

# KLAUKE CATALOGUE 2019/2020

[www.klauke.com](http://www.klauke.com)

**Electrical connection system** Crimping tools **Cutting tools** Holemaking tools **Universal tools**  
Hand tools **Cable pulling technology** Testing and measuring instruments



*Verbindungen mit **System**  
The **Power** of Partnership*

**Klauke**<sup>®</sup>

**WORLDWIDE DISTRIBUTION  
AND SERVICE NETWORK**



Your contact to Klauke Worldwide representatives see last pages of this catalogue or look at:



<https://www.klauke.com/en/service/service-contact/contact/>

**MORE THAN 135 YEARS  
OF EXPERIENCE**



**MADE IN GERMANY  
SINCE 1879**



**OUR COMPANY CERTIFICATES**



**ISO 9001:2015**  
Quality management system

**ISO 14001:2015**  
Environmental management system

**IATF 16949:2016**  
Quality standard for the automotive industry

**STRONG BRANDS FOR YOUR SUCCESS:**

**Klauke®**

ELECTRICAL CONNECTION SYSTEM,  
CRIMPING AND CUTTING TOOLS,  
HAND TOOLS

**GREENLEE®**

HOLEMAKING TOOLS, CABLE PULLING  
TECHNOLOGY, TESTING AND MEASURING  
INSTRUMENTS



**KLAUKE NEWS 2019**

**SYNCRIO CRIMPING TOOL  
SERIES K 06 AND K 09**

PAGE 236



**CRIMPING TOOL FOR  
INSULATED CABLE  
CONNECTIONS - NOW  
WITH ADDITIONAL  
LOCATOR  
K 82 AND K 82 T**

PAGE 221







D HY-  
TOOL  
TROL



**NEW**

VDE-BATTERY POWERED  
HYDRAULIC CRIMPING TOOL  
EKM 60 ID ISM  
10 - 240 MM<sup>2</sup>

CHAPTER ORANGE LINE  
PAGE 205-7





# ALWAYS THE BEST TOOL FOR YOUR NEEDS.



Electrical  
connection systems



Orange Line **NEW**  
VDE-battery powered hydraulic tools



Crimping



Cutting



Punching



Universal tools



Pumps



Hand tools



Cable-pulling  
technology



Testing and  
measuring  
instruments

**NEW**

VDE-BATTERY POWERED  
HYDRAULIC CUTTING TOOL  
50 MM DIA. FOR COPPER  
AND ALUMINIUM CABLE

CHAPTER ORANGE LINE  
PAGE 205-8



Technical Appendix  
Alphabetical Index  
Alpha Numerical Index

# OUR FIELDS OF EXPERTISE FIVE SECTORS, ONE QUALITY

We take your needs seriously. For us, “Made by Klauke” means that all products are produced to the highest quality.

## ELECTRICAL DISTRIBUTION - STRONG PARTNER WORLDWIDE



Klauke and Greenlee are your strong team - innovative, reliable and cost-effective. Together they form a connection that has been established for professional service providers worldwide in the energy supply and panel building industries.

## CUSTOMIZED TOOLS - IMPROVING FOR THE FUTURE



We are market leaders: Our battery-powered hydraulic tools for the plumbing, heating and ventilation industries are at the forefront of the crimped connections sector. But that's not enough for us: In the Customized Tools sector, our tool experts together with our customers are always developing new prototypes, no matter whether for the cutting, crimping or punching segment. We support you through the development process to the finished product including the After Sales service. We are at your service.



## AUTOMOTIVE CONNECTOR SOLUTIONS - KNOW-HOW FOR EXTRAORDINARY SOLUTIONS



Decades of experience go into the development and manufacture of our products for the automobile sector. From standard to custom and non-standard cable lugs - our solutions are used in any onboard systems.

## ASSEMBLY SOLUTIONS - SPECIAL TYPE OF QUALITY



We are at our customers' service. Klauke offers highly-flexible solutions for your specific requirements for small production runs in the industrial commodity sector. This includes punched parts, wiring harnesses and pre-assembled cables and connectors. For your custom products, we rely on our in-house development and production expertise. Customers from sectors such as automotive, heating, air-conditioning, white goods, renewable energies or e-mobility rely on our quality.

## CUSTOMIZED TOOLS - MATCHED SPECIFICALLY TO YOUR REQUIREMENTS



Klauke is a specialist for top-quality, hydraulic tools. Innovation has always taken top priority. We continuously develop new products in collaboration with our customers. We advise, develop and manufacture. Product design and fabrication are rounded out by the development and manufacture of matching processing tools. Perfectly adapted to the customer's manufacturing process and to meeting the exacting requirements of a quality management system. The proprietary CAD design allows customised solutions to be developed to the highest possible level and brought to production maturity.

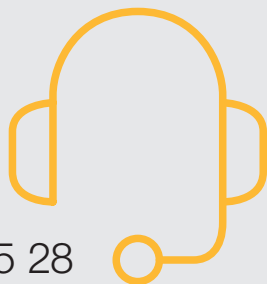
# KLAUKE AFTER SALES SERVICE - PERFECTLY TAILORED FOR YOUR DAY-TO-DAY WORK

Information exchange and close cooperation are an important Klauke quality feature, which is key to our customers' success. We look at the initial requirements through product development to find the best solution together. The best solution for us, though, does not end when the product is delivered, but continues with advice and service support.

## KLAUKE HOTLINE

**HOTLINE:**

0800 4 68 55 28



**Your direct link to our tool service offers:**

<http://www.klauke.com/en/support/tool-service/>



**Link to our support video:**

[youtube.com/watch?v=OPMgCGz7GQk](https://www.youtube.com/watch?v=OPMgCGz7GQk)



## KLAUKE SERVICE OFFERS



- Video support with live demonstration of your application and the product
- Your questions are answered immediately after prior agreement
- Service van for on-site service

## KLAUKE GUARANTEE

- Worldwide repair and maintenance service through over 60 authorised Service Centers (Klauke ASC).
- Full maintenance service with annual inspection and maintenance at fixed prices







**Klauke ASC<sup>®</sup>**  
*Authorised Service Center*

# THE BEST CONNECTION.

Thanks to the Klauke system, you can be sure that your connection will withstand any load. We find the right connector for every conductor.







# Electrical connection systems

<b>Copper tubular cable lugs and connectors</b>	<b>10</b>	<b>Aluminium/copper compression cable lugs and connectors</b>	<b>106</b>
Tubular cable lugs	10	Aluminium/copper compression cable lugs	108
Tubular cable lugs for switchgear connections	16	Aluminium/copper compression joints	111
Angle tubular cable lugs	17	Bi-metallic washer	114
Connectors	21	Tool application chart	115
Insulated tubular cable lugs und connectors	25		
Tubular cable lugs and connectors, blue connection®	28	<b>Clamps and screw connectors</b>	<b>116</b>
Tubular cable lugs and compression joints for solid conductors	30	Punched cable lugs - copper	118
Tubular cable lugs and connectors for fine stranded conductors	33	Screw connectors with soldering hole - brass	119
Tool application chart	38	Parallel groove clamps - copper	120
		C- and H-shaped clamps - copper	122
		Screw connector for shielded copper wires	124
<b>Tubular cable lugs and connectors - nickel, stainless steel</b>	<b>46</b>	Screw connectors for street lighting - brass	124
Tubular cable lugs and connectors - stainless steel	48	Screw connectors, high-resistant aluminium alloy	125
Tubular cable lugs and connectors - nickel	50	Compact tab connectors, high resistant aluminium alloy	130
Tool application chart	53	Tool application chart	133
<b>Copper compression cable lugs and connectors acc. to DIN</b>	<b>54</b>	<b>Cable end-sleeves</b>	<b>136</b>
Compression cable lugs acc. to DIN 46235	56	Cable end-sleeves DIN 46228, part 1 and part 2	138
Angle compression cable lugs	58	Insulated cable-end sleeves acc. to DIN 46228, part 4 and similar versions	141
Compression cable lugs, special type	62	Insulated cable end-sleeves for short circuit resistant conductors	146
Compression joints acc. to DIN 46267, part 1 and similar versions	64	Insulated twin cable-end sleeves	147
Tool application chart	69	Insulated cable-end sleeves, strips and tapes	148
		Tool application chart	150
<b>Copper terminals, connectors and pin terminals acc. to DIN</b>	<b>72</b>	<b>Cable connections, insulated and non insulated</b>	<b>154</b>
Solderless terminals acc. to DIN 46234	74	Insulated terminals	156
Insulated solderless terminals	76	Non insulated flat connectors	167
Solderless terminals, fork and pin type	78	Flexible connectors	172
Insulated solderless terminals for meter connections	80	Tool application chart	175
Solderless connectors acc. to DIN 46341, part 1	80		
Tool application chart	82	<b>Assortments</b>	<b>178</b>
		Pocket boxes with cable end-sleeves	180
<b>Sleeves for compacted conductors and sector-shaped conductors - copper</b>	<b>86</b>	Pocket boxes with insulated cable end-sleeves	180
		Assortment boxes with cable end-sleeves	185
<b>Aluminium compression cable lugs and connectors acc. to DIN</b>	<b>92</b>	Assortment boxes with insulated cable-end sleeves	186
Aluminium compression cable lugs acc. to DIN 46329 and similar versions	94	Assortment boxes with tubular and compression cable lugs	189
Aluminium compression joints acc. to DIN 46267 part 2 and similar versions	97	Assortment boxes with insulated terminals	190
Aluminium reduction compression joints	99	Steel carrying cases / bags	192
Aluminium compression joints, full tension	101		
Aluminium compression cable lugs and connectors for Al/St cables DIN EN 50182	102	<b>L-BOXes</b>	<b>198</b>
Tool application chart	103		



# THE CLASSIC - COPPER TUBULAR CABLE LUGS

Not every product becomes a classic at Klauke. Only the best ones. Tubular cable lugs made from high-quality electrolytic copper have been part of the Klauke standard range since 1960. The hallmarks: We handle all phases, from development to production. We monitor each and every step. The result: The certified classic remains - in every version.



#### **In brief**

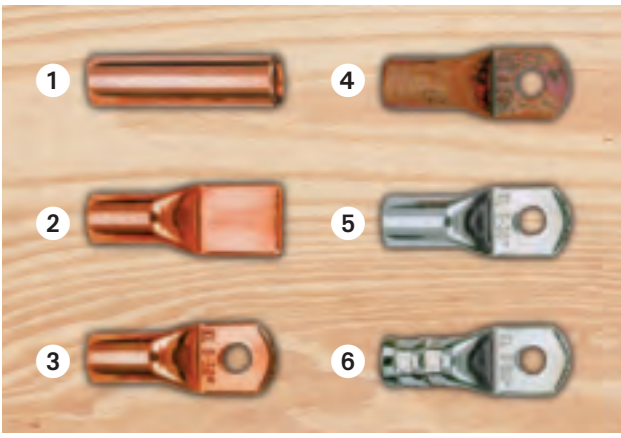
- ▶ **Everything from a single source, from development to production**
- ▶ **Best electrical conductivity thanks to electrolytic copper**
- ▶ **Available for all cross sections and in many special versions**
- ▶ **Tested to international standards**



► The system - Klauke connectors

At Klauke all products are matched to one another and we manufacture in our own factories. We think in your work steps – and produce everything systematically. Every cable lug, every tool for the perfect connection.

- Full flexibility through solutions for all conductor classes to DIN EN 60228
- For cables with compacted round conductors, cables with sector-shaped conductors and to suit individual requirements
- A single source - for everything from the cable lug to the tool for professional electrical installations



- |                        |                      |
|------------------------|----------------------|
| 1 Source material      | 4 Annealing          |
| 2 Folding and crimping | 5 Tinned end product |
| 3 Punching             | 6 After crimping     |

► The preparation - Traditional quality

The best material is the basis for quality products. For our classics we use - as for all Klauke products - exclusively high-quality material from certified suppliers. You get all our cable lugs with the optimum features. To achieve this, we manufacture using a special annealing process.

- Optimum conductivity, high loading capacity and increased safety thanks to high-quality materials
- Outstanding processing properties

► The proof - independent quality tests

Klauke aspires to its own high standard. We have this verified by several independent inspection authorities and have put ourselves through the tough IEC tests - with success.

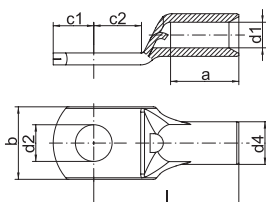
- IEC (International Electric Commission): The IEC is an advisory board for standards in the electrical engineering and electronics sector. The certifications encompass all areas of electrical engineering that have to meet especially high demands.
- UL (Underwriters Laboratories): UL is an independent organisation that examines and certifies products for safety. The certification is particularly important on the American market.

- DNV (Det Norske Veritas) and GL (Germanischer Lloyd): DNV and GL have now merged to form the world's largest consulting company for onshore and offshore systems.





## Tubular cable lugs, Cu, standard type



- ▶ Cable lug for fine-stranded round conductors, e.g. to DIN EN 60228 Cl. 5
- ▶ Simple processing thanks to inspection hole for monitoring full conductor insertion



### Characteristics

- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Item identification on cable lug



### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

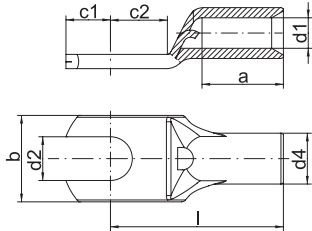
### Technical instructions

- Tool: see page 38

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
0.75	M3	91R3	1.3	6	6.0	3.2	2.8	3.25	4.0	12	0.060	100
	M4	91R4	1.3	6	6.5	4.3	2.8	4.00	5.0	13	0.060	100
	M5	91R5	1.3	6	7.5	5.3	2.8	4.75	5.5	14	0.060	100
1.5	M3	92R3	1.8	6	6.5	3.2	3.3	3.25	4.0	12	0.080	100
	M4	92R4	1.8	6	6.5	4.3	3.3	4.00	5.0	13	0.080	100
	M5	92R5	1.8	6	7.5	5.3	3.3	4.75	5.5	14	0.080	100
	M6	92R6	1.8	6	9.0	6.5	3.3	6.50	6.5	16	0.090	100
2.5	M3	93R3	2.3	6	7.5	3.2	4.2	3.25	4.0	12	0.120	100
	M4	93R4	2.3	6	7.5	4.3	4.2	4.00	5.0	13	0.120	100
	M5	93R5	2.3	6	8.5	5.3	4.2	4.75	5.5	14	0.130	100
	M6	93R6	2.3	6	9.5	6.5	4.2	6.50	6.5	16	0.150	100
	M8	93R8	2.3	6	13.0	8.5	4.2	7.75	9.5	20	0.180	100
4	M4	94R4	3.0	8	8.5	4.3	5.0	4.75	5.5	18	0.210	100
	M5	94R5	3.0	8	9.0	5.3	5.0	4.75	6.0	18	0.213	100
	M6	94R6	3.0	8	10.0	6.5	5.0	6.50	6.5	19	0.220	100
	M8	94R8	3.0	8	13.0	8.5	5.0	8.50	9.5	22	0.280	100
6	M4	95R4	4.0	9	9.5	4.3	6.0	5.00	5.5	18	0.290	100
	M5	95R5	4.0	9	9.5	5.3	6.0	6.00	6.0	19	0.300	100
	M6	95R6	4.0	9	10.0	6.5	6.0	7.00	6.5	19	0.300	100
	M8	95R8	4.0	9	14.0	8.5	6.0	8.50	9.5	22	0.320	100



## Tubular cable lugs, Cu, fork type



- ▶ Cable lug to 6 mm<sup>2</sup> for fine-stranded round conductors Cl. 5, 10 mm<sup>2</sup> and 16 mm<sup>2</sup> for multi-stranded round conductors Cl. 2, e.g. to DIN EN 60228
- ▶ Simple fork-type mounting
- ▶ Simple processing thanks to inspection hole to check the inserted conductor

### Characteristics

- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

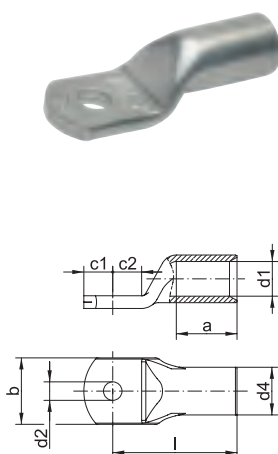
- Tool: see page 38

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
0.75	M3	<b>91C3</b>	1.3	6	6.0	3.2	2.8	3.25	4.0	12	0.06	100
	M4	<b>91C4</b>	1.3	6	6.5	4.3	2.8	4.00	5.0	13	0.05	100
	M5	<b>91C5</b>	1.3	6	7.5	5.3	2.8	4.75	5.5	14	0.06	100
1.5	M3	<b>92C3</b>	1.8	6	6.5	3.2	3.3	3.25	4.0	12	0.07	100
	M4	<b>92C4</b>	1.8	6	6.5	4.3	3.3	4.00	5.0	13	0.07	100
	M5	<b>92C5</b>	1.8	6	7.5	5.3	3.3	4.75	5.5	14	0.07	100
	M6	<b>92C6</b>	1.8	6	9.0	6.5	3.3	6.50	6.5	16	0.08	100
2.5	M3	<b>93C3</b>	2.3	6	7.5	3.2	4.2	3.25	4.0	12	0.12	100
	M4	<b>93C4</b>	2.3	6	7.5	4.3	4.2	4.00	5.0	13	0.11	100
	M5	<b>93C5</b>	2.3	6	8.5	5.3	4.2	4.75	5.5	14	0.12	100
4	M6	<b>93C6</b>	2.3	6	9.5	6.5	4.2	6.50	6.5	16	0.10	100
	M4	<b>94C4</b>	3.0	8	8.5	4.3	5.0	4.75	5.5	17	0.19	100
	M5	<b>94C5</b>	3.0	8	9.0	5.3	5.0	4.75	6.0	17	0.19	100
6	M6	<b>94C6</b>	3.0	8	10.0	6.5	5.0	6.50	6.5	19	0.21	100
	M8	<b>94C8</b>	3.0	8	13.0	8.5	5.0	8.50	9.5	22	0.24	100
	M4	<b>95C4</b>	4.0	9	9.5	4.3	6.0	5.00	5.5	18	0.27	100
	M5	<b>95C5</b>	4.0	9	9.5	5.3	6.0	6.00	6.0	19	0.32	100
10	M6	<b>95C6</b>	4.0	9	10.0	6.5	6.0	7.00	6.5	19	0.27	100
	M8	<b>95C8</b>	4.0	9	14.0	8.5	6.0	8.50	9.0	22	0.31	100
	M5	<b>96C5</b>	4.5	10	12.0	5.5	7.0	6.50	7.5	22	0.45	100
16	M6	<b>96C6</b>	4.5	10	12.0	6.5	7.0	6.50	7.5	22	0.41	100
	M8	<b>96C8</b>	4.5	10	15.0	8.5	7.0	10.00	10.0	25	0.52	100
	M5	<b>97C5</b>	5.5	13	12.0	5.5	8.5	5.50	6.5	26	0.81	100
16	M6	<b>97C6</b>	5.5	13	12.0	6.5	8.5	6.25	7.5	27	0.81	100
	M8	<b>97C8</b>	5.5	13	15.0	8.5	8.5	8.50	9.5	29	0.90	100





## Tubular cable lugs, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Ideal cable lug for control cabinet construction
- ▶ In combination with EKM 60 ID suitable for fine-stranded conductors



### Characteristics

- Annealed material optimises material and crimping properties
- To DIN EN 61373 class 1B vibration-tested
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Item identification on cable lug



### Material

- Copper (EN13600)



### Surface

- Tin-plated to protect against corrosion



### Technical instructions

- Tool: see page 38
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“



### Additional information

- Also available as featured article with inspection hole, part number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
6	M5	<b>1R5</b>	3.5	9	10	5.5	6.5	6.50	7.5	21	0.50	100
	M6	<b>1R6</b>	3.5	9	12	6.5	6.5	6.50	7.5	21	0.47	100
	M8	<b>1R8</b>	3.5	9	15	8.5	6.5	10.00	10.0	23	0.54	100
	M10	<b>1R10</b>	3.5	9	17	10.5	6.5	12.00	12.0	25	0.59	100
	M12	<b>1R12</b>	3.5	9	19	13.0	6.5	13.00	13.0	28	0.63	100
10	M5	<b>2R5</b>	4.5	10	12	5.5	7.0	6.50	7.5	22	0.50	100
	M6	<b>2R6</b>	4.5	10	12	6.5	7.0	6.50	7.5	22	0.49	100
	M8	<b>2R8</b>	4.5	10	15	8.5	7.0	10.00	10.0	25	0.58	100
	M10	<b>2R10</b>	4.5	10	17	10.5	7.0	12.00	12.0	27	0.62	100
	M12	<b>2R12</b>	4.5	10	19	13.0	7.0	13.00	13.0	29	0.64	100
16	M5	<b>3R5</b>	5.5	13	12	5.5	8.5	5.50	6.5	26	0.84	100
	M6	<b>3R6</b>	5.5	13	12	6.5	8.5	6.25	7.5	27	0.86	100
	M8	<b>3R8</b>	5.5	13	15	8.5	8.5	8.50	9.5	29	0.93	100
	M10	<b>3R10</b>	5.5	13	17	10.5	8.5	10.50	11.5	31	0.99	100
	M12	<b>3R12</b>	5.5	13	19	13.0	8.5	12.00	13.0	33	1.02	100
25	M5	<b>4R5</b>	7.0	15	14	5.5	10.0	7.50	7.5	30	1.22	25
	M6	<b>4R6</b>	7.0	15	14	6.5	10.0	7.50	7.5	30	1.20	100
	M8	<b>4R8</b>	7.0	15	16	8.5	10.0	10.00	10.0	32	1.31	100
	M10	<b>4R10</b>	7.0	15	18	10.5	10.0	12.00	12.0	34	1.57	100
	M12	<b>4R12</b>	7.0	15	19	13.0	10.0	13.00	13.0	35	1.39	25
	M14	<b>4R14</b>	7.0	15	21	15.0	10.0	14.50	14.5	38	1.49	25
35	M6	<b>5R6</b>	8.5	17	17	6.5	12.0	7.50	7.5	32	1.85	100
	M8	<b>5R8</b>	8.5	17	17	8.5	12.0	10.00	10.0	34	2.00	100
	M10	<b>5R10</b>	8.5	17	19	10.5	12.0	12.00	12.0	37	2.13	100
	M12	<b>5R12</b>	8.5	17	21	13.0	12.0	13.00	13.0	38	2.12	100
	M14	<b>5R14</b>	8.5	17	21	15.0	12.0	14.50	14.5	40	2.18	25
	M16	<b>5R16</b>	8.5	17	26	17.0	12.0	16.00	16.0	42	2.24	25

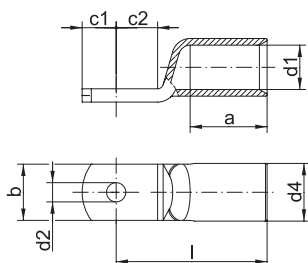
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### Tubular cable lugs, Cu, standard type

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
50	M6	<b>6R6</b>	10.0	19	20	6.5	14.0	10.00	10.0	37	3.00	25
	M8	<b>6R8</b>	10.0	19	20	8.5	14.0	10.00	10.0	37	2.93	50
	M10	<b>6R10</b>	10.0	19	20	10.5	14.0	12.00	12.0	39	3.08	50
	M12	<b>6R12</b>	10.0	19	23	13.0	14.0	13.00	13.0	43	3.23	50
	M14	<b>6R14</b>	10.0	19	23	15.0	14.0	14.50	14.5	45	3.32	25
	M16	<b>6R16</b>	10.0	19	28	17.0	14.0	16.00	16.0	46	3.38	25
	M20	<b>6R20</b>	10.0	19	30	21.0	14.0	19.00	19.0	48	3.46	25
70	M6	<b>7R6</b>	12.0	21	23	6.5	16.5	10.00	10.0	43	4.49	25
	M8	<b>7R8</b>	12.0	21	23	8.5	16.5	10.00	10.0	43	4.38	50
	M10	<b>7R10</b>	12.0	21	23	10.5	16.5	12.00	12.0	44	4.54	50
	M12	<b>7R12</b>	12.0	21	23	13.0	16.5	13.00	13.0	46	4.63	50
	M14	<b>7R14</b>	12.0	21	23	15.0	16.5	14.50	14.5	48	4.76	25
	M16	<b>7R16</b>	12.0	21	28	17.0	16.5	16.00	16.0	50	4.24	25
	M20	<b>7R20</b>	12.0	21	30	21.0	16.5	19.00	19.0	53	5.09	25
95	M8	<b>8R8</b>	13.5	25	26	8.5	18.0	12.00	12.0	48	5.44	25
	M10	<b>8R10</b>	13.5	25	26	10.5	18.0	12.00	12.0	48	5.40	50
	M12	<b>8R12</b>	13.5	25	26	13.0	18.0	13.00	13.0	49	5.56	50
	M14	<b>8R14</b>	13.5	25	26	15.0	18.0	14.50	14.5	51	5.62	25
	M16	<b>8R16</b>	13.5	25	28	17.0	18.0	16.00	16.0	54	5.82	50
	M20	<b>8R20</b>	13.5	25	36	21.0	18.0	22.00	22.0	60	6.71	25
120	M8	<b>9R8</b>	15.0	26	28	8.5	19.5	14.00	14.0	51	6.72	25
	M10	<b>9R10</b>	15.0	26	28	10.5	19.5	14.00	14.0	51	6.57	50
	M12	<b>9R12</b>	15.0	26	28	13.0	19.5	14.00	14.0	51	6.38	50
	M14	<b>9R14</b>	15.0	26	28	15.0	19.5	15.00	15.0	52	6.45	25
	M16	<b>9R16</b>	15.0	26	30	17.0	19.5	16.00	16.0	54	6.51	50
150	M20	<b>9R20</b>	15.0	26	36	21.0	19.5	22.00	22.0	63	7.74	25
	M8	<b>10R8</b>	16.5	30	31	8.5	21.0	14.00	14.0	56	7.78	10
	M10	<b>10R10</b>	16.5	30	31	10.5	21.0	14.00	14.0	56	7.62	10
	M12	<b>10R12</b>	16.5	30	31	13.0	21.0	15.00	15.0	57	7.73	25
	M14	<b>10R14</b>	16.5	30	31	15.0	21.0	15.00	15.0	57	7.64	10
185	M16	<b>10R16</b>	16.5	30	31	17.0	21.0	16.00	16.0	58	7.53	10
	M20	<b>10R20</b>	16.5	30	36	21.0	21.0	22.00	22.0	66	8.80	10
	M10	<b>11R10</b>	19.0	30	35	10.5	24.0	18.00	18.0	65	11.75	10
	M12	<b>11R12</b>	19.0	30	35	13.0	24.0	18.00	18.0	65	11.82	10
	M14	<b>11R14</b>	19.0	30	35	15.0	24.0	18.00	18.0	65	11.39	10
240	M16	<b>11R16</b>	19.0	30	35	17.0	24.0	18.00	18.0	65	11.24	25
	M20	<b>11R20</b>	19.0	30	39	21.0	24.0	22.00	22.0	69	12.00	10
	M10	<b>12R10</b>	21.0	35	39	10.5	26.0	21.50	19.0	72	14.72	10
	M12	<b>12R12</b>	21.0	35	39	13.0	26.0	21.50	19.0	72	14.55	10
	M14	<b>12R14</b>	21.0	35	39	15.0	26.0	21.50	19.0	72	14.24	10
300	M16	<b>12R16</b>	21.0	35	39	17.0	26.0	21.50	19.0	72	14.09	25
	M20	<b>12R20</b>	21.0	35	39	21.0	26.0	21.50	19.0	72	13.60	10
	M12	<b>13R12</b>	23.5	44	43	13.0	29.5	24.00	24.0	87	23.33	5
	M14	<b>13R14</b>	23.5	44	43	15.0	29.5	24.00	24.0	87	23.14	5
400	M16	<b>13R16</b>	23.5	44	43	17.0	29.5	24.00	24.0	87	22.74	5
	M20	<b>13R20</b>	23.5	44	43	21.0	29.5	24.00	24.0	87	22.19	5
	M12	<b>14R12</b>	27.0	44	49	13.0	34.0	24.00	24.0	90	32.41	5
	M14	<b>14R14</b>	27.0	44	49	15.0	34.0	24.00	24.0	90	32.24	5
400	M16	<b>14R16</b>	27.0	44	49	17.0	34.0	24.00	24.0	90	31.98	5
	M20	<b>14R20</b>	27.0	44	49	21.0	34.0	24.00	24.0	90	31.41	5

## Tubular cable lugs for switchgear connections, standard type



- ▶ For multi-stranded, round conductors e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ For connecting in switch cabinets with reduced connecting space
- ▶ Narrow palm version manufactured without material loss
- ▶ In combination with EKM 60 ID suitable for fine-stranded conductors

### Characteristics

- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 38
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

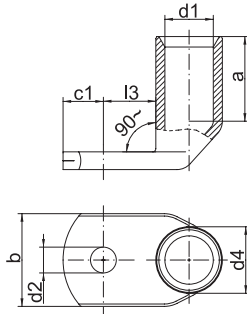
### Additional information

- Also available as featured article with inspection hole, part number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
35	M6	<b>5SG6</b>	8.5	17	15.0	6.5	12.0	7.5	7.5	32	1.78	25
		<b>6SG6</b>	10.0	19	15.0	6.5	14.0	10.0	10.0	37	2.95	25
50	M8	<b>6SG8</b>	10.0	19	17.0	8.5	14.0	10.0	10.0	37	2.82	25
	M10	<b>6SG10</b>	10.0	19	19.0	10.5	14.0	11.5	12.0	39	3.08	25
70	M6	<b>7SG6</b>	12.0	21	17.0	6.5	16.5	10.0	10.0	43	4.22	25
	M8	<b>7SG8</b>	12.0	21	17.0	8.5	16.5	10.0	10.0	43	4.10	25
	M10	<b>7SG10</b>	12.0	21	19.0	10.5	16.5	11.5	12.0	44	4.45	25
	M12	<b>7SG12</b>	12.0	21	19.0	13.0	16.5	13.0	13.0	46	4.22	25
95	M6	<b>8SG6</b>	13.5	25	19.0	6.5	18.0	11.5	12.0	48	5.49	25
	M8	<b>8SG8</b>	13.5	25	19.0	8.5	18.0	11.5	12.0	48	5.46	25
	M10	<b>8SG10</b>	13.5	25	19.0	10.5	18.0	11.5	12.0	48	5.13	25
	M12	<b>8SG12</b>	13.5	25	19.0	13.0	18.0	13.0	13.0	49	5.15	25
120	M6	<b>9SG6</b>	15.0	26	19.0	6.5	19.5	11.5	14.0	51	6.16	10
	M8	<b>9SG8</b>	15.0	26	19.0	8.5	19.5	11.5	14.0	51	5.94	10
	M10	<b>9SG10</b>	15.0	26	19.0	10.5	19.5	11.5	14.0	51	5.81	10
	M12	<b>9SG12</b>	15.0	26	19.0	13.0	19.5	14.0	14.0	51	5.92	10
150	M6	<b>10SG6</b>	16.5	30	19.0	6.5	21.0	11.5	14.0	56	6.85	10
	M8	<b>10SG8</b>	16.5	30	19.0	8.5	21.0	11.5	14.0	56	6.80	10
	M10	<b>10SG10</b>	16.5	30	19.0	10.5	21.0	11.5	14.0	56	6.75	10
	M12	<b>10SG12</b>	16.5	30	19.0	13.0	21.0	15.0	15.0	57	7.15	10
185	M10	<b>11SG10</b>	19.0	30	24.5	10.5	24.0	11.5	18.0	65	10.59	10
	M12	<b>11SG12</b>	19.0	30	31.0	13.0	24.0	18.0	18.0	65	11.09	10
240	M16	<b>11SG16</b>	19.0	30	31.0	17.0	24.0	18.0	18.0	65	9.76	10
	M10	<b>12SG10</b>	21.0	35	31.0	10.5	26.0	11.5	19.0	72	12.70	5
300	M12	<b>12SG12</b>	21.0	35	31.0	13.0	26.0	21.5	19.0	72	13.72	5
	M16	<b>12SG16</b>	21.0	35	31.0	17.0	26.0	21.5	19.0	72	13.28	5
	M10	<b>13SG10</b>	23.5	44	31.0	10.5	30.0	11.5	24.0	87	19.70	5
300	M12	<b>13SG12</b>	23.5	44	31.0	13.0	30.0	24.0	24.0	87	22.72	5
	M16	<b>13SG16</b>	23.5	44	31.0	17.0	30.0	24.0	24.0	87	22.50	5



## Angled tubular cable lugs, Cu, 90° angled, standard type



- ▶ For multi-stranded, round conductors e.g. to DIN EN 60228
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Flat contact surface by special angle pressing technology
- ▶ In combination with the EKM 60 ID suitable for fine stranded conductors

### Characteristics

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 38
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Also available as featured article with inspection hole, part number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
6	M5	<b>41R5</b>	3.5	9	10	5.5	6.5	7.5	9	0.59	50
	M6	<b>41R6</b>	3.5	9	12	6.5	6.5	7.5	10	0.58	50
	M8	<b>41R8</b>	3.5	9	14	8.5	6.5	10.0	13	0.61	50
	M10	<b>41R10</b>	3.5	9	17	10.5	6.5	12.0	15	0.65	50
	M12	<b>41R12</b>	3.5	9	19	13.0	6.5	13.0	17	0.62	50
10	M5	<b>42R5</b>	4.5	10	12	5.5	7.0	6.5	10	0.57	50
	M6	<b>42R6</b>	4.5	10	12	6.5	7.0	6.5	10	0.57	50
	M8	<b>42R8</b>	4.5	10	15	8.5	7.0	10.0	13	0.63	50
	M10	<b>42R10</b>	4.5	10	17	10.5	7.0	12.0	15	0.66	50
	M12	<b>42R12</b>	4.5	10	19	13.0	7.0	13.0	18	0.81	50
16	M5	<b>43R5</b>	5.5	13	12	5.5	8.5	7.5	10	1.01	50
	M6	<b>43R6</b>	5.5	13	12	6.5	8.5	7.5	11	1.01	50
	M8	<b>43R8</b>	5.5	13	15	8.5	8.5	10.0	13	1.08	50
	M10	<b>43R10</b>	5.5	13	17	10.5	8.5	12.0	15	1.09	50
	M12	<b>43R12</b>	5.5	13	19	13.0	8.5	13.0	18	1.15	50
25	M5	<b>44R5</b>	7.0	15	14	5.5	10.0	7.5	11	1.40	25
	M6	<b>44R6</b>	7.0	15	14	6.5	10.0	7.5	11	1.32	25
	M8	<b>44R8</b>	7.0	15	16	8.5	10.0	10.0	13	1.44	25
	M10	<b>44R10</b>	7.0	15	18	10.5	10.0	12.0	15	1.49	25
	M12	<b>44R12</b>	7.0	15	19	13.0	10.0	13.0	18	1.44	25
35	M14	<b>44R14</b>	7.0	15	21	15.0	10.0	14.5	20	1.55	25
	M6	<b>45R6</b>	8.5	17	17	6.5	12.0	7.5	11	2.05	25
	M8	<b>45R8</b>	8.5	17	17	8.5	12.0	10.0	13	2.20	25
	M10	<b>45R10</b>	8.5	17	19	10.5	12.0	12.0	15	2.28	25
	M12	<b>45R12</b>	8.5	17	21	13.0	12.0	13.0	18	2.38	25
	M14	<b>45R14</b>	8.5	17	21	15.0	12.0	14.5	20	2.41	25
	M16	<b>45R16</b>	8.5	17	26	17.0	12.0	16.0	22	2.40	25

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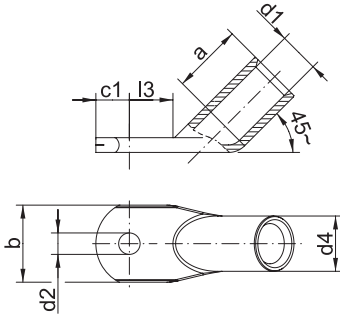
**Angled tubular cable lugs, Cu, 90° angled, standard type**

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
50	M6	<b>46R6</b>	10.0	19	20	6.5	14.0	10.0	13	3.34	25
	M8	<b>46R8</b>	10.0	19	20	8.5	14.0	10.0	13	3.28	25
	M10	<b>46R10</b>	10.0	19	20	10.5	14.0	12.0	16	3.47	25
	M12	<b>46R12</b>	10.0	19	23	13.0	14.0	13.0	18	3.42	25
	M14	<b>46R14</b>	10.0	19	23	15.0	14.0	14.5	20	3.55	25
	M16	<b>46R16</b>	10.0	19	28	17.0	14.0	16.0	22	3.58	25
70	M20	<b>46R20</b>	10.0	19	30	21.0	14.0	19.0	24	3.15	25
	M6	<b>47R6</b>	12.0	21	23	6.5	16.5	10.0	13	4.90	25
	M8	<b>47R8</b>	12.0	21	23	8.5	16.5	10.0	14	4.80	25
	M10	<b>47R10</b>	12.0	21	23	10.5	16.5	12.0	16	4.88	25
	M12	<b>47R12</b>	12.0	21	23	13.0	16.5	13.0	18	4.99	25
	M14	<b>47R14</b>	12.0	21	23	15.0	16.5	14.5	20	5.38	25
95	M16	<b>47R16</b>	12.0	21	28	17.0	16.5	16.0	22	5.35	25
	M20	<b>47R20</b>	12.0	21	30	21.0	16.5	19.0	24	5.30	25
	M8	<b>48R8</b>	13.5	25	26	8.5	18.0	12.0	14	5.89	25
	M10	<b>48R10</b>	13.5	25	26	10.5	18.0	12.0	17	5.88	25
	M12	<b>48R12</b>	13.5	25	26	13.0	18.0	13.0	18	5.93	25
	M14	<b>48R14</b>	13.5	25	26	15.0	18.0	14.5	20	6.03	25
120	M16	<b>48R16</b>	13.5	25	28	17.0	18.0	16.0	22	6.17	25
	M20	<b>48R20</b>	13.5	25	36	21.0	18.0	22.0	24	6.42	25
	M8	<b>49R8</b>	15.0	26	28	8.5	19.5	14.0	16	7.26	10
	M10	<b>49R10</b>	15.0	26	28	10.5	19.5	14.0	17	7.30	10
	M12	<b>49R12</b>	15.0	26	28	13.0	19.5	14.0	18	7.19	10
	M14	<b>49R14</b>	15.0	26	28	15.0	19.5	15.0	20	7.30	10
150	M16	<b>49R16</b>	15.0	26	30	17.0	19.5	16.0	22	7.35	10
	M20	<b>49R20</b>	15.0	26	36	21.0	19.5	22.0	24	7.60	10
	M8	<b>50R8</b>	16.5	30	31	8.5	21.0	14.0	16	8.41	10
	M10	<b>50R10</b>	16.5	30	31	10.5	21.0	14.0	17	8.27	10
	M12	<b>50R12</b>	16.5	30	31	13.0	21.0	15.0	18	8.34	10
	M14	<b>50R14</b>	16.5	30	31	15.0	21.0	15.0	20	8.52	10
185	M16	<b>50R16</b>	16.5	30	31	17.0	21.0	16.0	22	8.62	10
	M20	<b>50R20</b>	16.5	30	36	21.0	21.0	22.0	24	9.10	10
	M10	<b>51R10</b>	19.0	30	35	10.5	24.0	18.0	22	12.17	10
	M12	<b>51R12</b>	19.0	30	35	13.0	24.0	18.0	22	11.97	10
	M14	<b>51R14</b>	19.0	30	35	15.0	24.0	18.0	22	11.77	10
	M16	<b>51R16</b>	19.0	30	35	17.0	24.0	18.0	22	11.53	10
240	M20	<b>51R20</b>	19.0	30	39	21.0	24.0	22.0	24	12.00	10
	M10	<b>52R10</b>	21.0	35	39	10.5	26.0	21.5	22	15.60	10
	M12	<b>52R12</b>	21.0	35	39	13.0	26.0	21.5	22	15.60	10
	M14	<b>52R14</b>	21.0	35	39	15.0	26.0	21.5	22	15.41	10
	M16	<b>52R16</b>	21.0	35	39	17.0	26.0	21.5	22	15.18	10
	M20	<b>52R20</b>	21.0	35	39	21.0	26.0	21.5	24	14.80	10
300	M12	<b>53R12</b>	23.5	44	43	13.0	29.5	24.0	24	23.60	5
	M14	<b>53R14</b>	23.5	44	43	15.0	29.5	24.0	24	23.40	5
	M16	<b>53R16</b>	23.5	44	43	17.0	29.5	24.0	24	20.99	5
	M20	<b>53R20</b>	23.5	44	43	21.0	29.5	24.0	24	22.70	5
400	M12	<b>54R12</b>	27.0	44	49	13.0	34.0	24.0	24	32.53	5
	M14	<b>54R14</b>	27.0	44	49	15.0	34.0	24.0	24	33.40	5
	M16	<b>54R16</b>	27.0	44	49	17.0	34.0	24.0	24	32.60	5
	M20	<b>54R20</b>	27.0	44	49	21.0	34.0	24.0	24	31.80	5





## Angled tubular cable lugs, Cu, 45° angled, standard type



- ▶ For multi-stranded, round conductors e.g. to DIN EN 60228
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Flat contact surface by special angle pressing technology
- ▶ In combination with EKM 60 ID suitable for fine-stranded conductors

### Characteristics

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 38
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Also available as featured article with inspection hole, part number appendix „MS“

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
6	M5	41R545	3.5	9	10	5.5	6.5	7.5	9	0.60	50
	M6	41R645	3.5	9	12	6.5	6.5	7.5	10	0.58	50
	M8	41R845	3.5	9	14	8.5	6.5	10.0	13	0.68	50
	M10	41R1045	3.5	9	17	10.5	6.5	12.0	15	0.70	50
	M12	41R1245	3.5	9	19	13.0	6.5	13.0	17	0.70	50
10	M5	42R545	4.5	10	12	5.5	7.0	6.5	10	0.57	50
	M6	42R645	4.5	10	12	6.5	7.0	6.5	10	0.57	50
	M8	42R845	4.5	10	15	8.5	7.0	10.0	13	0.63	50
	M10	42R1045	4.5	10	17	10.5	7.0	12.0	15	0.68	50
	M12	42R1245	4.5	10	19	13.0	7.0	13.0	18	0.68	50
16	M5	43R545	5.5	13	12	5.5	8.5	7.5	10	1.01	50
	M6	43R645	5.5	13	12	6.5	8.5	7.5	11	1.06	50
	M8	43R845	5.5	13	15	8.5	8.5	10.0	13	1.15	50
	M10	43R1045	5.5	13	17	10.5	8.5	12.0	15	1.09	50
	M12	43R1245	5.5	13	19	13.0	8.5	13.0	18	1.15	50
25	M5	44R545	7.0	15	14	5.5	10.0	7.5	11	1.40	25
	M6	44R645	7.0	15	14	6.5	10.0	7.5	11	1.32	25
	M8	44R845	7.0	15	16	8.5	10.0	10.0	13	1.44	25
	M10	44R1045	7.0	15	18	10.5	10.0	12.0	15	1.49	25
	M12	44R1245	7.0	15	19	13.0	10.0	13.0	18	1.44	25
35	M14	44R1445	7.0	15	21	15.0	10.0	14.5	20	1.55	25
	M6	45R645	8.5	17	17	6.5	12.0	7.5	11	2.05	25
	M8	45R845	8.5	17	17	8.5	12.0	10.0	13	2.20	25
	M10	45R1045	8.5	17	19	10.5	12.0	12.0	15	2.28	25
	M12	45R1245	8.5	17	21	13.0	12.0	13.0	18	2.38	25
35	M14	45R1445	8.5	17	21	15.0	12.0	14.5	20	2.41	25
	M16	45R1645	8.5	17	26	17.0	12.0	16.0	22	2.40	25

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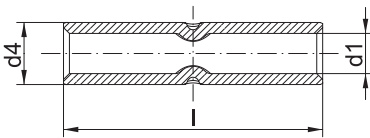


**Angled tubular cable lugs, Cu, 45° angled, standard type**

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
50	M6	<b>46R645</b>	10.0	19	20	6.5	14.0	10.0	13	3.43	25
	M8	<b>46R845</b>	10.0	19	20	8.5	14.0	10.0	13	3.28	25
	M10	<b>46R1045</b>	10.0	19	20	10.5	14.0	12.0	16	3.47	25
	M12	<b>46R1245</b>	10.0	19	23	13.0	14.0	13.0	18	3.42	25
	M14	<b>46R1445</b>	10.0	19	23	15.0	14.0	14.5	20	3.65	25
	M16	<b>46R1645</b>	10.0	19	28	17.0	14.0	16.0	22	3.76	25
	M20	<b>46R2045</b>	10.0	19	30	21.0	14.0	19.0	24	3.30	25
70	M6	<b>47R645</b>	12.0	21	23	6.5	16.5	10.0	13	5.06	25
	M8	<b>47R845</b>	12.0	21	23	8.5	16.5	10.0	14	5.06	25
	M10	<b>47R1045</b>	12.0	21	23	10.5	16.5	12.0	16	5.25	25
	M12	<b>47R1245</b>	12.0	21	23	13.0	16.5	13.0	18	5.30	25
	M14	<b>47R1445</b>	12.0	21	23	15.0	16.5	14.5	20	5.60	25
	M16	<b>47R1645</b>	12.0	21	28	17.0	16.5	16.0	22	5.61	25
	M20	<b>47R2045</b>	12.0	21	30	21.0	16.5	19.0	24	5.60	25
95	M8	<b>48R845</b>	13.5	25	26	8.5	18.0	12.0	14	6.19	25
	M10	<b>48R1045</b>	13.5	25	26	10.5	18.0	12.0	17	5.70	25
	M12	<b>48R1245</b>	13.5	25	26	13.0	18.0	13.0	18	6.67	25
	M14	<b>48R1445</b>	13.5	25	26	15.0	18.0	14.5	20	6.60	25
	M16	<b>48R1645</b>	13.5	25	28	17.0	18.0	16.0	22	6.78	25
	M20	<b>48R2045</b>	13.5	25	36	21.0	18.0	22.0	24	6.80	25
120	M8	<b>49R845</b>	15.0	26	28	8.5	19.5	14.0	16	7.92	10
	M10	<b>49R1045</b>	15.0	26	28	10.5	19.5	14.0	17	7.99	10
	M12	<b>49R1245</b>	15.0	26	28	13.0	19.5	14.0	18	7.96	10
	M14	<b>49R1445</b>	15.0	26	28	15.0	19.5	15.0	20	7.94	10
	M16	<b>49R1645</b>	15.0	26	30	17.0	19.5	16.0	22	8.26	10
	M20	<b>49R2045</b>	15.0	26	36	21.0	19.5	22.0	24	8.20	10
150	M8	<b>50R845</b>	16.5	30	31	8.5	21.0	14.0	16	9.00	10
	M10	<b>50R1045</b>	16.5	30	31	10.5	21.0	14.0	17	9.15	10
	M12	<b>50R1245</b>	16.5	30	31	13.0	21.0	15.0	18	8.75	10
	M14	<b>50R1445</b>	16.5	30	31	15.0	21.0	15.0	20	9.20	10
	M16	<b>50R1645</b>	16.5	30	31	17.0	21.0	16.0	22	9.22	10
	M20	<b>50R2045</b>	16.5	30	36	21.0	21.0	22.0	24	9.26	10
185	M10	<b>51R1045</b>	19.0	30	35	10.5	24.0	18.0	22	13.30	10
	M12	<b>51R1245</b>	19.0	30	35	13.0	24.0	18.0	22	13.32	10
	M14	<b>51R1445</b>	19.0	30	35	15.0	24.0	18.0	22	13.40	10
	M16	<b>51R1645</b>	19.0	30	35	17.0	24.0	18.0	22	12.80	10
	M20	<b>51R2045</b>	19.0	30	39	21.0	24.0	22.0	24	13.10	10
240	M10	<b>52R1045</b>	21.0	35	39	10.5	26.0	21.5	22	16.28	10
	M12	<b>52R1245</b>	21.0	35	39	13.0	26.0	21.5	22	16.80	10
	M14	<b>52R1445</b>	21.0	35	39	15.0	26.0	21.5	22	16.40	10
	M16	<b>52R1645</b>	21.0	35	39	17.0	26.0	21.5	22	16.10	10
	M20	<b>52R2045</b>	21.0	35	39	21.0	26.0	21.5	24	16.10	10
300	M12	<b>53R1245</b>	23.5	44	43	13.0	29.5	24.0	24	24.08	5
	M14	<b>53R1445</b>	23.5	44	43	15.0	29.5	24.0	24	24.20	5
	M16	<b>53R1645</b>	23.5	44	43	17.0	29.5	24.0	24	23.23	5
	M20	<b>53R2045</b>	23.5	44	43	21.0	29.5	24.0	24	23.50	5
400	M12	<b>54R1245</b>	27.0	44	49	13.0	34.0	24.0	24	34.00	5
	M14	<b>54R1445</b>	27.0	44	49	15.0	34.0	24.0	24	33.40	5
	M16	<b>54R1645</b>	27.0	44	49	17.0	34.0	24.0	24	34.28	5
	M20	<b>54R2045</b>	27.0	44	49	21.0	34.0	24.0	24	31.80	5



## Butt connectors, Cu, standard type



- ▶ For multi-stranded, round conductors e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Simple cable entry for internal chamfer
- ▶ In combination with EKM 60 ID suitable for fine-stranded conductors

### Characteristics

- Simple and safe processing due to butt mark
- Annealed material optimises material and crimping properties
- Item identification on cable lug

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 38
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Also available as featured article without buttmark, part number appendix „OM“

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
0.75	17R	1.3	2.8	20	0.09	100
1.5	18R	1.8	3.3	25	0.12	100
2.5	19R	2.3	4.2	25	0.20	100
4	20R	3.0	5.0	25	0.26	100
6	21R	3.5	6.5	25	0.50	100
10	22R	4.5	7.0	30	0.72	100
16	23R	5.5	8.5	35	1.00	100
25	24R	7.0	10.0	40	1.41	50
35	25R	8.5	12.0	45	2.24	50
50	26R	10.0	14.0	50	3.36	50
70	27R	12.0	16.5	55	4.87	50
95	28R	13.5	18.0	60	5.91	25
120	29R	15.0	19.5	65	7.00	25
150	30R	16.5	21.0	70	8.12	10
185	31R	19.0	24.0	75	10.06	10
240	32R	21.0	26.0	85	13.82	10
300	33R	23.5	29.5	100	21.94	5
400	34R	27.0	34.0	100	29.65	5



## Parallel connectors, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ Ideal for connecting differing cable cross-sections
- ▶ Simple cable entry due to internal chamfer

### Characteristics

- Annealed material optimises material and crimping properties

### Material

- Copper (EN13600)

### Surface

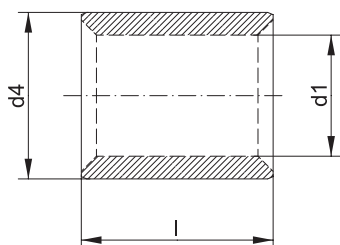
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 38

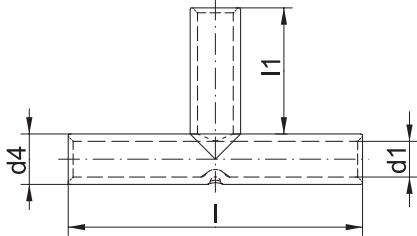
### Additional information

- The stated nominal cross-section corresponds to the total cross-section of the cable
- Additional conductor types and combinations on request



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
1.5	<b>148R</b>	1.8	3.3	5	0.03	100
2.5	<b>149R</b>	2.3	4.2	5	0.04	100
4	<b>150R</b>	3.0	5.0	7	0.08	100
6	<b>151R</b>	4.0	6.0	7	0.09	100
10	<b>152R</b>	4.5	7.0	9	0.17	100
16	<b>153R</b>	5.5	8.5	10	0.28	100
25	<b>154R</b>	7.0	10.0	13	0.44	100
35	<b>155R</b>	8.5	12.0	16	0.78	100
50	<b>156R</b>	10.0	14.0	19	1.22	100
70	<b>157R</b>	12.0	16.5	19	1.62	50
95	<b>158R</b>	13.5	18.0	20	1.90	50
120	<b>159R</b>	15.0	19.5	22	2.28	50
150	<b>160R</b>	16.5	21.0	26	3.00	50
185	<b>161R</b>	19.0	24.0	30	4.37	50
240	<b>162R</b>	21.0	26.0	32	5.30	25
300	<b>163R</b>	23.5	29.5	36	8.05	25

## T-connectors, Cu, standard type



- ▶ For multi-stranded, round conductors e.g. to DIN EN 60228
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Special version for cable tap conductors



### Characteristics

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer



### Material

- Copper (EN13600)



### Surface

- Tin-plated to protect against corrosion



### Technical instructions

- Tool: see page 38
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

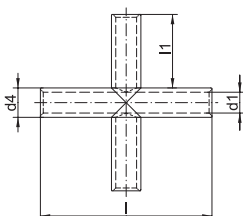


Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1		
1.5	<b>TV15</b>	1.8	3.3	30	12	0.23	50
2.5	<b>TV2.5</b>	2.3	4.2	30	12	0.37	50
4	<b>TV4</b>	3.0	5.0	30	12	0.45	50
6	<b>TV6</b>	4.0	6.0	35	14	0.73	50
10	<b>TV10</b>	4.5	7.0	35	14	1.05	50
16	<b>TV16</b>	5.5	8.5	50	21	2.20	50
25	<b>TV25</b>	7.0	10.0	55	23	2.90	25
35	<b>TV35</b>	8.5	12.0	70	30	5.20	25
50	<b>TV50</b>	10.0	14.0	80	34	7.90	25
70	<b>TV70</b>	12.0	16.5	85	35	11.20	10
95	<b>TV95</b>	13.5	18.0	90	36	13.00	10
120	<b>TV120</b>	15.0	19.5	95	38	14.70	10
150	<b>TV150</b>	16.5	21.0	110	44	18.90	10
185	<b>TV185</b>	19.0	24.0	115	45	25.00	5
240	<b>TV240</b>	21.0	26.0	130	52	31.10	5





**Cross-connectors, Cu, standard type**



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Version for double cable tap conductors



**Characteristics**

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer



**Material**

- Copper (EN13600)



**Surface**

- Tin-plated to protect against corrosion



**Technical instructions**

- Tool: see page 38
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1		
1.5	<b>KV15</b>	1.8	3.3	30	12	0.320	25
2.5	<b>KV2.5</b>	2.3	4.2	30	12	0.490	25
4	<b>KV4</b>	3.0	5.0	30	12	0.650	25
6	<b>KV6</b>	4.0	6.0	35	14	0.950	25
10	<b>KV10</b>	4.5	7.0	35	14	1.350	25
16	<b>KV16</b>	5.5	8.5	50	21	2.950	25
25	<b>KV25</b>	7.0	10.0	55	23	4.000	15
35	<b>KV35</b>	8.5	12.0	70	30	6.900	15
50	<b>KV50</b>	10.0	14.0	80	34	10.400	15
70	<b>KV70</b>	12.0	16.5	85	35	14.600	15
95	<b>KV95</b>	13.5	18.0	90	36	17.100	15
120	<b>KV120</b>	15.0	19.5	95	38	19.400	5
150	<b>KV150</b>	16.5	21.0	110	44	24.100	5
185	<b>KV185</b>	19.0	24.0	115	45	32.100	5
240	<b>KV240</b>	21.0	26.0	130	52	41.100	5



## Insulated tubular cable lugs, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ No additional insulation of the crimped connection required
- ▶ Is directly crimped with the insulation

### Characteristics

- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Heat resistant to 105° C

### Material

- Cable lug: Copper to EN 13600
- Insulation sleeve: PA, halogen-free

### Surface

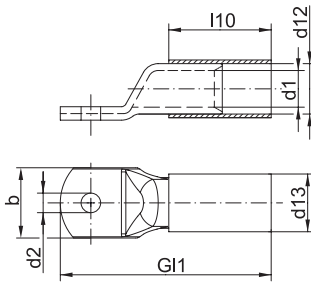
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 40
- Dimensions of tubular cable lugs can be found from page 14
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Also available as featured article with inspection hole, part number appendix „MS“



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Colour	Dimension mm					weight 100 pcs. ~kg Cu	weight 100 pcs. ~kg Total	Packing unit/ pcs
				d12	d13	d2	G1	l10			
10	M5	602R5	Red	7.0	9.0	5.5	35.5	17.0	0.50	0.548	25
	M6	602R6	Red	7.0	9.0	6.5	35.5	17.0	0.49	0.538	25
	M8	602R8	Red	7.0	9.0	8.5	42.0	17.0	0.58	0.628	25
	M10	602R10	Red	7.0	9.0	10.5	46.0	17.0	0.62	0.668	25
	M12	602R12	Red	7.0	9.0	13.0	49.0	17.0	0.64	0.688	25
16	M5	603R5	Blue	8.5	10.5	5.5	39.5	21.0	0.84	0.907	25
	M6	603R6	Blue	8.5	10.5	6.5	41.3	21.0	0.86	0.927	25
	M8	603R8	Blue	8.5	10.5	8.5	45.5	21.0	0.93	0.997	25
	M10	603R10	Blue	8.5	10.5	10.5	49.5	21.0	0.99	1.057	25
	M12	603R12	Blue	8.5	10.5	13.0	54.0	21.0	1.02	1.087	25
25	M5	604R5	Yellow	10.0	12.0	5.5	45.0	24.0	1.22	1.312	25
	M6	604R6	Yellow	10.0	12.0	6.5	46.5	24.0	1.20	1.292	25
	M8	604R8	Yellow	10.0	12.0	8.5	51.0	24.0	1.31	1.402	25
	M10	604R10	Yellow	10.0	12.0	10.5	55.0	24.0	1.57	1.662	25
	M12	604R12	Yellow	10.0	12.0	13.0	57.0	24.0	1.39	1.482	25
35	M14	604R14	Yellow	10.0	12.0	15.0	61.5	24.0	1.49	1.582	25
	M6	605R6	Red	12.0	14.5	6.5	49.5	27.0	1.85	2.010	25
	M8	605R8	Red	12.0	14.5	8.5	54.0	27.0	2.00	2.160	25
	M10	605R10	Red	12.0	14.5	10.5	59.0	27.0	2.13	2.290	25
	M12	605R12	Red	12.0	14.5	13.0	61.0	27.0	2.12	2.280	25
35	M14	605R14	Red	12.0	14.5	15.0	64.5	27.0	2.18	2.340	25
	M16	605R16	Red	12.0	14.5	17.0	68.0	27.0	2.24	2.400	25

See next page



**Insulated tubular cable lugs, Cu, standard type**

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Colour	Dimension mm					Gewicht 100 St. ~kg Cu	Gewicht 100 St. ~kg Ges.	Packing unit/ pcs
				d12	d13	d2	Gl1	l10			
50	M6	<b>606R6</b>	■	14.0	16.5	6.5	59.0	32.0	3.00	3.220	25
	M8	<b>606R8</b>	■	14.0	16.5	8.5	59.0	32.0	2.93	3.150	25
	M10	<b>606R10</b>	■	14.0	16.5	10.5	63.0	32.0	3.08	3.300	25
	M12	<b>606R12</b>	■	14.0	16.5	13.0	68.0	32.0	3.23	3.450	25
	M14	<b>606R14</b>	■	14.0	16.5	15.0	71.5	32.0	3.32	3.540	25
	M16	<b>606R16</b>	■	14.0	16.5	17.0	77.0	32.0	3.38	3.600	25
	M20	<b>606R20</b>	■	14.0	16.5	21.0	83.5	32.0	3.46	3.680	25
70	M6	<b>607R6</b>	■	16.4	18.9	6.5	65.5	33.5	4.49	4.760	25
	M8	<b>607R8</b>	■	16.4	18.9	8.5	65.5	33.5	4.38	4.650	25
	M10	<b>607R10</b>	■	16.4	18.9	10.5	66.5	33.5	4.54	4.810	25
	M12	<b>607R12</b>	■	16.4	18.9	13.0	70.5	33.5	4.63	4.900	25
	M14	<b>607R14</b>	■	16.4	18.9	15.0	73.5	33.5	4.76	5.030	25
	M16	<b>607R16</b>	■	16.4	18.9	17.0	78.5	33.5	4.24	4.510	25
	M20	<b>607R20</b>	■	16.4	18.9	21.0	84.5	33.5	5.09	5.360	25
95	M8	<b>608R8</b>	■	17.8	20.8	8.5	74.0	40.0	5.44	5.85	25
	M10	<b>608R10</b>	■	17.8	20.8	10.5	74.0	40.0	5.40	5.81	25
	M12	<b>608R12</b>	■	17.8	20.8	13.0	76.0	40.0	5.56	5.97	25
	M14	<b>608R14</b>	■	17.8	20.8	15.0	79.5	40.0	5.62	6.03	25
	M16	<b>608R16</b>	■	17.8	20.8	17.0	84.0	40.0	5.82	6.23	25
	M20	<b>608R20</b>	■	17.8	20.8	21.0	96.0	40.0	6.71	7.12	25
120	M8	<b>609R8</b>	■	19.3	22.3	8.5	80.5	41.5	6.72	7.18	10
	M10	<b>609R10</b>	■	19.3	22.3	10.5	80.5	41.5	6.57	7.03	10
	M12	<b>609R12</b>	■	19.3	22.3	13.0	80.5	41.5	6.38	6.84	10
	M16	<b>609R16</b>	■	19.3	22.3	17.0	85.5	41.5	6.51	6.97	10



## Insulated butt connectors, Cu, standard type



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ No additional insulation of the crimped connection required
- ▶ Is directly crimped with the insulation



### Characteristics

- With buttmarks for precise cable insertion
- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer
- Heat resistant to 105° C



### Material

- Connector: Copper (EN 13600)
- Insulation sleeve: PA, halogen-free

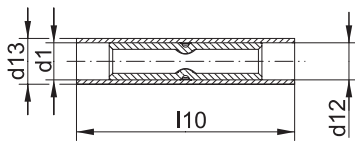


### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 40
- Dimensions of butt connectors can be found on page 21
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm				Gewicht 100 St. ~kg Cu	Gewicht 100 St. ~kg Ges.	Packing unit/pcs
			d1	d12	d13	l10			
10	622R	Red	4,5	7,0	9,0	42	0,72	0,84	25
16	623R	Blue	5,5	8,5	10,5	50	1,00	1,16	25
25	624R	Yellow	7,0	10,0	12,0	57	1,41	1,63	25
35	625R	Red	8,5	12,0	14,4	65	2,24	2,60	25
50	626R	Blue	10,0	14,0	16,4	72	3,36	3,81	25
70	627R	Yellow	12,0	16,4	19,0	80	4,87	5,46	25
95	628R	Red	13,5	17,8	20,8	87	5,91	6,74	25



## Tubular cable lugs, blue connection®, Cu



- ▶ For compacted multi-stranded round conductors to DIN EN 60228 Cl. 2
- ▶ Accurate assignment of crimping tool/crimping die through colour-coding system
- ▶ Fewer crimps due to max. crimping width
- ▶ Reduced costs due to compact dimensions

### Characteristics

- Rigid design thanks to special shaped radius
- Processing takes place without the use of additional sleeves
- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- Copper (EN13600)

### Surface

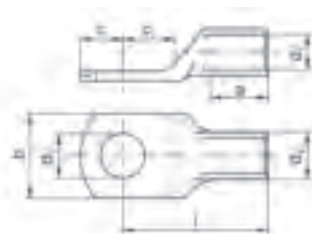
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 41

### Additional information

- 10-300 mm<sup>2</sup> IEC-tested



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
6	M5	<b>6B5</b>	3.20	9.0	10.50	5.30	5.00	5.00	6.50	20.50	0.24	50
	M6	<b>6B6</b>	3.20	9.0	11.00	6.40	5.00	6.00	8.00	22.00	0.26	50
	M8	<b>6B8</b>	3.20	9.0	12.50	8.40	5.00	8.00	10.00	24.00	0.29	50
	M10	<b>6B10</b>	3.20	9.00	14.00	10.50	5.00	10.00	11.50	25.50	0.30	50
10	M5	<b>10B5</b>	4.10	9.00	11.50	5.30	6.50	5.00	6.50	21.00	0.35	50
	M6	<b>10B6</b>	4.10	9.00	12.00	6.40	6.50	6.00	8.00	22.50	0.39	50
	M8	<b>10B8</b>	4.10	9.00	14.00	8.40	6.50	8.00	10.00	24.50	0.43	50
	M10	<b>10B10</b>	4.10	9.00	15.00	10.50	6.50	10.00	11.50	26.00	0.44	50
16	M6	<b>16B6</b>	5.50	10.0	13.50	6.40	7.70	6.00	8.00	25.00	0.61	50
	M8	<b>16B8</b>	5.50	10.0	15.00	8.40	7.70	8.00	10.00	27.00	0.65	50
	M10	<b>16B10</b>	5.50	10.00	16.50	10.50	7.70	10.00	11.50	28.00	0.69	50
	M12	<b>16B12</b>	5.50	10.00	18.50	13.00	7.70	12.00	13.00	29.50	0.72	50
25	M6	<b>25B6</b>	6.60	10.0	15.00	6.40	9.00	6.00	8.00	25.50	0.81	25
	M8	<b>25B8</b>	6.60	10.0	16.00	8.40	9.00	8.00	10.00	27.50	0.88	50
	M10	<b>25B10</b>	6.60	10.0	18.00	10.50	9.00	10.00	11.50	29.00	0.93	50
	M12	<b>25B12</b>	6.60	10.0	19.50	13.00	9.00	12.00	13.00	30.50	0.97	25
35	M8	<b>35B8</b>	7.70	11.0	18.00	8.40	10.60	8.00	10.00	29.50	1.34	50
	M10	<b>35B10</b>	7.70	11.0	19.50	10.50	10.60	10.00	11.50	31.00	1.42	50
	M12	<b>35B12</b>	7.70	11.0	21.00	13.00	10.60	12.00	13.00	32.50	1.48	25
50	M8	<b>50B8</b>	9.20	11.0	19.00	8.40	12.40	8.00	10.00	31.00	1.87	25
	M10	<b>50B10</b>	9.20	11.0	21.00	10.50	12.40	10.00	11.50	32.50	1.95	25
	M12	<b>50B12</b>	9.20	11.0	23.00	13.00	12.40	12.00	13.00	34.00	2.05	25
70	M8	<b>70B8</b>	11.00	21.0	22.00	8.40	14.60	8.00	10.00	41.50	3.17	25
	M10	<b>70B10</b>	11.00	21.0	24.00	10.50	14.60	10.00	11.50	43.00	3.33	25
	M12	<b>70B12</b>	11.00	21.0	25.00	13.00	14.60	12.00	13.00	44.50	3.46	25
95	M16	<b>70B16</b>	11.00	21.0	28.00	17.00	14.60	15.00	17.00	48.50	3.73	10
	M10	<b>95B10</b>	13.00	21.0	26.00	10.50	17.00	10.00	11.50	44.50	4.55	25
	M12	<b>95B12</b>	13.00	21.0	28.00	13.00	17.00	12.00	13.00	46.00	4.75	25
	M16	<b>95B16</b>	13.00	21.0	30.00	17.00	17.00	15.00	17.00	50.00	5.01	10

See next page

## Rohrkabelschuhe, blue connection®, Cu

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
120	M10	<b>120B10</b>	14.50	22.0	28.00	10.50	19.00	10.00	11.50	47.00	6.02	25
	M12	<b>120B12</b>	14.50	22.0	29.50	13.00	19.00	12.00	13.00	48.50	6.26	25
	M16	<b>120B16</b>	14.50	22.0	32.00	17.00	19.00	15.00	17.00	52.50	6.73	10
150	M10	<b>150B10</b>	16.20	22.0	30.00	10.50	21.00	10.00	11.50	48.50	7.41	10
	M12	<b>150B12</b>	16.20	22.0	32.00	13.00	21.00	12.00	13.00	50.00	7.71	10
185	M10	<b>185B10</b>	18.00	24.0	33.00	10.50	23.00	10.00	11.50	52.00	9.21	10
	M12	<b>185B12</b>	18.00	24.0	33.00	13.00	23.00	12.00	13.00	53.50	9.43	10
	M16	<b>185B16</b>	18.00	24.0	36.00	17.00	23.00	15.00	17.00	57.70	10.14	10
240	M12	<b>240B12</b>	20.60	24.0	38.00	13.00	26.00	12.00	13.00	56.00	12.46	10
	M16	<b>240B16</b>	20.60	24.0	38.00	17.00	26.00	15.00	17.00	60.00	13.24	10
300	M12	<b>300B12</b>	23.10	33.0	41.00	13.00	28.00	12.00	13.00	67.00	14.39	5
	M16	<b>300B16</b>	23.10	33.0	41.00	17.00	28.00	15.00	17.00	71.00	15.27	5

## Butt connectors, blue connection®, Cu



- ▶ For compacted multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ Accurate assignment of crimping tool/crimping die through colour-coding system
- ▶ Fewer crimps due to max. crimping width
- ▶ Reduced costs due to compact dimensions

### Characteristics

- Processing takes place without the use of additional sleeves
- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 41

### Additional information

- 10-300 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
6	<b>6B</b>	3.20	5.00	25.00	0.255	50
10	<b>10B</b>	4.10	6.50	25.00	0.360	50
16	<b>16B</b>	5.50	7.70	27.00	0.543	50
25	<b>25B</b>	6.60	9.00	27.00	0.699	50
35	<b>35B</b>	7.70	10.60	28.00	1.026	50
50	<b>50B</b>	9.20	12.40	28.00	1.334	25
70	<b>70B</b>	11.00	14.60	48.00	3.065	25
95	<b>95B</b>	13.00	17.00	48.00	3.987	25
120	<b>120B</b>	14.50	19.00	50.00	5.157	25
150	<b>150B</b>	16.20	21.00	52.00	6.379	10
185	<b>185B</b>	18.00	23.00	56.00	7.889	10
240	<b>240B</b>	20.60	26.00	58.00	10.000	10
300	<b>300B</b>	23.10	28.00	76.00	13.079	5





## Tubular cable lugs, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to DIN EN 60228 Cl. 1
- ▶ For pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors

### Characteristics

- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

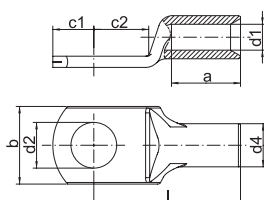
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

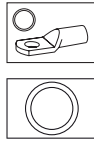
### Technical instructions

- Tool: see page 44



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
6	M5	<b>SR65</b>	3.0	8	9.0	5.3	5	4.75	6.0	17.0	0.213	25
	M6	<b>SR66</b>	3.0	8	10.0	6.5	5	6.50	6.5	19.0	0.220	25
10	M6	<b>SR106</b>	4.0	9	10.0	6.5	6	7.00	6.5	19.0	0.300	25
	M8	<b>SR108</b>	4.0	9	14.0	8.5	6	8.50	9.5	22.0	0.320	25
16	M6	<b>SR166</b>	5.0	12	12.5	6.5	8	6.50	7.0	23.5	0.800	25
	M8	<b>SR168</b>	5.0	12	15.0	8.5	8	9.00	9.0	26.0	0.900	25
25	M6	<b>SR256</b>	6.2	15	14.0	6.5	10	7.50	7.5	30.0	1.560	25
	M8	<b>SR258</b>	6.2	15	16.0	8.5	10	10.00	10.0	32.0	1.700	25
35	M6	<b>SR356</b>	7.0	15	14.0	6.5	10	7.50	7.5	30.0	1.200	25
	M8	<b>SR358</b>	7.0	15	16.0	8.5	10	10.00	10.0	32.0	1.310	25
	M10	<b>SR3510</b>	7.0	15	18.0	10.5	10	12.00	12.0	34.0	1.570	25
50	M6	<b>SR506</b>	8.5	17	17.0	6.5	12	7.50	7.5	32.0	1.850	25
	M8	<b>SR508</b>	8.5	17	17.0	8.5	12	10.00	10.0	34.0	2.000	25
	M10	<b>SR5010</b>	8.5	17	19.0	10.5	12	12.00	12.0	37.0	2.130	25

## Butt connectors, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to DIN EN 60228 Cl. 1
- ▶ Also pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors

### Characteristics

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Material

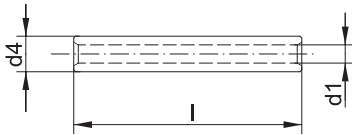
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

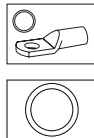
### Technical instructions

- Tool: see page 44



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
1.5-2.5	<b>SV1525</b>	1.9	3.9	25	0.210	100
4	<b>SV4</b>	2.4	4.4	25	0.240	100
6	<b>SV6</b>	3.0	5.0	25	0.275	100
10	<b>SV10</b>	4.0	6.0	25	0.350	100
16	<b>SV16</b>	5.0	8.0	35	0.960	100
25	<b>SV25</b>	6.2	10.0	40	1.700	50
35	<b>SV35</b>	7.0	10.0	40	1.420	50
50	<b>SV50</b>	8.5	12.0	70	3.550	50

## T-connectors, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to DIN EN 60228 Cl. 1
- ▶ Also pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors
- ▶ Special version for cable tap conductors

### Characteristics

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Material

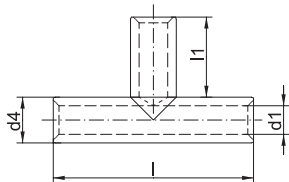
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

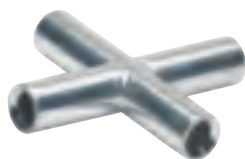
- Tool: see page 44



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Draht-Ø mm	Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1			
1.5-2.5	<b>STV1525</b>	1.9	3.9	30	12	1.38/1.78	0.34	50
4	<b>STV4</b>	2.4	4.4	30	12	2.25	0.40	50
6	<b>STV6</b>	3.0	5.0	30	12	2.75	0.48	50
10	<b>STV10</b>	4.0	6.0	35	14	3.55	0.72	50
16	<b>STV16</b>	5.0	8.0	35	14	4.5	1.40	50
25	<b>STV25</b>	6.2	10.0	50	21	5.65	3.20	25
35	<b>STV35</b>	7.0	10.0	55	23	6.7	2.95	25
50	<b>STV50</b>	8.5	12.0	76	32	8	5.60	25



## Cross-connectors, Cu, solid conductor type



- ▶ For single-stranded round conductors, e.g. to DIN EN 60228 Cl. 1
- ▶ Also pre-rounded sector shaped conductors
- ▶ Safe and secure connecting of solid conductors
- ▶ Special version for double cable tap conductors

### Characteristics

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Material

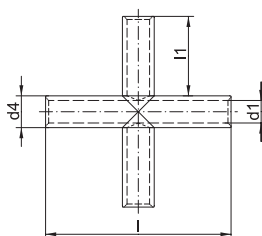
- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 44



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Draht-Ø mm	Weight/100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l	l1			
1.5-2.5	<b>SKV1525</b>	1.9	3.9	30	12	1.38/1.78	0.47	25
4	<b>SKV4</b>	2.4	4.4	30	12	2.25	0.56	25
6	<b>SKV6</b>	3.0	5.0	30	12	2.75	0.67	25
10	<b>SKV10</b>	4.0	6.0	35	14	3.55	0.92	25
16	<b>SKV16</b>	5.0	8.0	35	14	4.5	1.86	25
25	<b>SKV25</b>	6.2	10.0	50	21	5.65	4.20	15
35	<b>SKV35</b>	7.0	10.0	55	23	6.7	3.80	15
50	<b>SKV50</b>	8.5	12.0	76	32	8	7.35	15



## Tubular cable lugs, Cu, F-series



- ▶ For fine and superfine stranded round conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Pipe dimension adjusted for fine and superfine stranded conductors
- ▶ Special wide opening for the easy entry of fine conductors

### Characteristics

- Annealed material optimises material and crimping properties
- To DIN EN 61373 class 1B vibration-tested
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Reliable assignment owed to item designation on the cable lug

### Material

- Copper (EN13600)

### Surface

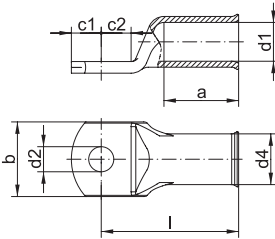
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 42

### Additional information

- Also available as featured article with inspection hole, part number appendix „MS“
- 10 - 240 mm<sup>2</sup> UL-tested



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
10	M5	<b>702F5</b>	5.5	14	12	5.3	8.0	6.25	7.5	27	0.72	100
	M6	<b>702F6</b>	5.5	14	12	6.5	8.0	6.25	7.5	27	0.71	100
	M8	<b>702F8</b>	5.5	14	16	8.5	8.0	8.50	9.5	29	0.77	100
	M10	<b>702F10</b>	5.5	14	16	10.5	8.0	10.50	11.5	31	0.82	100
	M12	<b>702F12</b>	5.5	14	19	13.0	8.0	12.00	13.0	32	0.82	100
16	M5	<b>703F5</b>	6.6	15	13	5.3	9.5	6.25	7.5	30	1.10	100
	M6	<b>703F6</b>	6.6	15	13	6.5	9.5	6.25	7.5	30	1.07	100
	M8	<b>703F8</b>	6.6	15	16	8.5	9.5	10.00	10.0	32	1.21	100
	M10	<b>703F10</b>	6.6	15	17	10.5	9.5	12.00	12.0	34	1.28	100
	M12	<b>703F12</b>	6.6	15	19	13.0	9.5	13.00	13.0	35	1.28	100
25	M5	<b>704F5</b>	7.9	17	15	5.3	11.0	7.50	7.5	32	1.52	25
	M6	<b>704F6</b>	7.9	17	15	6.5	11.0	7.50	7.5	32	1.50	100
	M8	<b>704F8</b>	7.9	17	17	8.5	11.0	10.00	10.0	34	1.61	100
	M10	<b>704F10</b>	7.9	17	17	10.5	11.0	12.00	12.0	37	1.71	100
	M12	<b>704F12</b>	7.9	17	19	13.0	11.0	13.00	13.0	38	1.74	25
35	M6	<b>705F6</b>	9.2	19	17	6.5	12.5	7.50	7.5	35	1.91	100
	M8	<b>705F8</b>	9.2	19	18	8.5	12.5	10.00	10.0	37	2.08	100
	M10	<b>705F10</b>	9.2	19	18	10.5	12.5	12.00	12.0	40	2.24	100
	M12	<b>705F12</b>	9.2	19	19	13.0	12.5	13.00	13.0	41	2.22	25
	M14	<b>705F14</b>	9.2	19	21	15.0	12.5	14.50	14.5	43	2.41	25
50	M6	<b>706F6</b>	11.0	21	21	6.5	15.0	10.00	10.0	41	3.54	25
	M8	<b>706F8</b>	11.0	21	21	8.5	15.0	10.00	10.0	41	3.44	50
	M10	<b>706F10</b>	11.0	21	21	10.5	15.0	12.00	12.0	43	3.64	50
	M12	<b>706F12</b>	11.0	21	21	13.0	15.0	13.00	13.0	46	3.73	50
	M14	<b>706F14</b>	11.0	21	23	15.0	15.0	14.50	14.5	48	3.89	25
	M16	<b>706F16</b>	11.0	21	28	17.0	15.0	16.00	16.0	50	4.02	25

See next page





**Tubular cable lugs, Cu, F-series**

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	c2	l		
70	M8	<b>707F8</b>	13.0	25	25	8.5	17.0	10.00	10.0	46	4.46	50
	M10	<b>707F10</b>	13.0	25	25	10.5	17.0	12.00	12.0	48	4.62	50
	M12	<b>707F12</b>	13.0	25	25	13.0	17.0	13.00	13.0	50	4.71	50
	M14	<b>707F14</b>	13.0	25	25	15.0	17.0	14.50	14.5	52	4.87	25
	M16	<b>707F16</b>	13.0	25	25	17.0	17.0	16.00	16.0	54	5.85	25
95	M8	<b>708F8</b>	14.5	26	28	8.5	19.0	12.00	12.0	52	6.35	25
	M10	<b>708F10</b>	14.5	26	28	10.5	19.0	12.00	12.0	52	6.23	50
	M12	<b>708F12</b>	14.5	26	28	13.0	19.0	13.00	13.0	53	6.31	50
	M14	<b>708F14</b>	14.5	26	28	15.0	19.0	14.50	14.5	55	6.46	25
	M16	<b>708F16</b>	14.5	26	28	17.0	19.0	16.00	16.0	56	6.56	50
120	M10	<b>709F10</b>	16.2	30	30	10.5	21.0	14.00	14.0	57	8.31	50
	M12	<b>709F12</b>	16.2	30	30	13.0	21.0	15.00	15.0	58	8.39	50
	M14	<b>709F14</b>	16.2	30	30	15.0	21.0	15.00	15.0	58	8.06	25
	M16	<b>709F16</b>	16.2	30	30	17.0	21.0	16.00	16.0	59	8.17	50
	M20	<b>709F20</b>	16.2	30	36	21.0	21.0	22.00	22.0	66	9.56	25
150	M10	<b>710F10</b>	18.0	32	34	10.5	23.0	15.00	16.0	64	10.91	10
	M12	<b>710F12</b>	18.0	32	34	13.0	23.0	16.00	17.0	65	10.89	25
	M14	<b>710F14</b>	18.0	32	34	15.0	23.0	18.00	19.0	67	11.42	10
	M16	<b>710F16</b>	18.0	32	34	17.0	23.0	19.00	20.0	68	11.30	10
	M20	<b>710F20</b>	18.0	32	40	21.0	23.0	21.00	22.0	70	11.36	10
185	M12	<b>711F12</b>	20.6	35	39	13.0	26.0	21.50	19.0	72	15.40	10
	M14	<b>711F14</b>	20.6	35	39	15.0	26.0	21.50	19.0	72	15.20	10
	M16	<b>711F16</b>	20.6	35	39	17.0	26.0	21.50	19.0	72	15.00	25
	M20	<b>711F20</b>	20.6	35	39	21.0	26.0	21.50	19.0	72	14.20	10
240	M10	<b>712F10</b>	23.1	44	41	10.5	28.0	16.00	17.0	80	16.50	10
	M12	<b>712F12</b>	23.1	44	41	13.0	28.0	16.00	17.0	80	16.30	10
	M14	<b>712F14</b>	23.1	44	41	15.0	28.0	19.00	20.0	83	16.80	10
	M16	<b>712F16</b>	23.1	44	41	17.0	28.0	19.00	20.0	83	16.71	25
	M20	<b>712F20</b>	23.1	44	41	21.0	28.0	21.00	22.0	85	17.12	10
300	M12	<b>713F12</b>	26.1	44	47	13.0	32.0	19.00	22.0	96	25.60	5
	M14	<b>713F14</b>	26.1	44	47	15.0	32.0	19.00	22.0	96	26.56	5
	M16	<b>713F16</b>	26.1	44	47	17.0	32.0	19.00	22.0	96	25.60	5
	M20	<b>713F20</b>	26.1	44	47	21.0	32.0	22.00	22.0	96	26.24	5



## Angled tubular cable lugs, Cu, 90° angled, F-series



- ▶ For fine and superfine stranded round conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Tube dimension adjusted for fine and superfine stranded conductors
- ▶ Special wide opening for the easy entry of fine conductors
- ▶ Flat contact surface by special angle pressing technology

### Characteristics

- Annealed material optimises material and crimping properties
- Tube dimensions suitable for fine stranded conductors
- Flat contact surface and internal chamfer for simple cable insertion

### Material

- Copper (EN13600)

### Surface

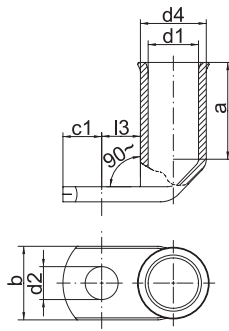
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 42

### Additional information

- Also available as featured article 45° angled, part number appendix „45“
- Also available as featured article with inspection hole, part number appendix „MS“
- 90° angled version: 10 - 240 mm<sup>2</sup> UL-tested



Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	a	b	d2	d4	c1	l3		
10	M5	742F5	5.5	14	12	5.3	8.0	6.25	7.5	0.80	50
	M6	742F6	5.5	14	12	6.5	8.0	6.25	7.5	0.78	50
	M8	742F8	5.5	14	16	8.5	8.0	9.00	9.5	0.84	50
	M10	742F10	5.5	14	16	10.5	8.0	10.50	12.0	0.88	50
	M12	742F12	5.5	14	19	13.0	8.0	12.00	13.0	0.90	50
16	M5	743F5	6.6	15	13	5.3	9.5	6.25	7.5	1.12	50
	M6	743F6	6.6	15	13	6.5	9.5	6.25	7.5	1.12	50
	M8	743F8	6.6	15	16	8.5	9.5	10.00	10.0	1.30	50
	M10	743F10	6.6	15	17	10.5	9.5	12.00	12.0	1.38	50
	M12	743F12	6.6	15	19	13.0	9.5	13.00	13.0	1.34	50
25	M5	744F5	7.9	17	15	5.3	11.0	7.50	7.5	1.52	25
	M6	744F6	7.9	17	15	6.5	11.0	7.50	7.5	1.54	25
	M8	744F8	7.9	17	17	8.5	11.0	10.00	10.0	1.80	25
	M10	744F10	7.9	17	17	10.5	11.0	12.00	12.0	1.79	25
	M12	744F12	7.9	17	19	13.0	11.0	13.00	13.0	1.76	25
35	M6	745F6	9.2	19	17	6.5	12.5	7.50	7.5	2.02	25
	M8	745F8	9.2	19	18	8.5	12.5	10.00	10.0	2.18	25
	M10	745F10	9.2	19	18	10.5	12.5	12.00	12.0	2.30	25
	M12	745F12	9.2	19	19	13.0	12.5	13.00	13.0	2.26	25
	M14	745F14	9.2	19	21	15.0	12.5	14.50	14.5	2.65	25
50	M6	746F6	11.0	21	21	6.5	15.0	10.00	10.0	3.75	25
	M8	746F8	11.0	21	21	8.5	15.0	10.00	10.0	3.57	25
	M10	746F10	11.0	21	21	10.5	15.0	12.00	12.0	3.83	25
	M12	746F12	11.0	21	21	13.0	15.0	13.00	13.0	3.74	25
	M14	746F14	11.0	21	23	15.0	15.0	14.50	14.5	4.20	25
	M16	746F16	11.0	21	28	17.0	15.0	16.00	16.0	4.35	25

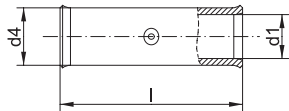
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### Angled tubular cable lugs, Cu, 90° angled, F-series

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm						Weight/ 100 pcs. ~ kg	Packing unit/pcs	
			d1	a	b	d2	d4	c1			l3
70	M8	<b>747F8</b>	13.0	25	25	8.5	17.0	10.00	10.0	4.83	25
	M10	<b>747F10</b>	13.0	25	25	11.0	17.0	12.00	12.0	5.18	25
	M12	<b>747F12</b>	13.0	25	25	13.0	17.0	13.00	13.0	5.16	25
	M14	<b>747F14</b>	13.0	25	25	15.0	17.0	14.50	14.5	5.38	25
	M16	<b>747F16</b>	13.0	25	25	17.0	17.0	16.00	16.0	6.50	25
95	M8	<b>748F8</b>	14.5	26	28	8.5	19.0	12.00	12.0	6.66	25
	M10	<b>748F10</b>	14.5	26	28	11.0	19.0	12.00	12.0	6.04	25
	M12	<b>748F12</b>	14.5	26	28	13.0	19.0	13.00	13.0	6.58	25
	M14	<b>748F14</b>	14.5	26	28	15.0	19.0	14.50	14.5	7.24	25
	M16	<b>748F16</b>	14.5	26	28	17.0	19.0	16.00	16.0	7.34	25
120	M10	<b>749F10</b>	16.2	30	30	11.0	21.0	14.00	14.0	8.76	10
	M12	<b>749F12</b>	16.2	30	30	13.0	21.0	15.00	15.0	8.76	10
	M14	<b>749F14</b>	16.2	30	30	15.0	21.0	15.00	15.0	9.15	10
	M16	<b>749F16</b>	16.2	30	30	17.0	21.0	16.00	16.0	8.54	10
	M20	<b>749F20</b>	16.2	30	36	21.0	21.0	22.00	22.0	9.60	10
150	M10	<b>750F10</b>	18.0	32	34	11.0	23.0	15.00	16.0	11.54	10
	M12	<b>750F12</b>	18.0	32	34	13.0	23.0	16.00	18.0	11.58	10
	M14	<b>750F14</b>	18.0	32	34	15.0	23.0	18.00	19.0	11.90	10
	M16	<b>750F16</b>	18.0	32	34	17.0	23.0	19.00	20.0	11.80	10
	M20	<b>750F20</b>	18.0	32	40	21.0	23.0	21.00	22.0	12.00	10
185	M12	<b>751F12</b>	20.6	35	39	13.0	26.0	21.50	19.0	16.36	10
	M14	<b>751F14</b>	20.6	35	39	15.0	26.0	21.50	19.0	16.20	10
	M16	<b>751F16</b>	20.6	35	39	17.0	26.0	21.50	19.0	15.36	10
	M20	<b>751F20</b>	20.6	35	39	21.0	26.0	21.50	19.0	15.80	10
240	M16	<b>752F16</b>	23.1	44	41	17.0	28.0	19.00	20.0	17.80	5

## Butt connectors, Cu, F-series



- ▶ For fine and superfine stranded round conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Pipe dimension adjusted for fine and superfine stranded conductors
- ▶ Special wide opening for the easy entry of fine conductors

### Characteristics

- Simple and safe processing due to butt mark
- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

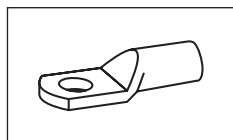
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 42

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
10	<b>722F</b>	5.5	8.0	38	0.90	100
16	<b>723F</b>	6.6	9.5	38	1.25	100
25	<b>724F</b>	7.9	11.0	38	1.56	50
35	<b>725F</b>	9.2	12.5	45	2.19	50
50	<b>726F</b>	11.0	15.0	45	3.37	50
70	<b>727F</b>	13.0	17.0	54	4.65	50
95	<b>728F</b>	14.5	19.0	56	6.05	25
120	<b>729F</b>	16.2	21.0	60	7.58	25
150	<b>730F</b>	18.0	23.0	68	9.83	10
185	<b>731F</b>	20.6	26.0	75	13.30	10



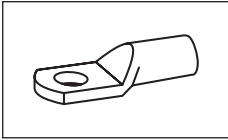


### Tool application chart

**Tubular cable lugs, butt connectors, parallel connectors and T-connectors „standard type“ and tubular cable lugs for switchgear connections made from Cu**  
Part 1 of 2





























Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0.75 - 16	K2		229		
	1 - 4	K511		239		
	6 - 50	K5		231		
		K05		235		
	6 + 10	K512		239		
	10 - 25	K04		234		
	10 - 120	K06		236		
	16 - 95	K95		230		
		TK95		231		
	25 - 150	K09		238		
	50 - 120	K6		232		
	120 - 240	K7		233		
	185 - 400	K07		232		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	0.75 - 2.5	KP1	+KP232	240		
		KP1L	+KP232	240		
	0.75 - 10	K50		244	326	
		EK50ML		254	326	
	4 - 10	KP1	+KP242	240		
		KP1L	+KP242	240		
	6 - 150	K354		246	328	
	6 - 185	K18		248	337	
	6 - 300	K22		250	341	
	Hand hydraulic crimping tools	6 - 185	HK6018		292	337
HK60UNV			+UA18	473	337	
6 - 300		HK6022		294	341	
		HK60UNV	+UA22	473	341	
10 - 240		HK60VP		296		
16 - 300		HK60VPFT		297		
16 - 400		HK12030		298	347	
		HK12042		300	347	
		HK120U		302	347	
Battery powered crimping tools		0.75 - 10	EK1550ML		258	326
	6 - 150	EK354ML		262	328	
		EK354		266	328	
	6 - 185	EK5018		270	337	
		EK60UNV	+UA18	476	337	
		EKM60UNV	+UA18	475	337	
	6 - 240	EK505		268	333	

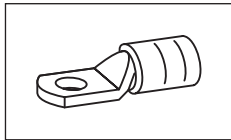
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## Tool application chart

**Tubular cable lugs, butt connectors, parallel connectors and T-connectors „standard type“ and tubular cable lugs for switchgear connections made from Cu**  
Part 2 of 2

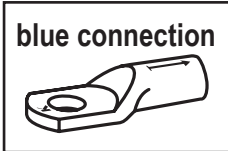
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Battery powered crimping tools	6 - 300	EK6022		274	341	
		EKM6022		272	341	
		EK60UNV	+UA22	476	341	
		EKM60UNV	+UA22	475	341	
	10 - 240	EK60VP		276		
		EKM60ID		278		
	16 - 300	EK60VPFT		277		
	16 - 400	EK12032		280	347	
		EK12042		282	347	
		EK120U		284	347	
		EK135FT	+UA12T	286	347	
		EK120UNV	+UA15T	477	347	
	35 - 500	EK120ID		279		
	500 - 630	EK135FT		286	352	
	Hydraulic crimping systems	6 - 185	THK18		306	337
6 - 300		THK22		308	341	
16 - 400		HK122EL380		322	347	
		HK252		320	353	
	HK252EL380		322	353		
Hydraulic crimping heads	6 - 185	PK18		306	337	
		PK60UNV	+UA18	474	337	
	6 - 300	PK22		308	341	
		PK60UNV	+UA22	474	341	
	10 - 240	PK60VP		310		
		PK60ID		311		
	16 - 300	PK60VPFT		310		
	16 - 400	PK12042		312	347	
		PK120U		314	347	
		PK252		316	353	



### Tool application chart

#### Insulated tubular cable lugs and butt connectors „standard type“

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	10 - 70	K354		246	328	○
	10 - 95	K18		248	337	○
	10 - 150	K22		250	341	○
Hand hydraulic crimping tools	10 - 95	HK6018		292	337	○
		HK60UNV	+UA18	473	337	○
	10 - 150	HK6022		294	341	○
		HK60UNV	+UA22	473	341	○
		HK12030		298	347	○
		HK12042		300	347	○
		HK120U		302	347	○
Battery powered crimping tools	10 - 70	EK354ML		262	328	○
		EK354		266	328	○
	10 - 95	EK5018		270	337	○
		EK505		268	333	○
		EK60UNV	+UA18	476	337	○
		EKM60UNV	+UA18	475	337	○
		10 - 150	EK6022		274	341
		EKM6022		272	341	○
		EK60UNV	+UA22	476	341	○
		EKM60UNV	+UA22	475	341	○
		EK12032		280	347	○
		EK12042		282	347	○
		EK120U		284	347	○
		EK135FT	+UA15T	286	347	○
		EK120UNV	+UA12T	477	347	○
Hydraulic crimping systems	10 - 95	THK18		306	337	○
	10 - 150	THK22		308	341	○
		HK122EL380		322	347	○
		HK252EL380		323	353	○
		HK252		320	353	○
Hydraulic crimping heads	10 - 95	PK18		306	337	○
		PK60UNV	+UA18	474	337	○
	10 - 150	PK22		308	341	○
		PK60UNV	+UA22	474	341	○
		PK12042		312	347	○
		PK120U		314	347	○
	PK252		316	353	○	

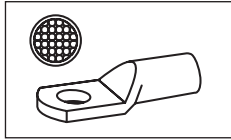


## Tool application chart

### Tubular cable lugs and butt connectors blue connection®

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	6 - 50	K05BC		234		⬡
	6 - 300	K22		250	342	⬡
	10 - 120	K06BC		236		⬡
	25 - 150	K09BC		237		⬡
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	6 - 150	K354		246	329	⬡
Hand hydraulic crimping tools	6 - 240	HK60UNV	+UA5	473	333	⬡
	6 - 300	HK6022		294	342	⬡
		HK60UNV	+UA22	473	342	⬡
Battery powered crimping tools	6 - 150	EK354ML		262	329	⬡
		EK354		266	329	⬡
	6 - 240	EK505		268	333	⬡
		EKM60UNV	+UA5	475	333	⬡
		EK60UNV	+UA5	475	333	⬡
	6 - 300	EK6022		274	342	⬡
		EKM6022		272	342	⬡
		EKM60UNV	+UA22	475	342	⬡
EK60UNV	+UA22	476	342	⬡		
Hydraulic crimping systems	6 - 300	THK22		308	342	⬡
	16 - 400	HK122EL380		322		⬡
Hydraulic crimping heads	6 - 300	PK22		308	342	⬡
		PK60UNV	+UA22	474	342	⬡





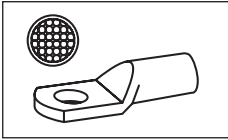
## Tool application chart

### Tubular cable lugs and butt connectors for fine stranded conductors

#### Part 1 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	6 - 50	K5		231		
	16 - 95	K95		230		
		TK95		231		
	50 - 120	K6		232		
	120 - 240	K7		233		
	185 - 400	K07		232		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	10 - 35	K354		246	329	
	10 - 50	K18		248	337	
	10 - 70	K22		250	342	
Hand hydraulic crimping tools	10 - 50	HK6018		292	337	
		HK60UNV	+UA18	473	337	
	10 - 70	HK6022		294	342	
		HK60UNV	+UA22	473	342	
	10 - 240	HK60VP		296		
	16 - 150	HK12030		298	348	
		HK12042		300	348	
		HK120U		302	348	
	16 - 300	HK60VPFT		297		
	Battery powered crimping tools	10 - 35	EK354ML		262	329
EK354				266	329	
10 - 50		EK505		268	334	
		EK5018		270	337	
		EK60UNV	+UA18	476	337	
10 - 70		EKM60UNV	+UA18	475	337	
		EK6022		274	342	
		EKM6022		272	342	
		EK60UNV	+UA22	476	342	
10 - 240		EKM60UNV	+UA22	475	342	
		EK60VP		276		
		EKM60ID		278		
16 - 150		EK12032		280	348	
		EK12042		282	348	
		EK120U		284	348	
		EK135FT	+UA15T	286	348	
	EK120UNV	+UA12T	322	348		
16 - 300	EK60VPFT		277			
35 - 500	EK120ID		279			
Hydraulic crimping systems	10 - 50	THK18		306	337	
	10 - 70	THK22		308	342	
	16 - 300	HK252		320	354	
		HK252EL380		323	354	











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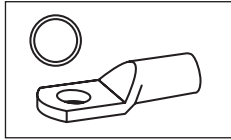


## Tool application chart

### Tubular cable lugs and butt connectors for fine stranded conductors

Part 2 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Hydraulic crimping heads	10 - 50	PK18		306	337	
		PK60UNV	+UA18	474	337	
	10 - 70	PK22		308	342	
		PK60UNV	+UA22	474	342	
	10 - 240	PK60VP		310		
		PK60ID		311		
	16 - 150	PK12042		312	348	
		PK120U		314	348	
	16 - 300	PK60VPFT		310		
		PK252		316	354	



## Tool application chart

### Tubular cable lugs and butt connectors for solid conductors

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0.75-16	K02		229		
	1.5-4	K93		228		
	6-10	K94		228		
	25-50*	K05		235		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	1.5-10	K50		244	326	
		EK50ML		254	326	
	1.5-16	K354		246	329	
		K18		248	338	
		K22		250	342	
Hand hydraulic crimping tools	1.5-16	HK6018		292	338	
		HK60UNV	+UA18	473	338	
		HK6022		294	342	
		HK60UNV	+UA22	473	342	
Battery powered crimping tools	1.5-10	EK1550ML		258	326	
		EK354ML		262	329	
	1.5-16	EK354		266	329	
		EK5018		270	338	
		EK60UNV	+UA18	476	338	
		EKM60UNV	+UA18	475	338	
		EK6022		274	342	
		EKM6022		272	342	
		EK60UNV	+UA22	476	342	
		EKM60UNV	+UA22	475	342	
		Hydraulic crimping systems	1.5-16	THK18		306
THK22				308	342	
Hydraulic crimping heads	1.5-16			PK18		306
		PK60UNV	+UA18	474	338	
		PK22		308	342	
		PK60UNV	+UA22	474	342	

\*For cross-sections 25 + 35 mm<sup>2</sup> use the die size 25 mm<sup>2</sup>.  
For cross-section 50 mm<sup>2</sup> use the die size 35 mm<sup>2</sup>.  
We recommend 2 crimps on each side







# THE RESISTANT – TUBULAR CABLE LUGS AND CONNECTORS, NICKEL OR STAINLESS STEEL

We also develop for use in tough conditions. Our tubular cable lugs and connectors made from nickel and stainless steel are a cut above: withstanding temperatures of up to 650 °C, our Klauke products have without doubt developed to meet the requirements of the chemical industry, the foodstuff sector and foodstuff industry. You can also rely on our high-quality products for special applications. We know what we are doing.



## In brief

- ▶ Tough to 650 °C
- ▶ Suitable for the chemical and foodstuff industry sectors, for instance
- ▶ Suitable even for aggressive environments, such as contact with salt water

**► When things get hot: Nickel cable lugs**

Nickel cable lugs are especially suitable for use in applications at high temperatures of up to 650 °C. Thanks to their high resilience they no longer need to be frequently replaced at connections exposed to heat.

- High-quality nickel
- Heat-resistant to 650 °C
- No constant replacement of the cable lug at hot locations



**► Safe in aggressive environments with stainless steel**

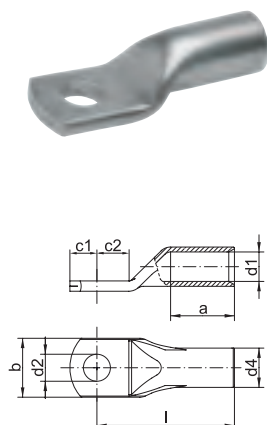
High-quality stainless steel ensures extra resilience, especially in aggressive environments. The resistance is retained.

- High-quality V2A and V4A stainless steel
- Acid resistant
- Can be used at temperatures to 400 °C
- V2A stainless steel for the chemical and foodstuff sectors and salt water applications
- V4A stainless steel in chlorinated environments such as swimming pools, for instance





## Tubular cable lugs, stainless steel



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Ideal for aggressive environmental conditions, acid and rust-resistant
- ▶ Heat resistant up to 400 °C

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- V2A (X5CrNi18-10)

### Technical instructions

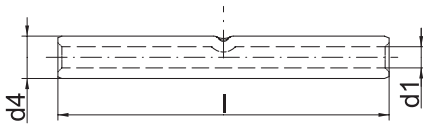
- Tool: see page 53

### Additional information

- Also available as featured article in stainless steel V4A (X5CrNiMo17-12-2)

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/ pcs
			d1	a	b	c1	c2	d2	d4	l		
0.5 - 1	M4	<b>79V4</b>	1.6	6	6.5	4.5	4.5	4.3	3.2	13	0.080	100
	M5	<b>79V5</b>	1.6	6	7.5	5	5.5	5.3	3.2	14	0.080	100
1.5 - 2.5	M4	<b>80V4</b>	3.0	8	9.0	5	5.5	4.3	5.0	17	0.260	100
	M5	<b>80V5</b>	3.0	8	9.0	5	6	5.5	5.0	17	0.190	100
	M6	<b>80V6</b>	3.0	8	9.5	6.5	6.5	6.5	5.0	19	0.215	100
4 - 6	M4	<b>81V4</b>	4.0	9	9.0	5	5.5	4.3	6.0	18	0.260	100
	M5	<b>81V5</b>	4.0	9	9.5	6	6	5.5	6.0	19	0.280	100
	M6	<b>81V6</b>	4.0	9	10.0	7	6.5	6.5	6.0	19	0.280	100
10	M5	<b>82V5</b>	5.0	10	12.5	6.5	7.5	5.5	8.0	22	0.710	100
	M6	<b>82V6</b>	5.0	10	12.5	6.5	7.5	6.5	8.0	22	0.780	100
	M8	<b>82V8</b>	5.0	10	15.0	9	10	8.5	8.0	25	0.780	100
16	M5	<b>83V5</b>	6.0	13	12.0	5.5	6.5	5.5	8.0	28	0.500	50
	M6	<b>83V6</b>	6.0	13	12.0	6	7.5	6.5	8.0	28	0.550	50
	M8	<b>83V8</b>	6.0	13	15.0	8.5	9.5	8.5	8.0	29	0.600	50
25	M6	<b>84V6</b>	7.0	15	14.0	7.5	7.5	6.5	10.0	30	1.210	50
	M8	<b>84V8</b>	7.0	15	16.0	9	10	8.5	10.0	32	1.850	50
35	M6	<b>85V6</b>	9.0	17	17.0	7.5	7.5	6.5	12.0	32	1.600	50
	M8	<b>85V8</b>	9.0	17	17.0	10	10	8.5	12.0	35	1.850	50
50	M6	<b>86V6</b>	10.0	19	20.0	10	10	6.5	14.0	37	2.800	50
	M8	<b>86V8</b>	10.0	19	20.0	10	10	8.5	14.0	37	2.600	50
	M10	<b>86V10</b>	10.0	19	20.0	12	12	10.5	14.0	39	2.800	50
	M12	<b>86V12</b>	10.0	19	20.0	13	13	13.0	14.0	43	2.960	50
70	M8	<b>87V8</b>	12.0	21	23.0	10	10	8.5	16.0	43	3.650	25
	M10	<b>87V10</b>	12.0	21	23.0	12	12	10.5	16.0	44	3.930	25
	M12	<b>87V12</b>	12.0	21	23.0	13	13	13.0	16.0	46	3.850	25
	M16	<b>87V16</b>	12.0	21	26.0	16	16	17.0	16.0	46	3.960	25
95	M8	<b>88V8</b>	14.0	25	26.0	12	12	8.5	18.0	48	4.650	25
	M10	<b>88V10</b>	14.0	25	26.0	12	12	10.5	18.0	48	5.610	25
	M12	<b>88V12</b>	14.0	25	26.0	13	13	13.0	18.0	49	5.540	25

## Butt connectors, stainless steel



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Ideal for aggressive environmental conditions, acid and rust-resistant
- ▶ Heat resistant up to 400 °C

### Characteristics

- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

### Material

- V2A (X5CrNi18-10)

### Technical instructions

- Tool: see page 53

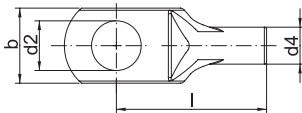
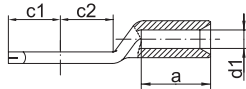
### Additional information

- Also available as featured article in stainless steel V4A (X5CrNiMo17-12-2)

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
0.5 - 1	<b>79R</b>	1.6	3.2	25	0.135	50
1.5 - 2.5	<b>80R</b>	3.0	5.0	25	0.250	50
4 - 6	<b>81R</b>	4.0	6.0	25	0.325	50
10	<b>82R</b>	5.0	8.0	25	0.360	50
16	<b>83R</b>	6.0	8.0	30	0.510	50
25	<b>84R</b>	7.0	10.0	35	1.100	25
35	<b>85R</b>	9.0	12.0	40	1.560	25
50	<b>86R</b>	10.0	14.0	45	2.670	25
70	<b>87R</b>	12.0	16.0	50	3.400	25
95	<b>88R</b>	14.0	18.0	55	4.300	25



## Tubular cable lug, Ni



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Suitable for high temperatures up to 650 °C

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- High-grade nickel

### Technical instructions

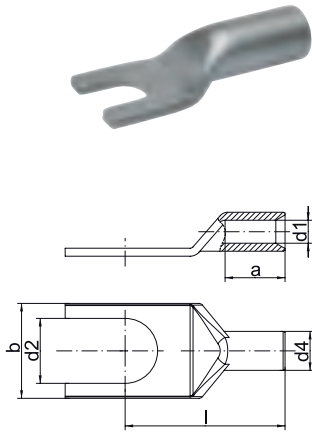
- Tool: see page 53

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm								Weight/ 100 pcs. ~ kg	Packing unit/ pcs	
			d1	a	b	d2	d4	c1	c2	l			
0.5 - 1	M3	<b>56N3</b>	1.6	4	6.5	3.2	3.2	3.5	4.5	13	0.080	100	
	M4	<b>56N4</b>	1.6	6	6.5	4.3	3.2	4.5	4.5	13	0.080	100	
	M5	<b>56N5</b>	1.6	6	7.5	5.3	3.2	5.0	5.5	14	0.080	100	
1.5 - 2.5	M3	<b>57N3</b>	2.3	6	7.0	3.2	3.9	3.5	5.0	13	0.105	100	
	M4	<b>57N4</b>	2.3	6	7.0	4.3	3.9	4.5	5.0	13	0.105	100	
	M5	<b>57N5</b>	2.3	6	7.5	5.3	3.9	5.0	5.5	14	0.105	100	
	M6	<b>57N6</b>	2.3	6	9.5	6.5	3.9	6.0	6.5	16	0.130	100	
	4 - 6	M4	<b>58N4</b>	3.6	9	9.5	4.3	5.6	4.5	5.0	18	0.275	100
		M5	<b>58N5</b>	3.6	9	9.5	5.3	5.6	5.0	5.5	19	0.275	100
M6		<b>58N6</b>	3.6	9	9.5	6.5	5.6	6.0	6.5	19	0.260	100	
10	M8	<b>58N8</b>	3.6	6	14	8.5	5.6	8.5	9.0	22	0.260	100	
	16	M5	<b>59N5</b>	4.5	10	12.0	5.5	6.5	5.5	6.5	21	0.340	100
		M6	<b>59N6</b>	4.5	10	12.0	6.5	6.5	6.5	7.5	22	0.360	100
M5		<b>60N5</b>	5.5	13	12.0	5.5	7.5	5.5	6.5	26	0.470	100	
25	M6	<b>60N6</b>	5.5	13	12.0	6.5	7.5	6.5	7.5	27	0.480	100	
	M8	<b>60N8</b>	5.5	13	13.5	8.5	7.5	8.5	9.5	29	0.560	100	
	M10	<b>60N10</b>	5.5	11	17	10.5	7.5	12.0	12.0	31	0.560	100	
35	M6	<b>61N6</b>	7.0	15	14.0	6.5	10.0	7.5	7.5	30	1.200	50	
	50	M8	<b>61N8</b>	7.0	15	16.0	8.5	10.0	10.0	10.0	32	1.320	50
		M10	<b>61N10</b>	7.0	13	17.0	10.5	10.0	12.0	12.0	34	1.320	50
70		M6	<b>62N6</b>	8.5	17	17.0	6.5	12.0	7.5	7.5	32	1.850	50
	95	M8	<b>62N8</b>	8.5	17	17.0	8.5	12.0	10.0	10.0	34	2.000	50
		M10	<b>62N10</b>	8.5	14.5	19.0	10.5	12.0	12.0	12.0	36	2.000	50
100		M8	<b>63N8</b>	10.0	19	20.0	8.5	14.0	10.0	10.0	37	2.900	50
	125	M10	<b>63N10</b>	10.0	19	20.0	10.5	14.0	12.0	12.0	39	3.100	50
		150	M10	<b>64N10</b>	12.0	21	23.0	10.5	16.5	12.0	12.0	44	4.600
175			M12	<b>64N12</b>	12.0	21	23.0	13.0	16.5	13.0	13.0	46	4.660
	200		M10	<b>65N10</b>	13.5	25	26.0	10.5	18.0	12.0	12.0	48	5.550
		225	M12	<b>65N12</b>	13.5	25	26.0	13.0	18.0	13.0	13.0	49	5.600





## Tubular cable lugs, Cu, fork type



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Suitable for high temperatures up to 650 °C
- ▶ Simple fork-type mounting

### Characteristics

- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- High-grade nickel

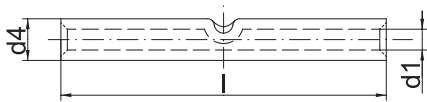
### Technical instructions

- Tool: see page 53

Nominal cross section mm <sup>2</sup>	Size of bolt dia.	Part No.	Dimension mm						Weight/ 100 pcs. ~ kg	Packing unit/ pcs
			d1	a	b	d2	d4	l		
0.5 - 1	M4	<b>56C4</b>	1.6	6	6.5	4.3	3.2	13	0.070	50
	M5	<b>56C5</b>	1.6	6	7.5	5.3	3.2	14	0.075	50
1.5 - 2.5	M4	<b>57C4</b>	2.3	6	7.0	4.3	3.9	13	0.095	50
	M5	<b>57C5</b>	2.3	6	7.5	5.3	3.9	14	0.095	50
	M6	<b>57C6</b>	2.3	6	9.5	6.5	3.9	16	0.110	50
4 - 6	M4	<b>58C4</b>	3.6	9	9.5	4.3	5.6	18	0.250	50
	M5	<b>58C5</b>	3.6	9	9.5	5.3	5.6	19	0.255	50
	M6	<b>58C6</b>	3.6	9	9.5	6.5	5.6	19	0.235	50
10	M5	<b>59C5</b>	4.5	10	12.0	5.5	6.5	21	0.320	50
	M6	<b>59C6</b>	4.5	10	12.0	6.5	6.5	22	0.340	50
16	M5	<b>60C5</b>	5.5	13	12.0	5.5	7.5	26	0.440	50
	M6	<b>60C6</b>	5.5	13	12.0	6.5	7.5	27	0.450	50
	M8	<b>60C8</b>	5.5	13	13.5	8.5	7.5	29	0.520	50



## Butt connectors, Ni



- ▶ For multi-stranded round conductors, e.g. to DIN EN 60228 Cl. 2
- ▶ For pre-rounded stranded sector shaped conductors
- ▶ Suitable for high temperatures to 650 °C

### Characteristics

- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

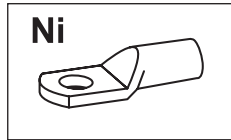
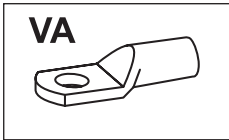
### Material

- High-grade nickel

### Technical instructions

- Tool: see page 53

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
		d1	d4	l		
0.5 - 1	<b>62R</b>	1.6	3.2	25	0.135	50
1.5 - 2.5	<b>63R</b>	2.3	3.9	25	0.170	50
4 - 6	<b>64R</b>	3.6	5.6	25	0.325	50
10	<b>65R</b>	4.5	6.5	25	0.360	50
16	<b>66R</b>	5.5	7.5	30	0.510	50



### Tool application chart

Tubular cable lugs and butt connectors made from stainless steel or nickel

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0.5 - 6	K25		230		
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	0.5 - 16	K354		246	329	
	10 - 50	K22		250	342	
Hand hydraulic crimping tools	10 - 50	HK6022		294	342	
		HK6022	+UA22	473	342	
	70 - 95	HK12030		298	348	
		HK12042		300	348	
		HK120U		302	348	
Battery powered crimping tools	0.5 - 16	EK354ML		262	329	
		EK354		266	342	
	10 - 50	EKM6022		272	342	
		EK6022		274	342	
		EK60UNV	+UA22	476	342	
		EKM60UNV	+UA22	475	342	
	70 - 95	EK12032		280	348	
		EK12042		282	348	
		EK120U		284	348	
		EK120UNV	+UA12T	477	348	
		EK135FT	+UA15T	286	348	
Hydraulic crimping systems	10 - 50	THK22		308	342	
Hydraulic crimping heads	10 - 50	PK22		308	342	
		PK60UNV	+UA22	474	342	
	70 - 95	PK12042		312	348	
		PK120U		314	348	

# CONFORMITY - COPPER COMPRESSION CABLE LUGS AND CONNECTORS TO DIN

Klauke products conform not only to its own standards. But also to DIN standards with strict standardised dimensions. Our compression cable lugs and connectors range to 1000 mm<sup>2</sup> nominal cross-section, with standardised designations and markings. We have the quality certified by the IEC test, including our special versions.



#### In brief

- ▶ Standardised sizes even for special versions
- ▶ Clear markings for standardised processing
- ▶ For all conductor classes to DIN EN 60228

▶ **Tested and certified for safety**

Our DIN cable lugs and connectors are strictly manufactured to standard. In addition, the test suggested in the standard has been passed with ease.

- Simple processing with DIN system
- Safety through standardised tests (IEC 61238-1)
- For all conductor classes to DIN EN 60228 and copper wires to DIN 46267-1



▶ **Every version standardised**

We offer cable lugs with tube dimension to DIN in numerous different forms and versions. If there happens to be no suitable connector for you, we will of course make you one to suit your needs.

- Flexible thanks to numerous versions
- Various surfaces available
- Many special versions based on the DIN standard available
- Manufactured to suit your particular requirements

▶ **Clear markings**

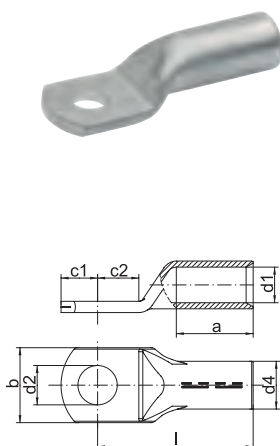
Where simplicity and safety are key: Every cable lug to DIN comes with the appropriate crimping instruction. Readily visible markings indicate the crimping location required to work in compliance with the standard. Code numbers on the dies and cable lugs show the correct crimp at a glance.







## Compression cable lugs to DIN, Cu



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ With code number for clear tool assignment
- ▶ To DIN 46235

### Characteristics

- Easy to process due to crimp markings
- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 69
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“

### Additional information

- Part Number appendix for bright version „BK“
- Item in barrier sealed design upon request
- 10 - 800 mm<sup>2</sup> IEC-tested
- \* = not standardised

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Hint	Code	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs
					a	b	d1	d2	d4	c1	c2	l		
6	M 5	<b>101R5</b>		5	10	8.5	3.8	5.3	5.5	6.5	7.5	24	0.24	100
	M 6	<b>101R6</b>		5	10	8.5	3.8	6.4	5.5	7.5	8.0	24	0.30	100
	M 8	<b>101R8</b>	*	5	10	13.0	3.8	8.4	5.5	10.0	10.0	24	0.34	100
10	M 5	<b>102R5</b>		6	10	9.0	4.5	5.3	6.0	7.0	8.5	27	0.37	100
	M 6	<b>102R6</b>		6	10	9.0	4.5	6.4	6.0	7.5	8.5	27	0.36	100
	M 8	<b>102R8</b>	*	6	10	13.0	4.5	8.4	6.0	10.0	10.0	27	0.38	100
16	M 6	<b>103R6</b>		8	20	13.0	5.5	6.4	8.5	7.5	8.0	36	1.19	100
	M 8	<b>103R8</b>		8	20	13.0	5.5	8.4	8.5	10.0	10.0	36	1.22	100
	M 10	<b>103R10</b>		8	20	17.0	5.5	10.5	8.5	12.0	12.0	36	1.30	100
	M 12	<b>103R12</b>	*	8	20	18.0	5.5	13.0	8.5	13.0	13.0	36	1.27	100
25	M 6	<b>104R6</b>		10	20	14.0	7.0	6.4	10.0	7.5	8.0	38	1.51	50
	M 8	<b>104R8</b>		10	20	16.0	7.0	8.4	10.0	10.0	10.0	38	1.54	50
	M 10	<b>104R10</b>		10	20	17.0	7.0	10.5	10.0	12.0	12.0	38	1.62	50
	M 12	<b>104R12</b>		10	20	19.0	7.0	13.0	10.0	13.0	13.0	38	1.66	25
35	M 6	<b>105R6</b>	*	12	20	17.0	8.2	6.4	12.5	7.5	8.0	42	2.77	50
	M 8	<b>105R8</b>		12	20	17.0	8.2	8.4	12.5	10.0	10.0	42	2.85	50
	M 10	<b>105R10</b>		12	20	19.0	8.2	10.5	12.5	12.0	12.0	42	2.84	50
	M 12	<b>105R12</b>		12	20	21.0	8.2	13.0	12.5	13.0	13.0	42	2.79	50
	M 14	<b>105R14</b>	*	12	20	21.0	8.2	15.0	12.5	14.5	14.5	42	2.70	25

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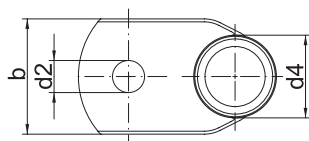
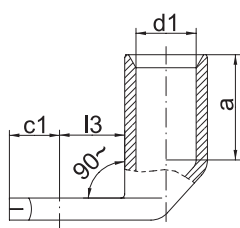


## Compression cable lugs to DIN, Cu

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Hint	Code	Dimension mm							Weight/100 pcs. ~ kg	Packing unit/pcs	
					a	b	d1	d2	d4	c1	c2			l
50	M 8	<b>106R8</b>		14	28	20.0	10.0	8.4	14.5	10.0	10.0	52	4.46	50
	M 10	<b>106R10</b>		14	28	22.0	10.0	10.5	14.5	12.0	12.0	52	4.48	50
	M 12	<b>106R12</b>		14	28	24.0	10.0	13.0	14.5	13.0	13.0	52	4.40	50
	M 14	<b>106R14</b>	*	14	28	24.0	10.0	15.0	14.5	14.5	14.5	52	4.30	25
	M 16	<b>106R16</b>		14	28	28.0	10.0	17.0	14.5	16.0	16.0	52	4.57	25
70	M 8	<b>107R8</b>		16	28	24.0	11.5	8.4	16.5	10.0	10.0	55	5.92	50
	M 10	<b>107R10</b>		16	28	24.0	11.5	10.5	16.5	12.0	12.0	55	6.02	50
	M 12	<b>107R12</b>		16	28	24.0	11.5	13.0	16.5	13.0	13.0	55	5.89	50
	M 14	<b>107R14</b>	*	16	28	24.0	11.5	15.0	16.5	14.5	14.5	55	5.80	25
	M 16	<b>107R16</b>		16	28	30.0	11.5	17.0	16.5	16.0	16.0	55	6.13	25
95	M 8	<b>108R8</b>	*	18	35	28.0	13.5	8.4	19.0	12.0	12.0	65	9.21	25
	M 10	<b>108R10</b>		18	35	28.0	13.5	10.5	19.0	12.0	12.0	65	8.97	50
	M 12	<b>108R12</b>		18	35	28.0	13.5	13.0	19.0	13.0	13.0	65	8.62	50
	M 14	<b>108R14</b>	*	18	35	28.0	13.5	15.0	19.0	14.5	14.5	65	8.78	25
	M 16	<b>108R16</b>		18	35	32.0	13.5	17.0	19.0	16.0	16.0	65	9.00	50
120	M 10	<b>109R10</b>		20	35	32.0	15.5	10.5	21.0	15.0	16.0	70	11.40	50
	M 12	<b>109R12</b>		20	35	32.0	15.5	13.0	21.0	16.0	17.0	70	11.31	50
	M 14	<b>109R14</b>	*	20	35	32.0	15.5	15.0	21.0	18.0	19.0	70	11.45	25
	M 16	<b>109R16</b>		20	35	32.0	15.5	17.0	21.0	19.0	20.0	70	11.24	50
	M 20	<b>109R20</b>		20	35	38.0	15.5	21.0	21.0	21.0	22.0	70	11.03	25
150	M 10	<b>110R10</b>		22	35	34.0	17.0	10.5	23.5	15.0	16.0	78	16.38	10
	M 12	<b>110R12</b>		22	35	34.0	17.0	13.0	23.5	16.0	17.0	78	16.29	25
	M 14	<b>110R14</b>	*	22	35	34.0	17.0	15.0	23.5	19.0	20.0	78	16.38	10
	M 16	<b>110R16</b>		22	35	34.0	17.0	17.0	23.5	19.0	20.0	78	16.17	10
	M 20	<b>110R20</b>		22	35	40.0	17.0	21.0	23.5	21.0	22.0	78	15.90	10
185	M 10	<b>111R10</b>		25	40	37.0	19.0	10.5	25.5	15.0	16.0	82	18.96	10
	M 12	<b>111R12</b>		25	40	37.0	19.0	13.0	25.5	16.0	17.0	82	18.11	10
	M 14	<b>111R14</b>	*	25	40	37.0	19.0	15.0	25.5	19.0	20.0	82	19.21	10
	M 16	<b>111R16</b>		25	40	37.0	19.0	17.0	25.5	19.0	20.0	82	18.74	25
	M 20	<b>111R20</b>		25	40	40.0	19.0	21.0	25.5	21.0	22.0	82	18.69	10
240	M 12	<b>112R12</b>		28	40	42.0	21.5	13.0	29.0	16.0	17.0	92	27.00	10
	M 14	<b>112R14</b>	*	28	40	42.0	21.5	15.0	29.0	19.0	20.0	92	27.58	10
	M 16	<b>112R16</b>		28	40	42.0	21.5	17.0	29.0	19.0	20.0	92	27.37	25
	M 20	<b>112R20</b>		28	40	45.0	21.5	21.0	29.0	21.0	22.0	92	26.88	10
300	M 12	<b>113R12</b>	*	32	50	46.0	24.5	13.0	32.0	14.0	22.0	100	32.89	5
	M 14	<b>113R14</b>	*	32	50	46.0	24.5	15.0	32.0	19.0	22.0	100	33.29	5
	M 16	<b>113R16</b>		32	50	46.0	24.5	17.0	32.0	19.0	22.0	100	32.94	5
	M 20	<b>113R20</b>		32	50	46.0	24.5	21.0	32.0	22.0	22.0	100	33.24	5
400	M 14	<b>114R14</b>	*	38	70	54.0	27.5	15.0	38.5	25.0	25.0	115	69.38	5
	M 16	<b>114R16</b>		38	70	54.0	27.5	17.0	38.5	25.0	25.0	115	68.54	5
	M 20	<b>114R20</b>		38	70	54.0	27.5	21.0	38.5	25.0	25.0	115	65.40	5
500	M 16	<b>115R16</b>	*	42	70	60.0	31.0	17.0	42.0	25.0	25.0	125	83.31	1
	M 20	<b>115R20</b>		42	70	60.0	31.0	21.0	42.0	25.0	25.0	125	81.58	1
625	M 16	<b>116R16</b>	*	44	80	64.0	34.5	17.0	44.0	25.0	25.0	135	79.60	1
	M 20	<b>116R20</b>		44	80	64.0	34.5	21.0	44.0	25.0	25.0	135	79.69	1
800	M 16	<b>117R16</b>	*	52	100	75.0	40.0	17.0	52.0	30.0	30.0	165	150.00	1
	M 20	<b>117R20</b>		52	100	75.0	40.0	21.0	52.0	30.0	30.0	165	149.00	1
1000	M 16	<b>118R16</b>	*	58	100	83.0	44.0	17.0	58.0	30.0	30.0	165	199.00	1
	M 20	<b>118R20</b>		58	100	83.0	44.0	21.0	58.0	30.0	30.0	165	195.00	1



## Angled compression cable lugs, Cu, 90° angled



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Tube dimensions according to DIN 46235
- ▶ With code number for clear tool assignment

### Characteristics

- With crimp markings for correct crimp positioning
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Annealed material optimises material and crimping properties

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Tool: see page 69

### Additional information

- Part Number appendix for bright version „BK“
- 10 - 240 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	d4	c1	l3		
6	M 5	<b>161R5</b>	5	10	8.5	3.8	5.3	5.5	6.5	9	0.28	50
	M 6	<b>161R6</b>	5	10	8.5	3.8	6.4	5.5	7.5	10	0.32	50
10	M 5	<b>162R5</b>	6	10	9.0	4.5	5.3	6.0	7.0	10	0.34	50
	M 6	<b>162R6</b>	6	10	9.0	4.5	6.4	6.0	7.5	10	0.35	50
16	M 8	<b>162R8</b>	6	10	13.0	4.5	8.4	6.0	10.0	13	0.37	50
	M 6	<b>163R6</b>	8	20	13.0	5.5	6.4	8.5	7.5	11	1.20	50
	M 8	<b>163R8</b>	8	20	13.0	5.5	8.4	8.5	10.0	13	1.30	50
25	M 10	<b>163R10</b>	8	20	17.0	5.5	10.5	8.5	12.0	15	1.40	50
	M 12	<b>163R12</b>	8	20	18.0	5.5	13.0	8.5	13.0	18	1.33	50
	M 6	<b>164R6</b>	10	20	14.0	7.0	6.4	10.0	7.5	11	1.54	25
35	M 8	<b>164R8</b>	10	20	16.0	7.0	8.4	10.0	10.0	13	1.60	25
	M 10	<b>164R10</b>	10	20	17.0	7.0	10.5	10.0	12.0	15	1.63	25
	M 12	<b>164R12</b>	10	20	19.0	7.0	13.0	10.0	13.0	18	1.70	25
50	M 8	<b>165R8</b>	12	20	17.0	8.2	8.4	12.5	10.0	13	2.72	25
	M 10	<b>165R10</b>	12	20	19.0	8.2	10.5	12.5	12.0	15	2.76	25
	M 12	<b>165R12</b>	12	20	21.0	8.2	13.0	12.5	13.0	18	2.85	25
50	M 14	<b>165R14</b>	12	20	21.0	8.2	15.0	12.5	14.5	20	2.92	25
	M 8	<b>166R8</b>	14	28	20.0	10.0	8.4	14.5	10.0	16	4.39	25
	M 10	<b>166R10</b>	14	28	22.0	10.0	10.5	14.5	12.0	16	4.46	25
	M 12	<b>166R12</b>	14	28	24.0	10.0	13.0	14.5	13.0	18	4.49	25
	M 14	<b>166R14</b>	14	28	24.0	10.0	15.0	14.5	14.5	20	4.73	25
	M 16	<b>166R16</b>	14	28	28.0	10.0	17.0	14.5	16.0	22	4.66	25

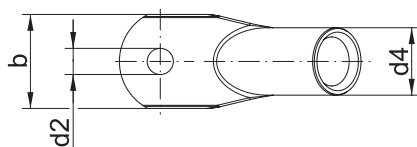
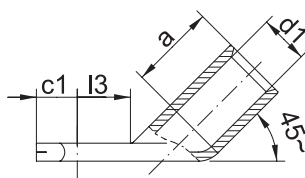
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### Angled compression cable lugs, Cu, 90° angled

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	d4	c1	l3		
70	M 8	<b>167R8</b>	16	28	24.0	11.5	8.4	16.5	10.0	14	5.92	25
	M 10	<b>167R10</b>	16	28	24.0	11.5	10.5	16.5	12.0	16	6.31	25
	M 12	<b>167R12</b>	16	28	24.0	11.5	13.0	16.5	13.0	18	6.34	25
	M 14	<b>167R14</b>	16	28	24.0	11.5	15.0	16.5	14.5	20	6.50	25
	M 16	<b>167R16</b>	16	28	30.0	11.5	17.0	16.5	16.0	22	6.63	25
95	M 10	<b>168R10</b>	18	35	28.0	13.5	10.5	19.0	12.0	17	9.03	25
	M 12	<b>168R12</b>	18	35	28.0	13.5	13.0	19.0	13.0	18	9.27	25
	M 14	<b>168R14</b>	18	35	28.0	13.5	15.0	19.0	14.5	20	9.06	25
	M 16	<b>168R16</b>	18	35	32.0	13.5	17.0	19.0	16.0	22	9.18	25
120	M 10	<b>169R10</b>	20	35	32.0	15.5	10.5	21.0	15.0	17	10.41	10
	M 12	<b>169R12</b>	20	35	32.0	15.5	13.0	21.0	16.0	18	10.65	10
	M 14	<b>169R14</b>	20	35	32.0	15.5	15.0	21.0	18.0	20	10.75	10
	M 16	<b>169R16</b>	20	35	32.0	15.5	17.0	21.0	19.0	22	10.72	10
	M 20	<b>169R20</b>	20	35	38.0	15.5	21.0	21.0	21.0	24	11.00	10
150	M 10	<b>170R10</b>	22	35	34.0	17.0	10.5	23.5	15.0	17	14.18	10
	M 12	<b>170R12</b>	22	35	34.0	17.0	13.0	23.5	16.0	18	14.33	10
	M 14	<b>170R14</b>	22	35	34.0	17.0	15.0	23.5	19.0	20	15.60	10
	M 16	<b>170R16</b>	22	35	34.0	17.0	17.0	23.5	19.0	22	15.24	10
	M 20	<b>170R20</b>	22	35	40.0	17.0	21.0	23.5	21.0	24	15.70	10
185	M 10	<b>171R10</b>	25	40	37.0	19.0	10.5	25.5	15.0	22	18.60	10
	M 12	<b>171R12</b>	25	40	37.0	19.0	13.0	25.5	16.0	22	18.69	10
	M 14	<b>171R14</b>	25	40	37.0	19.0	15.0	25.5	19.0	22	19.10	10
	M 16	<b>171R16</b>	25	40	37.0	19.0	17.0	25.5	19.0	22	19.00	10
	M 20	<b>171R20</b>	25	40	40.0	19.0	21.0	25.5	21.0	24	18.72	10
240	M 12	<b>172R12</b>	28	40	42.0	21.5	13.0	29.0	16.0	22	25.09	10
	M 14	<b>172R14</b>	28	40	42.0	21.5	15.0	29.0	19.0	22	25.70	10
	M 16	<b>172R16</b>	28	40	42.0	21.5	17.0	29.0	19.0	22	24.96	10
	M 20	<b>172R20</b>	28	40	45.0	21.5	21.0	29.0	21.0	24	25.26	10



## Angled compression cable lugs, Cu, 45° angled



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded multi-stranded sector shaped conductors
- ▶ Tube dimensions according to DIN 46235
- ▶ With code number for clear tool assignment

### Characteristics

- Flat contact surface by special angle pressing process
- Easy to process due to crimp markings
- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Tool: see page 69

### Additional information

- Part Number appendix for bright version „BK“
- 10 - 240 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							Weight/ 100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	d4	c1	l3		
6	M 5	<b>161R545</b>	5	10	8.5	3.8	5.5	5.5	6.5	9	0.32	50
	M 6	<b>161R645</b>	5	10	8.5	3.8	6.5	5.5	7.5	10	0.34	50
10	M 5	<b>162R545</b>	6	10	9.0	4.5	5.5	6.0	7.0	10	0.36	50
	M 6	<b>162R645</b>	6	10	9.0	4.5	6.5	6.0	7.5	10	0.35	50
16	M 8	<b>162R845</b>	6	10	13.0	4.5	8.5	6.0	10.0	13	0.39	50
	M 6	<b>163R645</b>	8	20	13.0	5.5	6.5	8.5	7.5	11	1.20	50
	M 8	<b>163R845</b>	8	20	13.0	5.5	8.5	8.5	10.0	13	0.28	50
25	M 10	<b>163R1045</b>	8	20	17.0	5.5	10.5	8.5	12.0	15	1.34	50
	M 12	<b>163R1245</b>	8	20	18.0	5.5	13.0	8.5	13.0	18	1.35	50
	M 6	<b>164R645</b>	10	20	14.0	7.0	6.5	10.0	7.5	11	1.49	25
35	M 8	<b>164R845</b>	10	20	16.0	7.0	8.5	10.0	10.0	13	1.60	25
	M 10	<b>164R1045</b>	10	20	17.0	7.0	10.5	10.0	12.0	15	1.64	25
	M 12	<b>164R1245</b>	10	20	19.0	7.0	13.0	10.0	13.0	18	1.73	25
50	M 8	<b>165R845</b>	12	20	17.0	8.2	8.5	12.5	10.0	13	2.72	25
	M 10	<b>165R1045</b>	12	20	19.0	8.2	10.5	12.5	12.0	15	2.92	25
	M 12	<b>165R1245</b>	12	20	21.0	8.2	13.0	12.5	13.0	18	2.98	25
75	M 14	<b>165R1445</b>	12	20	21.0	8.2	15.0	12.5	14.5	20	3.03	25
	M 8	<b>166R845</b>	14	28	20.0	10.0	8.5	14.5	10.0	13	4.63	25
	M 10	<b>166R1045</b>	14	28	22.0	10.0	10.5	14.5	12.0	16	4.84	25
	M 12	<b>166R1245</b>	14	28	24.0	10.0	13.0	14.5	13.0	18	4.94	25
100	M 14	<b>166R1445</b>	14	28	24.0	10.0	15.0	14.5	14.5	20	4.96	25
	M 16	<b>166R1645</b>	14	28	28.0	10.0	17.0	14.5	16.0	22	4.92	25

see next page

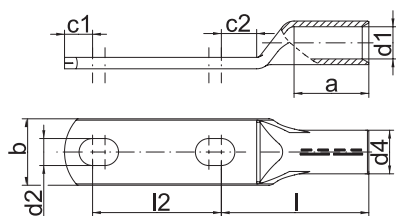


### Angled compression cable lugs, Cu, 45° angled

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm						Weight/100 pcs. ~ kg	Packing unit/pcs	
				a	b	d1	d2	d4	c1			l3
70	M 8	<b>167R845</b>	16	28	24.0	11.5	8.5	16.5	10.0	14	6.40	25
	M 10	<b>167R1045</b>	16	28	24.0	11.5	10.5	16.5	12.0	16	6.76	25
	M 12	<b>167R1245</b>	16	28	24.0	11.5	13.0	16.5	13.0	18	6.90	25
	M 14	<b>167R1445</b>	16	28	24.0	11.5	15.0	16.5	14.5	20	6.72	25
	M 16	<b>167R1645</b>	16	28	30.0	11.5	17.0	16.5	16.0	22	6.96	25
95	M 10	<b>168R1045</b>	18	35	28.0	13.5	10.5	19.0	12.0	17	9.64	25
	M 12	<b>168R1245</b>	18	35	28.0	13.5	13.0	19.0	13.0	18	9.21	25
	M 14	<b>168R1445</b>	18	35	28.0	13.5	15.0	19.0	14.5	20	9.51	25
	M 16	<b>168R1645</b>	18	35	32.0	13.5	17.0	19.0	16.0	22	9.40	25
120	M 10	<b>169R1045</b>	20	35	32.0	15.5	10.5	21.0	15.0	17	11.09	10
	M 12	<b>169R1245</b>	20	35	32.0	15.5	13.0	21.0	16.0	18	11.45	10
	M 14	<b>169R1445</b>	20	35	32.0	15.5	15.0	21.0	18.0	20	11.55	10
	M 16	<b>169R1645</b>	20	35	32.0	15.5	17.0	21.0	19.0	22	11.76	10
	M 20	<b>169R2045</b>	20	35	38.0	15.5	21.0	21.0	21.0	24	11.55	10
150	M 10	<b>170R1045</b>	22	35	34.0	17.0	10.5	23.5	15.0	17	15.93	10
	M 12	<b>170R1245</b>	22	35	34.0	17.0	13.0	23.5	16.0	18	16.08	10
	M 14	<b>170R1445</b>	22	35	34.0	17.0	15.0	23.5	19.0	20	16.38	10
	M 16	<b>170R1645</b>	22	35	34.0	17.0	17.0	23.5	19.0	22	16.90	10
	M 20	<b>170R2045</b>	22	35	40.0	17.0	21.0	23.5	21.0	24	16.49	10
185	M 10	<b>171R1045</b>	25	40	37.0	19.0	10.5	25.5	15.0	22	20.16	10
	M 12	<b>171R1245</b>	25	40	37.0	19.0	13.0	25.5	16.0	22	19.60	10
	M 14	<b>171R1445</b>	25	40	37.0	19.0	15.0	25.5	19.0	22	20.05	10
	M 16	<b>171R1645</b>	25	40	37.0	19.0	17.0	25.5	19.0	22	19.68	10
	M 20	<b>171R2045</b>	25	40	40.0	19.0	21.0	25.5	21.0	24	19.95	10
240	M 12	<b>172R1245</b>	28	40	42.0	21.5	13.0	29.0	16.0	22	26.46	10
	M 14	<b>172R1445</b>	28	40	42.0	21.5	15.0	29.0	19.0	22	26.99	10
	M 16	<b>172R1645</b>	28	40	42.0	21.5	17.0	29.0	19.0	22	26.92	10
	M 20	<b>172R2045</b>	28	40	45.0	21.5	21.0	29.0	21.0	24	26.88	10



## Compression cable lugs to DIN special type, Cu with 2 holes



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimensions according to DIN 46235
- ▶ With code number for clear tool assignment

### Characteristics

- Easy to process due to crimp markings
- Annealed material optimises material and crimping properties
- Flat contact surface by special pressing technique
- Internal chamfer for simple cable insertion

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

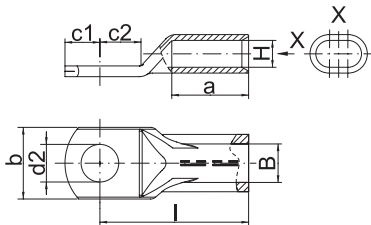
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Tool: see page 69

### Additional information

- Part Number appendix for bright version „BK“

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm								Weight/100 pcs. ~ kg	Packing unit/pcs	
				a	b	d1	d2	d4	c1	c2	l			l2
70	2 x M 12	<b>147D212</b>	16	28	24	11.5	13	16.5	13	13	55	50 - 62	10.82	5
95		<b>148D212</b>	18	35	28	13.5	13	19.0	13	13	65	50 - 62	15.24	5
120		<b>149D212</b>	20	35	32	15.5	13	21.0	16	17	70	50 - 62	18.62	5
150		<b>150D212</b>	22	35	34	17.0	13	23.5	16	17	78	50 - 62	26.10	5
185		<b>151D212</b>	25	40	37	19.0	13	25.5	16	17	82	50 - 62	30.48	5
240		<b>152D212</b>	28	40	42	21.5	13	29.0	16	17	92	50 - 62	41.52	5

### Compression cable lugs, special type, Cu with 1 hole, double crimping



- ▶ Special design for mounting of 2 multi-stranded cables, e.g. to DIN EN 60228 Cl. 2
- ▶ With crimp markings for correct crimp positioning

**Characteristics**

- Annealed material optimises material and crimping properties
- Simple and safe connection due to flat contact surfaces and internal chamfer

**Material**

- Copper (EN13600)

**Surface**

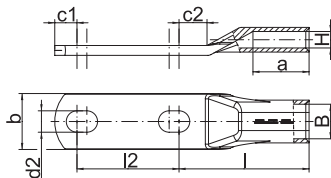
- Tin-plated to protect against corrosion

**Technical instructions**

- Tool: see page 70

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							H	B	Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d2	c1	c2	l					
2 x 50	M 12	<b>136DP12</b>	22 DP	35	34	13	16	17	78	10.0	20	16.30	5	
2 x 70		<b>137DP12</b>	24 DP	40	37	13	16	17	82	11.5	23	18.90	5	
2 x 95		<b>138DP12</b>	29 DP	40	42	13	16	17	92	13.5	27	27.12	5	
2 x 120		<b>139DP12</b>	32 DP	50	48	13	19	22	100	15.5	31	33.50	5	

### Compression cable lugs, special type, Cu with 2 long holes, double crimping



- ▶ Special design for mounting of 2 multi-stranded cables, e.g. to DIN EN 60228 Cl. 2
- ▶ With crimp markings for correct crimp positioning

**Characteristics**

- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer
- Flat contact surface by special pressing technique

**Material**

- Copper (EN13600)

**Surface**

- Tin-plated to protect against corrosion

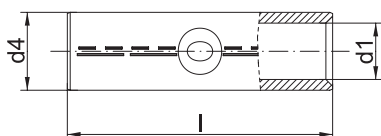
**Technical instructions**

- Tool: see page 70

Nominal cross section mm <sup>2</sup>	Size of bolt diameter	Part No.	Code	Dimension mm							H	B	Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d2	c1	c2	l	l2				
2 x 50	2 x M 12	<b>136DP212</b>	22 DP	35	34	13	16	17	78	50 - 62	10.0	20	23.20	5
2 x 70		<b>137DP212</b>	24 DP	40	37	13	16	17	82	50 - 62	11.5	23	29.64	5
2 x 95		<b>138DP212</b>	29 DP	40	42	13	16	17	92	50 - 62	13.5	27	38.50	5
2 x 120		<b>139DP212</b>	32 DP	50	48	13	19	22	100	50 - 62	15.5	31	45.80	5



## Compression joints to DIN, Cu



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6 and pre-rounded sector shaped conductors
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ To DIN 46267, Part 1
- ▶ With code number for clear tool assignment
- ▶ With crimp markings for correct crimp positioning

### Characteristics

- Simple and safe processing due to butt mark
- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

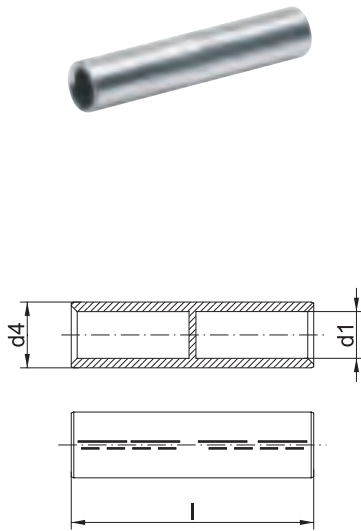
- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Tool: see page 69
- Reduction sleeves for connecting unequal cross-sections can be found on page 68

### Additional information

- Part Number appendix for bright version „BK“
- 10 - 800 mm<sup>2</sup> IEC-tested

Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	d4	l		
6	121R	5	3.8	5.5	30	0.31	100
10	122R	6	4.5	6.0	30	0.34	100
16	123R	8	5.5	8.5	50	1.45	100
25	124R	10	7.0	10.0	50	1.77	50
35	125R	12	8.2	12.5	50	2.89	50
50	126R	14	10.0	14.5	56	4.26	50
70	127R	16	11.5	16.5	56	5.41	50
95	128R	18	13.5	19.0	70	8.62	25
120	129R	20	15.5	21.0	70	9.66	25
150	130R	22	17.0	23.5	80	14.50	10
185	131R	25	19.0	25.5	85	17.00	10
240	132R	28	21.5	29.0	90	23.41	10
300	133R	32	24.5	32.0	100	29.23	5
400	134R	38	27.5	38.5	150	74.32	5
500	135R	42	31.0	42.0	160	89.09	1
625	136R	44	34.5	44.0	160	79.10	1
800	137R	52	40.0	52.0	200	151.00	1
1000	138R	58	44.0	58.0	200	198.00	1

## Compression joints, Cu



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6 and pre-rounded sector shaped conductors
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Barrier design with oil stop
- ▶ Tube dimension to DIN 46267, part 1
- ▶ With code number for clear tool assignment

### Characteristics

- Easy to process due to crimp markings
- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Suitable for

- Non-tension connections

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Tool: see page 69
- Reduction sleeves for connecting unequal cross-sections can be found on page 68

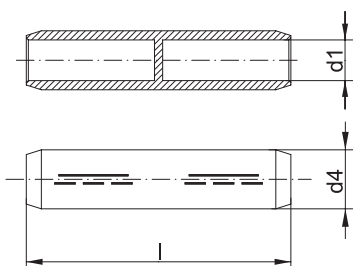
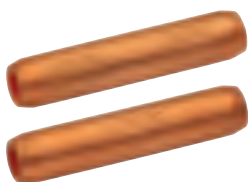
### Additional information

- Part Number appendix for bright version „BK“

Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm			Weight/ 100 pcs. ~ kg	Packing unit/pcs
			d1	d4	l		
16	523R	8	5.5	8.5	50	1.54	25
25	524R	10	7.0	10.0	50	1.84	25
35	525R	12	8.2	12.5	50	2.99	25
50	526R	14	10.0	14.5	56	4.46	25
70	527R	16	11.5	16.5	56	5.61	25
95	528R	18	13.5	19.0	70	8.88	25
120	529R	20	15.5	21.0	70	10.06	5
150	530R	22	17.0	23.5	80	14.89	5
185	531R	25	19.0	25.5	85	17.57	5
240	532R	28	21.5	29.0	90	24.23	5
300	533R	32	24.5	32.0	100	30.15	5
400	534R	38	27.5	38.5	150	75.60	5
500	535R	42	31.0	42.0	160	92.00	1



## Compression joint for cable connections 10 - 30 kV, copper



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2 and pre-rounded sector shaped conductors
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Tube dimension to DIN 46267, part 1
- ▶ For copper medium-voltage cable connections 10 - 30 kV
- ▶ With chamfered edges for reduced electrical stress in the assembly

### Characteristics

- Also available as barrier design with oil stop
- Easy to process due to crimp markings
- Annealed material optimises material and crimping properties
- Simple cable entry due to internal chamfer

### Suitable for

- Non-tension connections

### Material

- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Tool: see page 69
- Reduction sleeves for connecting unequal cross-sections can be found on page 68

### Additional information

- Part Number appendix for tinned version „V“

Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm			Number of crimps		Weight/ 100 pcs. ~ kg	Packing unit/ pcs
			d1	d4	l	Cu (5 mm)	Cu (wide)		
<b>Normalversion</b>									
25	504R	12	7.5	12.5	60	2/2	1/1	4.08	10
35	505R	12	8.2	12.5	60	2/2	1/1	3.56	10
50	506R	14	10.0	14.5	65	3/3	1/1	4.90	10
70	507R	16	11.5	16.5	65	3/3	1/1	6.10	10
95	508R	18	13.5	19	90	4/4	2/2	10.98	10
120	509R	20	15.5	21	90	4/4	2/2	12.68	5
150	510R	22	17.0	23.5	105	4/4	2/2	18.09	5
185	511R	25	19.0	25.5	105	4/4	2/2	20.35	5
240	512R	28	21.5	29	125		2/2	31.64	5
300	513R	32	24.5	32	125		2/2	35.40	1
400	514R	38	27.5	38.5	160		3/3	75.42	1
<b>Barrier version</b>									
25	504RLD	12	7.5	12.5	60	2/2	1/1	4.08	25
35	505RLD	12	8.2	12.5	60	2/2	1/1	3.56	10
50	506RLD	14	10.0	14.5	65	3/3	1/1	4.90	10
70	507RLD	16	11.5	16.5	65	3/3	1/1	6.40	10
95	508RLD	18	13.5	19	90	4/4	2/2	10.98	10
120	509RLD	20	15.5	21	90	4/4	2/2	12.68	5
150	510RLD	22	17.0	23.5	105	4/4	2/2	18.84	5
185	511RLD	25	19.0	25.5	105	4/4	2/2	20.35	5
240	512RLD	28	21.5	29	125		2/2	31.64	5
300	513RLD	32	24.5	32	125		2/2	35.40	1
400	514RLD	38	27.5	38.5	160		3/3	75.42	1





## Compression joints to DIN, Cu



- ▶ For connecting copper cables to DIN 48201, Part 1
- ▶ For full tension cable connections
- ▶ To DIN 48085, Part 1
- ▶ With code number for clear tool assignment
- ▶ With crimp markings for correct crimping

### Characteristics

- Easy to process due to crimp markings
- Simple and safe processing due to butt mark
- Simple cable entry due to internal chamfer

### Material

- Copper (EN13600)

### Surface

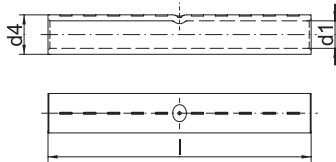
- Bright

### Technical instructions

- To process item 192R use crimping die HAD45240
- Tool: see page 69

### Additional information

- \* = not standardised
- 16 - 70 mm<sup>2</sup> IEC-tested



Nominal cross section mm <sup>2</sup>	Part No.	Hint	Code	Dimension mm			Number of crimps		conductor dia. mm	Weight/ 100 pcs. ~ kg	Packing unit/pcs
				d1	d4	l	Cu (5 mm)	Cu (wide)			
6	<b>181R</b>	*	6	3.5	6.5	65	4/4		3.00	1.4	10
10	<b>182R</b>		8	4.5	8.5	80	5/5		4.05	3.0	10
16	<b>183R</b>		8	5.5	8.5	95	5/5		5.10	2.8	10
25	<b>184R</b>		10	7.0	10.0	95	5/5		6.30	3.4	10
35	<b>185R</b>		12	8.2	12.5	95	5/5		7.50	5.6	10
50	<b>186R</b>		14	10.0	14.5	110	5/5		9.00	8.6	10
70	<b>187R</b>		16	11.5	16.5	110	5/5		10.50	10.8	10
95	<b>188R</b>		20	13.5	21.0	145	8/8	4/4	12.50	26.2	10
120	<b>189R</b>		22	15.0	23.5	160	8/8	4/4	14.00	36.8	10
150	<b>190R</b>		25	16.5	25.5	180	8/8	4/4	15.70	47.5	5
185	<b>191R</b>	*	32	18.5	31.5	260		5/5	17.50	118.0	5
240	<b>192R</b>	*	34	21.0	34.5	310		6/6	20.20	163.0	5
300	<b>193R</b>	*	38	23.5	38.5	360		7/7	22.50	235.0	1



## Reduction sleeves, Cu



- ▶ For multi-stranded, round conductors e.g. to DIN EN 60228 Cl. 2
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For connecting different conductor cross-sections
- ▶ For use in DIN compression joints and connectors, standard type

### Characteristics

- Simple cable entry due to internal chamfer

### Suitable for

- For non-tension compression joints

### Material

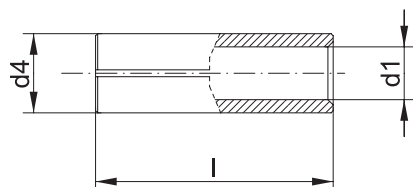
- Copper (EN13600)

### Surface

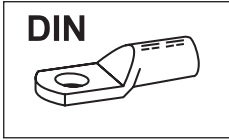
- Bright

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-7



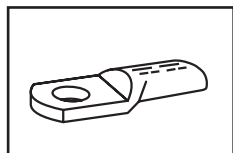
Part No.	Nominal cross section mm <sup>2</sup> from	Nominal cross section mm <sup>2</sup> to	Dimension mm			Weight/100 pcs. ~ kg	Packing unit/pcs
			d1	d4	l		
RH2510	25	10	4.6	6.6	25	0.358	25
RH2516	25	16	5.5	6.6	25	0.350	25
RH3510	35	10	4.5	8.0	25	0.707	25
RH3516	35	16	5.5	8.0	25	0.570	25
RH3525	35	25	7.0	8.0	25	0.253	25
RH5016	50	16	5.5	9.5	33	1.326	25
RH5025	50	25	7.0	9.5	33	0.923	25
RH5035	50	35	8.5	9.5	33	0.404	25
RH7025	70	25	7.0	11.0	33	1.580	25
RH7035	70	35	8.5	11.0	33	1.102	25
RH7050	70	50	10.0	11.0	33	0.486	25
RH9535	95	35	8.5	13.0	45	2.940	25
RH9550	95	50	10.0	13.0	45	2.136	25
RH9570	95	70	11.5	13.0	45	1.100	25
RH12050	120	50	10.0	15.0	45	3.802	25
RH12070	120	70	11.5	15.0	45	2.874	25
RH12095	120	95	13.5	15.0	45	1.340	25
RH15070	150	70	11.5	16.5	53	5.008	5
RH15095	150	95	13.5	16.5	53	3.212	5
RH150120	150	120	15.5	16.5	53	1.248	5
RH18595	185	95	13.5	18.5	53	5.824	5
RH185120	185	120	15.5	18.5	53	3.756	5
RH185150	185	150	17.0	18.5	53	1.660	5
RH240120	240	120	15.5	21.0	55	7.412	5
RH240150	240	150	17.0	21.0	55	5.740	5
RH240185	240	185	19.0	21.0	55	3.036	5
RH300150	300	150	17.0	24.0	58	11.200	5
RH300185	300	185	19.0	24.0	58	8.390	5
RH300240	300	240	21.5	24.0	58	4.526	5
RH400185	400	185	19.0	27.0	80	20.100	5
RH400240	400	240	21.5	27.0	80	14.270	5
RH400300	400	300	24.5	27.0	80	8.800	5



## Tool application chart

### Compression cable lugs and compression joints

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	6 - 50	K05D		235		⊕
	10 - 120	K06D		237		⊕
	25 - 150	K09D		238		⊕
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	6 - 120	K354		246	330	⊕
	6 - 185	K18		248	338	⊕
	6 - 300	K22		250	343	⊕
Hand hydraulic crimping tools	6 - 185	HK6018		292	338	⊕
		HK60UNV	+UA18	473	338	⊕
	6 - 300	HK6022		294	343	⊕
		HK60UNV	+UA22	473	343	⊕
	16 - 300	HK12030		298	348	⊕
		HK12042		300	348	⊕
		HK120U		302	348	⊕
120 - 1000	HK45		321	358	⊕	
Battery powered crimping tools	6 - 120	EK354ML		262	330	⊕
		EK354		266	330	⊕
	6 - 185	EK505		268	334	⊕
		EK5018		270	338	⊕
		EK60UNV	+UA18	476	338	⊕
		EKM60UNV	+UA18	475	338	⊕
	6 - 300	EK6022		247	343	⊕
		EKM6022		272	343	⊕
		EK60UNV	+UA22	476	343	⊕
		EKM60UNV	+UA22	475	343	⊕
	16 - 300	EK12032		280	348	⊕
		EK12042		282	348	⊕
		EK120U		284	348	⊕
		EK120UNV	+UA12T	477	348	⊕
EK135FT		+UA15T	286	348	⊕	
400 - 625	EK135FT		286	352	⊕	
Hydraulic crimping systems	6 - 185	THK18		306	338	⊕
	6 - 240	THK22		308	343	⊕
		HK122EL380		322	343	⊕
	16 - 625	HK252		320	354	⊕
		HK252EL380		323	354	⊕
Hydraulic crimping heads	6 - 185	PK18		306	338	⊕
		PK60UNV	+UA18	474	338	⊕
	6 - 300	PK22		308	343	⊕
		PK60UNV	+UA22	474	343	⊕
	16 - 300	PK12042		312	348	⊕
		PK120U		314	348	⊕
	16 - 625	PK252		316	354	⊕
	120 - 1000	PK45		318	358	⊕



## Tool application chart

### Double compression cable lugs

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	2x50 - 2x70	K22		250	343	○
Hand hydraulic crimping tools	2x50 - 2x70	HK6022		294	343	○
		HK60UNV	+UA22	473	343	○
	2x50 - 2x95	HK12030		298	348	○
		HK12042		300	348	○
Battery powered crimping tools	2x50 - 2x70	EK6022		274	343	○
		EKM6022		272	343	○
		EK60UNV	+UA22	476	343	○
		EKM60UNV	+UA22	475	343	○
	2x50 - 2x95	EK12032		280	348	○
		EK12042		282	348	○
		EK120U		284	348	○
		EK135FT	+UA15T	286	348	○
		EK120UNV	+UA12T	477	348	○
		Hydraulic crimping systems	2x50 - 2x70	THK22		308
2x50 - 2x95	HK122EL380			322	348	○
2x50 - 2x120	HK252			320	354	○
	HK252EL380			323	354	○
Hydraulic crimping heads	2x50 - 2x70	PK22		308	343	○
		PK60UNV	+UA22	474	343	○
	2x50 - 2x95	PK12042		312	348	○
		PK120U		314	348	○
	2x50 - 2x120	PK252		316	354	○





# PUNCHED - SOLDERLESS TERMINALS MADE FROM COPPER TO DIN 46234

Unlike the tubular cable lugs, Klauke solderless terminals are punched from a sheet, bent and then hard soldered in the crimp area. The grooved profile on the inside ensures higher conductor pull-out values. This product's small dimensions make it the ideal solution for confined areas.



#### **In brief**

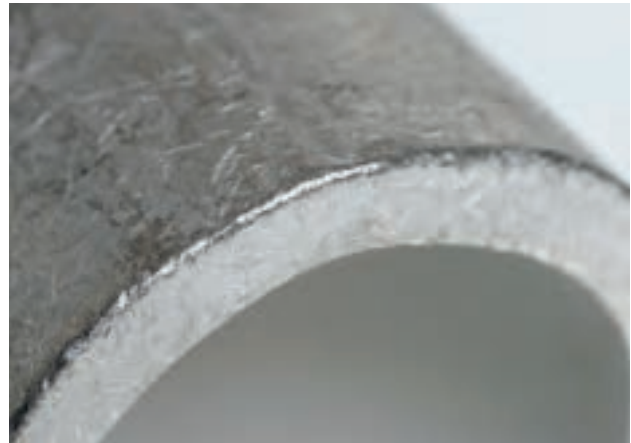
- ▶ **Reliable crimping due to high-quality solder seam**
- ▶ **Small dimensions for confined areas**
- ▶ **Suitable for multi-stranded, fine-stranded and superfine-stranded conductors**



**▶ Hard soldered for reliable contact**

The quality of Klauke cable lugs is also evident during the crimping operation: The solderless terminal always remains intact due to the high-quality solder seam. Guaranteed quality.

- Reliable contact due to high-quality solder seam and tinning
- Best possible contacting with ribbed profile
- Optimum solution for confined areas thanks to highly-compact dimensions
- Insulated and non-insulated versions



**▶ Well insulated**

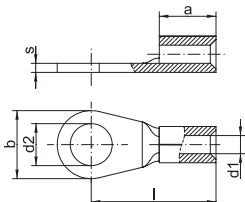
Klauke products make your day-to-day work easier. Thanks to the widened insulation, the conductor can be very conveniently inserted into our insulated solderless terminals. The insulation remains intact even after crimping, eliminating the need for retrospective insulation. Everything accomplished in one operation.

- Easy to use thanks to widened sleeve
- No additional insulation, hence fast processing
- As a fork-type, ideal for connecting meters in confined areas for example
- Easy conductor insertion thanks to widened sleeve





### Solderless terminals to DIN, Cu



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ To DIN 46234
- ▶ High-quality brazing process in the crimp area

#### Characteristics

- Improved contact properties due to grooved profile

#### Material

- Copper (ETP)

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

- Tool: see page 82

#### Additional information

- \* = not standardised
- 0.5 - 6 mm<sup>2</sup> not UL-tested

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Hint	Dimension mm						Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	l	s		
0.5 - 1	2.5 - 1	162025		5	6	1.6	2.8	11	0.8	0.060	100
	3 - 1	16203		5	6	1.6	3.2	11	0.8	0.060	100
	3.5 - 1	162035		5	6	1.6	3.7	11	0.8	0.055	100
	4 - 1	16204		5	8	1.6	4.3	12	0.8	0.070	100
	5 - 1	16205		5	10	1.6	5.3	13	0.8	0.090	100
	6 - 1	16206	*	5	11	1.6	6.5	15	0.8	0.080	100
	8 - 1	16208	*	5	14	1.6	8.4	17	0.8	0.130	100
	10 - 1	162010	*	5	18	1.6	10.5	19	0.8	0.130	100
1.5 - 2.5	3 - 2.5	16303		5	6	2.3	3.2	11	0.8	0.065	100
	4 - 2.5	16304		5	8	2.3	4.3	12	0.8	0.080	100
	3.5 - 2.5	163035		5	6	2.3	3.7	11	0.8	0.065	100
	5 - 2.5	16305		5	10	2.3	5.3	14	0.8	0.090	100
	6 - 2.5	16306		5	11	2.3	6.5	16	0.8	0.110	100
	8 - 2.5	16308		5	14	2.3	8.4	17	0.8	0.130	100
	10 - 2.5	163010	*	5	18	2.3	10.5	19	0.8	0.160	100
12 - 2.5	163012	*	5	18	2.3	13.0	19	0.8	0.160	100	
4 - 6	4 - 6	16504		6	8	3.6	4.3	14	1.0	0.140	100
	5 - 6	16505		6	10	3.6	5.3	15	1.0	0.160	100
	6 - 6	16506		6	11	3.6	6.5	16	1.0	0.170	100
	8 - 6	16508		6	14	3.6	8.4	19	1.0	0.220	100
	10 - 6	165010		6	18	3.6	10.5	21	1.0	0.290	100
	12 - 6	165012	*	6	18	3.6	13.0	21	1.0	0.280	100
10	5 - 10	16525		8	10	4.5	5.3	16	1.1	0.230	100
	6 - 10	16526		8	11	4.5	6.5	17	1.1	0.24	100
	8 - 10	16528		8	14	4.5	8.4	20	1.1	0.340	100
	10 - 10	165210		8	18	4.5	10.5	21	1.1	0.340	100
	12 - 10	165212		8	22	4.5	13.0	23	1.1	0.420	100
16	5 - 16	16535		10	11	5.8	5.3	20	1.2	0.390	100
	6 - 16	16536		10	11	5.8	6.5	20	1.2	0.380	100
	8 - 16	16538		10	14	5.8	8.4	22	1.2	0.43	100
	10 - 16	165310		10	18	5.8	10.5	24	1.2	0.500	100
	12 - 16	165312		10	18	5.8	13.0	24	1.2	0.500	100

see next page

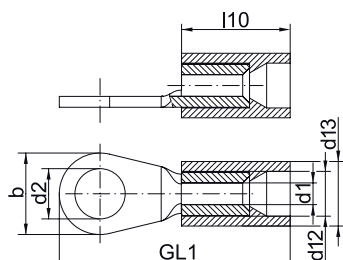


## Solderless terminals to DIN, Cu

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Hint	Dimension mm						Weight/100 pcs. ~ kg	Packing unit/pcs
				a	b	d1	d2	l	s		
25	5 - 25	<b>16545</b>		11	12	7.5	5.3	25	1.5	0.750	100
	6 - 25	<b>16546</b>		11	12	7.5	6.5	25	1.5	0.750	100
	8 - 25	<b>16548</b>		11	16	7.5	8.4	25	1.5	0.750	100
	10 - 25	<b>165410</b>		11	18	7.5	10.5	26	1.5	0.750	100
	12 - 25	<b>165412</b>		11	22	7.5	13.0	31	1.5	0.920	100
	16 - 25	<b>165416</b>		11	28	7.5	17.0	35	1.5	1.320	100
35	6 - 35	<b>16556</b>		12	16	9.0	8.4	26	1.6	0.980	100
	8 - 35	<b>16558</b>		12	16	9.0	8.4	26	1.6	0.980	100
	10 - 35	<b>165510</b>		12	18	9.0	10.5	27	1.6	1.000	100
	12 - 35	<b>165512</b>		12	22	9.0	13.0	31	1.6	1.260	100
	16 - 35	<b>165516</b>		12	28	9.0	17.0	36	1.6	1.550	100
50	6 - 50	<b>16566</b>		16	18	11.0	6.5	34	1.8	1.650	100
	8 - 50	<b>16568</b>		16	18	11.0	8.4	34	1.8	1.650	100
	10 - 50	<b>165610</b>		16	18	11.0	10.5	34	1.8	1.600	100
	12 - 50	<b>165612</b>		16	22	11.0	13.0	36	1.8	1.800	100
	16 - 50	<b>165616</b>		16	28	11.0	17.0	40	1.8	2.100	100
70	6 - 70	<b>16576</b>		18	22	13.0	6.5	38	2.0	2.600	50
	8 - 70	<b>16578</b>		18	22	13.0	8.4	38	2.0	2.500	50
	10 - 70	<b>165710</b>		18	22	13.0	10.5	38	2.0	2.500	50
	12 - 70	<b>165712</b>		18	22	13.0	13.0	38	2.0	2.400	50
	16 - 70	<b>165716</b>		18	28	13.0	17.0	42	2.0	2.700	50
95	8 - 95	<b>16588</b>		20	24	15.0	8.4	42	2.5	4.300	50
	10 - 95	<b>165810</b>		20	24	15.0	10.5	42	2.5	4.1	50
	12 - 95	<b>165812</b>		20	24	15.0	13.0	42	2.5	3.900	50
	16 - 95	<b>165816</b>		20	28	15.0	17.0	44	2.5	4.100	50
120	8 - 120	<b>16598</b>		22	24	17.0	8.4	44	3.0	5.601	50
	10 - 120	<b>165910</b>		22	24	17.0	10.5	44	3.0	5.600	50
	12 - 120	<b>165912</b>		22	24	17.0	13.0	44	3.0	5.400	50
	16 - 120	<b>165916</b>		22	28	17.0	17.0	48	3.0	5.800	50
150	10 - 150	<b>166010</b>		24	30	19.0	10.5	50	3.2	7.600	50
	12 - 150	<b>166012</b>		24	30	19.0	13.0	50	3.2	7.600	50
	16 - 150	<b>166016</b>		24	30	19.0	17.0	50	3.2	7.500	50
185	12 - 185	<b>166112</b>		28	36	21.0	13.0	50	3.5	11.300	50
	16 - 185	<b>166116</b>		28	36	21.0	17.0	50	3.5	11.300	50
240	12 - 240	<b>166212</b>		32	38	23.5	13.0	56	4.0	15.900	25
	16 - 240	<b>166216</b>		32	38	23.5	17.0	56	4.0	15.900	25



### Insulated solderless terminals, Cu with Easy-Entry



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ High-quality brazing process in the crimp area
- ▶ Fast preparation as no additional insulation of the crimped connection is required
- ▶ Simple processing due to crimping over the insulation
- ▶ Insulation sleeve halogen-free

#### Characteristics

- Insulating, halogen-free with easy-entry cable insertion
- Dimensions in tube according to DIN 46234
- Improved contact properties due to grooved profile
- Cross-section-dependent colour-coding
- Heat resistant to 105° C

#### Material

- Copper (ETP)
- Insulation sleeve: PA

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

- Tool: see page 84

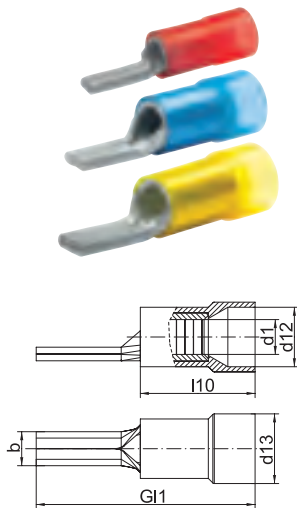
Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm							Weight 100 pcs. ~kg Cu	Weight 100 pcs. ~kg Total	Packing unit/ pcs
			b	d1	d12	d13	d2	GL1	l10			
10	6525	■	10	4.5	6.7	8.6	5.3	34.0	19.0	0.27	0.27	100
	6526	■	11	4.5	6.7	8.6	6.5	34.0	19.0	0.24	0.28	100
	6528	■	14	4.5	6.7	8.6	8.4	37.5	19.0	0.29	0.33	100
	65210	■	18	4.5	6.7	8.6	10.5	41.5	19.0	0.34	0.38	100
	65212	■	22	4.5	6.7	8.6	13.0	45.5	19.0	0.42	0.46	100
16	6535	■	11	5.8	7.7	9.6	5.3	39.5	20.5	0.39	0.44	100
	6536	■	11	5.8	7.7	9.6	6.5	39.5	20.5	0.38	0.43	100
	6538	■	14	5.8	7.7	9.6	8.4	41.5	20.5	0.43	0.48	100
	65310	■	18	5.8	7.7	9.6	10.5	43.5	20.5	0.50	0.55	100
25	65312	■	18	5.8	7.7	9.6	13.0	50.5	20.5	0.58	0.63	100
	6545	■	12	7.5	11.0	13.0	5.3	40.0	20.0	0.75	0.84	50
	6546	■	12	7.5	11.0	13.0	6.5	42.5	20.0	0.69	0.78	50
	6548	■	16	7.5	11.0	13.0	8.4	43.0	20.0	0.75	0.84	50
	65410	■	18	7.5	11.0	13.0	10.5	45.0	20.0	0.80	0.89	50
35	65412	■	22	7.5	11.0	13.0	13.0	51.0	20.0	0.92	1.00	50
	65416	■	28	7.5	11.0	13.0	17.0	59.0	20.0	1.32	1.40	50
	6556	■	16	9.0	12.7	15.0	6.5	44.0	22.5	1.01	1.14	50
	6558	■	16	9.0	12.7	15.0	8.4	44.5	22.5	0.98	1.10	50
	65510	■	18	9.0	12.7	15.0	10.5	46.5	22.5	1.00	1.12	50
50	65512	■	22	9.0	12.7	15.0	13.0	52.5	22.5	1.26	1.38	50
	65516	■	28	9.0	12.7	15.0	17.0	54.5	22.5	1.55	1.67	50
	6566	■	18	11.0	15.4	18.0	6.5	54.5	27.5	1.65	1.90	50
	6568	■	18	11.0	15.4	18.0	8.4	60.5	27.5	1.65	1.90	50
	65610	■	18	11.0	15.4	18.0	10.5	60.5	27.5	1.60	1.85	50
50	65612	■	22	11.0	15.4	18.0	13.0	60.5	27.5	1.80	2.05	50
	65616	■	28	11.0	15.4	18.0	17.0	67.5	27.5	2.10	2.35	50

see next page

## Insulated solderless terminals, Cu with Easy-Entry

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm							Weight 100 pcs. ~kg Cu	Weight 100 pcs. ~kg Total	Packing unit/ pcs
			b	d1	d12	d13	d2	GI1	I10			
70	6576	Yellow	22	13.0	17.4	20.0	6.5	61.5	30.5	2.60	2.90	50
	6578	Yellow	22	13.0	17.4	20.0	8.4	61.5	30.5	2.50	2.80	50
	65710	Yellow	22	13.0	17.4	20.0	10.5	66.5	30.5	2.50	2.80	50
	65712	Yellow	22	13.0	17.4	20.0	13.0	66.5	30.5	2.40	2.70	50
	65716	Yellow	28	13.0	17.4	20.0	17.0	70.5	30.5	2.70	3.00	50
95	65810	Red	24	15.0	20.5	23.5	10.5	70.0	34.0	4.10	4.50	25
	65812	Red	24	15.0	20.5	23.5	13.0	70.0	34.0	3.90	4.40	25
	65816	Red	28	15.0	20.5	23.5	17.0	76.0	34.0	4.10	4.50	25
120	65910	Blue	24	17.0	23.5	26.7	10.5	79.0	36.0	5.60	6.10	25
	65912	Blue	24	17.0	23.5	26.7	13.0	82.0	36.0	5.40	5.90	25
	65916	Blue	28	17.0	23.5	26.7	17.0	90.0	36.0	5.80	6.30	25
150	66010	Yellow	30	19.0	26.0	29.2	10.5	80.0	39.0	7.60	8.40	25
	66012	Yellow	30	19.0	26.0	29.2	13.0	83.0	39.0	7.60	8.40	25
	66016	Yellow	30	19.0	26.0	29.2	17.0	83.0	39.0	7.50	8.30	25

## Insulated pin terminals, Cu with Easy-Entry



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ High-quality brazing process in the crimp area
- ▶ Fast preparation as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Insulating, halogen-free with easy-entry cable insertion
- Improved contact properties due to grooved profile
- Cross-section-dependent colour-coding
- Heat resistant to 105° C

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

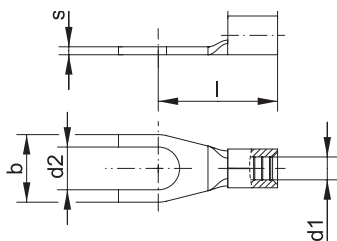
### Technical instructions

- Tool: see page 84

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm						Weight 100 pcs. ~kg Cu	Weight 100 pcs. ~kg Total	Packing unit/ pcs
			b	d1	d12	d13	GI1	I10			
10	ST1716IS	Red	4.3	4.3	7.4	9.4	33.0	19.0	0.27	0.31	100
16	ST1717IS	Blue	5.5	5.4	8.6	10.6	38.0	20.0	0.39	0.44	100
25	ST1718IS	Yellow	6.8	6.7	12.5	14.5	43.5	23.5	0.63	0.73	50
35	ST1719IS	Red	8.0	8.2	14.0	16.4	51.5	27.5	1.17	1.34	50
50	ST1720IS	Blue	9.5	9.5	15.5	18.0	59.0	33.0	1.79	2.10	50
70	ST1721IS	Yellow	11.0	11.2	18.0	20.5	69.0	38.0	2.92	3.20	50
95	ST1722IS	Red	12.5	13.5	20.7	23.5	71.0	40.0	4.30	4.70	25



### Solderless terminals, Cu, fork type



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ Dimensions in tube to 6 mm<sup>2</sup> to DIN 46234
- ▶ Simple fork-type mounting
- ▶ High-quality brazing process in the crimp area



#### Characteristics

- Improved contact properties due to grooved profile



#### Material

- Copper (ETP)



#### Surface

- Tin-plated to protect against corrosion



#### Technical instructions

- Tool: see page 82

#### Additional information

- 0.5 - 6 mm<sup>2</sup> not UL-certified

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Dimension mm						Weight 100 pcs. ~kg	Packing unit/ pcs
			a	b	d1	d2	l	s		
0.5 - 1	3 - 1	<b>1620C3</b>	5.0	6.0	1.6	3.2	11.0	0.8	0.060	100
	3.5 - 1	<b>1620C35</b>	5.0	6.0	1.6	3.7	11.0	0.8	0.060	100
	4 - 1	<b>1620C4</b>	5.0	6.8	1.6	4.3	12.0	0.8	0.070	100
	5 - 1	<b>1620C5</b>	5.0	10.0	1.6	5.3	13.0	0.8	0.090	100
	6 - 1	<b>1620C6</b>	5.0	11.0	1.6	6.5	15.0	0.8	0.080	100
1.5 - 2.5	3 - 2.5	<b>1630C3</b>	5.0	5.5	2.3	3.2	13.8	0.8	0.065	100
	3.5 - 2.5	<b>1630C35</b>	5.0	6.0	2.3	3.7	11.0	0.8	0.065	100
	4 - 2.5	<b>1630C4</b>	5.0	6.8	2.3	4.3	12.0	0.8	0.080	100
	5 - 2.5	<b>1630C5</b>	5.0	10.0	2.3	5.3	14.0	0.8	0.090	100
	6 - 2.5	<b>1630C6</b>	5.0	11.0	2.3	6.5	16.0	0.8	0.110	100
4 - 6	4 - 6	<b>1650C4</b>	6.0	8.0	3.6	4.3	14.0	1.0	0.140	100
	5 - 6	<b>1650C5</b>	6.0	10.0	3.6	5.3	15.0	1.0	0.160	100
	6 - 6	<b>1650C6</b>	6.0	11.0	3.6	6.5	16.0	1.0	0.170	100
	8 - 6	<b>1650C8</b>	6.0	14.0	3.6	8.4	19.0	1.0	0.220	100
10	5 - 10	<b>1652C5</b>	10.0	10.0	4.3	5.3	19.0	1.0	0.240	100
	6 - 10	<b>1652C6</b>	10.0	11.0	4.3	6.4	21.0	1.0	0.260	100
16	6 - 16	<b>1653C6</b>	11.5	11.0	5.8	6.4	24.0	1.0	0.350	100





## Pin terminals to DIN, Cu



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ Nominal cross-sections 0.5 - 6 mm<sup>2</sup> to DIN 46230
- ▶ High-quality brazing process in the crimp area

### Characteristics

- Improved contact properties due to grooved profile

### Material

- Copper (ETP)

### Surface

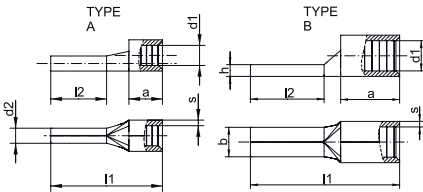
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 82

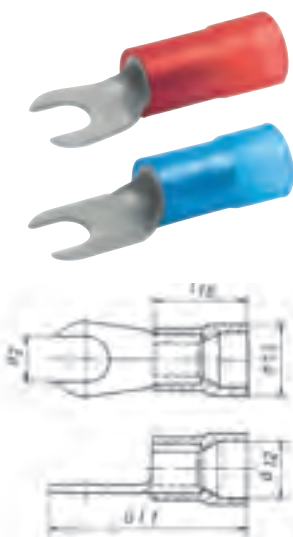
### Additional information

- \* = not standardised
- 0.5 - 6 mm<sup>2</sup> not UL-tested



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Typ	Hint	Dimension mm								Weight 100 pcs. ~kg	Packing unit/pcs
					a	b	d1	d2	l1	l2	s	h		
0.5 - 1	1	ST1705	A		5.0	--	1.8	1.9	17.0	10	0.8	--	0.060	100
1.5 - 2.5	2.5	ST1710	A		5.0	--	2.3	1.9	17.0	10	0.8	--	0.072	100
4 - 6	6	ST1715	A		6.0	--	3.6	2.7	20.0	11	1.0	--	0.160	100
10	--	ST1716	B	*	10.0	4.3	4.3	--	24.5	11	1.0	2.0	0.270	100
16	--	ST1717	B	*	11.5	5.8	5.4	--	29.5	15	1.0	2.0	0.390	100
25	--	ST1718	B	*	13.5	6.8	6.7	--	33.5	15	1.2	2.4	0.630	100
35	--	ST1719	B	*	16.0	8.0	8.2	--	40.5	20	1.5	3.2	1.170	50
50	--	ST1720	B	*	19.0	9.5	9.5	--	45.0	20	1.8	3.6	1.790	50
70	--	ST1721	B	*	24.0	11.0	11.2	--	55.0	23	2.0	4.0	2.920	50
95	--	ST1722	B	*	24.0	12.5	13.5	--	55.0	23	2.5	5.0	4.300	50

## Insulated solderless terminals for meter connections, Cu, fork type



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ Special design for meter connection
- ▶ High-quality brazing process in the crimp area
- ▶ Fast preparation as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Improved contact properties due to grooved profile
- Cross-section-dependent colour-coding
- Heat resistant to 105° C

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

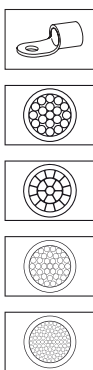
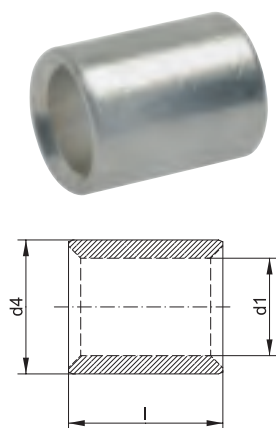
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 84

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm					Gewicht 100 St. ~kg Cu	Gewicht 100 St. ~kg Ges.	Packing unit/ pcs
			d12	d13	d2	Gl1	l10			
10	<b>652C5</b>	Red	7.0	9.6	5.3	33.5	19.0	0.24	0.28	100
	<b>652C6</b>	Red	7.0	9.6	6.4	33.5	19.0	0.26	0.30	100
16	<b>653C6</b>	Blue	8.6	10.6	6.4	37.5	20.5	0.35	0.40	100

## Solderless connectors to DIN, Cu, short type



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ To DIN 46341, Part 1, Form A
- ▶ Ideal for connecting differing conductor cross-sections

### Characteristics

- Simple cable entry due to internal chamfer
- Annealed material optimises material and crimping properties

### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

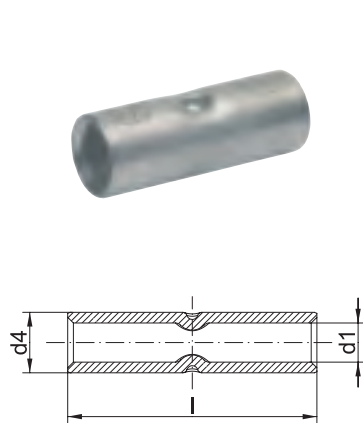
- Tool: see page 82

### Additional information

- The sum of the single conductor cross sections must be within the specified cross section range.

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
			d1	d4	l		
0.5 - 1	1	<b>1620K</b>	1.6	3.2	8	0.045	100
1 - 2.5	2.5	<b>1630K</b>	2.3	3.9	8	0.055	100
2.5 - 6	6	<b>1650K</b>	3.6	5.6	9	0.090	100
6 - 10	10	<b>1652K</b>	4.5	6.7	10	0.170	100
10 - 16	16	<b>1653K</b>	5.8	8.2	11	0.260	100
16 - 25	25	<b>1654K</b>	7.5	10.5	14	0.510	100
25 - 35	35	<b>1655K</b>	9.0	12.2	16	0.730	100
35 - 50	50	<b>1656K</b>	11.0	14.6	19	1.200	100
50 - 70	70	<b>1657K</b>	13.0	17.0	19	1.530	50
70 - 95	95	<b>1658K</b>	15.0	20.0	20	2.370	50
95 - 120	120	<b>1659K</b>	16.5	22.5	22	3.450	50
120 - 150	150	<b>1660K</b>	19.0	25.4	26	5.060	50

## Solderless connectors to DIN, Cu, long type



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 2, 5 and 6
- ▶ To DIN 46341, Part 1, Form B
- ▶ Simple and safe processing due to butt mark



### Characteristics

- Simple cable entry due to internal chamfer
- Annealed material optimises material and crimping properties



### Material

- Copper (EN13600)



### Surface

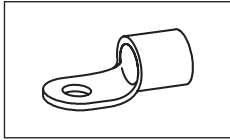
- Tin-plated to protect against corrosion



### Technical instructions

- Tool: see page 82

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
			d1	d4	l		
0.5 - 1	1	<b>1620L</b>	1.6	3.2	15	0.08	100
1.5 - 2.5	2.5	<b>1630L</b>	2.3	3.9	15	0.10	100
4 - 6	6	<b>1650L</b>	3.6	5.6	15	0.19	100
10	10	<b>1652L</b>	4.5	6.7	21	0.36	100
16	16	<b>1653L</b>	5.8	8.2	26	0.62	100
25	25	<b>1654L</b>	7.5	10.5	29	1.11	100
35	35	<b>1655L</b>	9.0	12.2	32	1.50	100
50	50	<b>1656L</b>	11.0	14.6	38	2.44	100
70	70	<b>1657L</b>	13.0	17.0	42	3.54	50
95	95	<b>1658L</b>	15.0	20.0	48	5.87	50
120	120	<b>1659L</b>	16.5	22.5	52	8.46	50
150	150	<b>1660L</b>	19.0	25.4	56	10.86	50

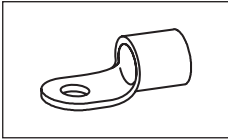


### Tool application chart

**Solderless terminals to DIN 46234, pin terminals to DIN 46230,  
solderless connectors to DIN 46341**  
Part 1 of 2














Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile	
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die		
Mechanical crimping tools	0.5 - 16	K25		230			
	16 - 95	K95		230			
		TK95		231			
Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads	0.5 - 10	K50		244	326		
		EK50ML		254	326		
		K507		243			
	0.75 - 2.5	KP1	+KP232	240			
		KP1L	+KP232	240			
	4 - 10	KP1	+KP242	240			
		KP1L	+KP242	240			
	6 - 35	K354		246	330		
	10 - 70	K18		248	338		
		K22		250	343		
	Hand hydraulic crimping tools	10 - 70	HK6018		292	338	
			HK60UNV	+UA18	473	338	
HK6022				294	343		
HK60UNV			+UA22	473	343		
16 - 150		HK12030		298	349		
		HK12042		300	349		
		HK120U		302	349		
Battery powered crimping tools	0.5 - 10	EK1550ML		258	326		
	6 - 35	EK354ML		262	330		
		EK354		266	330		
	10 - 50	EK505		268	334		
	10 - 70	EK5018		270	338		
		EK60UNV	+UA18	476	338		
		EKM60UNV	+UA18	475	338		
		EK6022		247	343		
		EKM6022		272	343		
		EK60UNV	+UA22	476	343		
		EKM60UNV	+UA22	475	343		
	10 - 240	EKM60ID		278			
	16 - 150	EK12032		280	349		
		EK12042		282	349		
		EK120U		284	349		
EK135FT		+UA15T	286	349			
EK120UNV		+UA12T	477	349			
35 - 240	EK120ID		279				

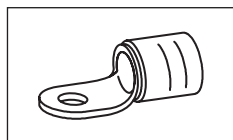
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## Tool application chart

Solderless terminals to DIN 46234, pin terminals to DIN 46230,  
solderless connectors to DIN 46341  
Part 2 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Hydraulic crimping systems	10 - 70	THK18		306	338	
		THK22		308	343	
	16 - 240	HK122EL380		322	349	
		HK252		320	354	
		HK252EL380		323	354	
Hydraulic crimping heads	10 - 70	PK18		306	338	
		PK60UNV	+UA18	474	338	
		PK22		308	343	
		PK60UNV	+UA22	474	343	
	10 - 240	PK60ID		311		
	16 - 150	PK12042		312	349	
		PK120U		314	349	
	16 - 240	PK252		316	354	



## Tool application chart

**Isolierte Quetschkabelschuhe**  
**Isolierte Stiftkabelschuhe**

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
<b>Mechanical crimping tools</b>	<b>10 - 16</b>	K16		223		○
<b>Mechanical, electrical, pneumatic crimping tools with interchangeable dies / heads</b>	<b>10 - 16</b>	K50		244	327	○
		EK50ML		254	327	○
		K354		246	327	○
	<b>10 - 50</b>	K18		248	338	☾
	<b>10 - 70</b>	K22		250	343	☾
<b>Hand hydraulic crimping tools</b>	<b>10 - 50</b>	HK6018		292	338	☾
		HK60UNV	+UA18	473	338	☾
	<b>10 - 70</b>	HK6022		294	343	☾
		HK60UNV	+UA22	473	343	☾
	<b>10 - 95</b>	HK12030		298	349	☾
		HK12042		300	349	☾
HK120U			302	349	☾	
<b>Battery powered crimping tools</b>	<b>10 - 16</b>	EK1550ML		258	327	○
		EK354ML		262	330	☾
		EK354		266	330	☾
	<b>10 - 50</b>	EK5018		270	338	☾
		EK60UNV	+UA18	476	338	☾
		EKM60UNV	+UA18	475	338	☾
	<b>10 - 70</b>	EK6022		274	343	☾
		EKM6022		272	343	☾
		EK60UNV	+UA22	476	343	☾
		EKM60UNV	+UA22	475	343	☾
		<b>10 - 95</b>	EK12032		280	349
		EK12042		282	349	☾
		EK120U		284	349	☾
		EK135FT	+UA15T	286	349	☾
		EK120UNV	+UA12T	477	349	☾
<b>Hydraulic crimping systems</b>	<b>10 - 50</b>	THK18		306	338	☾
	<b>10 - 70</b>	THK22		308	343	☾
	<b>10 - 150</b>	HK252		320	355	☾
<b>Hydraulic crimping heads</b>	<b>10 - 50</b>	PK18		306	338	☾
		PK60UNV	+UA18	474	338	☾
	<b>10 - 70</b>	PK22		308	343	☾
		PK60UNV	+UA22	474	343	☾
	<b>10 - 95</b>	PK12042		312	349	☾
		PK120U		314	349	☾
<b>10 - 150</b>	PK252		316	355	☾	







# COMPENSATING - SLEEVES FOR COPPER SECTOR-SHAPED AND COMPACTED CONDUCTORS

With the right sleeve, copper sector-shaped conductors are easy to crimp all the way round and can then be conveniently inserted into the cable lug. Klauke sleeves for compacted conductors compensate the difference between the compacted conductor and cable lug - ensuring reliable connections.



## In brief

- ▶ For round crimping sector-shaped conductors
- ▶ Brings compacted conductors to the required volume
- ▶ Good conductivity due to high-quality copper
- ▶ Available for DIN and tubular cable lugs



**Note:** The sleeves for sector-shaped conductors must be crimped with pre-rounding dies.

► Filled in two steps

Making it easy for you: Use the Klauke sleeves to bring compacted conductors to the required volume in just two work steps: Simply attach the sleeve to the stripped conductor and insert it into the appropriate cable lug - done.

No additional tools and no special solutions required.

- Simple filling of compacted conductors
- For nominal cross-sections of up to 400 mm<sup>2</sup>
- High-quality material reduces contact resistance
- No special solutions required: existing tool can be used for reliable crimping

► Pre-rounded sector-shaped conductors

Pre-rounds 3- and 4-sector-shaped conductors without special cable lugs - using Klauke sleeves.

- For pre-rounding of sector-shaped conductors
- Suitable for 3- and 4-sector-shaped conductors at angles of 120° and 90°
- Nominal cross-section up to 240 mm<sup>2</sup>
- No splicing of conductors
- No special cable lugs required
- Lower storage costs



► The right sleeve for every cable lug

With Klauke, everything fits together. The diameter and length of the sleeve are adapted to the required cable lug to ensure optimum crimping.

- Reliable crimping in a just a few steps
- Sleeves accurately matched to the Klauke system





### Sleeves for compacted conductors, for tubular cable lugs and connector standard type



- ▶ For multi-stranded, compacted conductors e.g. to DIN EN 60228 Cl. 2
- ▶ Allows the use of Klauke tubular cable lugs and connectors, standard type, on compacted conductors

#### Characteristics

- Annealed material optimises material and crimping properties

#### Material

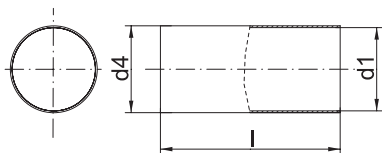
- Copper (HCP)

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-7



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
		d1	d4	l		
16	<b>VHR16</b>	5.0	5.3	11	0.024	100
25	<b>VHR25</b>	6.4	6.7	14	0.038	100
35	<b>VHR35</b>	7.7	8.2	15	0.083	100
50	<b>VHR50</b>	9.0	9.5	18	0.118	50
70	<b>VHR70</b>	10.6	11.2	19	0.173	50
95	<b>VHR95</b>	12.4	13.0	21	0.223	50
120	<b>VHR120</b>	13.9	14.5	22	0.261	50
150	<b>VHR150</b>	15.4	16.0	26	0.342	25
185	<b>VHR185</b>	17.6	18.2	26	0.396	25
240	<b>VHR240</b>	19.9	20.5	30	0.508	25
300	<b>VHR300</b>	22.4	23.0	38	0.723	10
400	<b>VHR400</b>	25.4	26.2	38	1.108	10

## Sleeves for compacted conductors, for tubular cable lugs and connector DIN type



- ▶ For multi-stranded, compacted conductors e.g. to DIN EN 60228 Cl. 2
- ▶ Allows the use of Klauke DIN compression cable lugs and connectors for compacted conductors

### Characteristics

- Annealed material optimises material and crimping properties

### Material

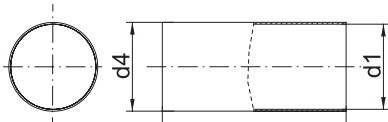
- Copper (HCP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-7



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
		d1	d4	l		
16	<b>VHD16</b>	5.0	5.3	16	0.035	100
25	<b>VHD25</b>	6.4	6.7	16	0.043	100
35	<b>VHD35</b>	7.7	8.2	17	0.094	100
50	<b>VHD50</b>	9.0	9.5	23	0.151	50
70	<b>VHD70</b>	10.6	11.2	24	0.219	50
95	<b>VHD95</b>	12.4	13.0	28	0.298	50
120	<b>VHD120</b>	13.9	14.5	30	0.357	50
150	<b>VHD150</b>	15.4	16.0	30	0.395	25
185	<b>VHD185</b>	17.6	18.2	38	0.579	25
240	<b>VHD240</b>	19.9	20.5	38	0.645	25
300	<b>VHD300</b>	22.4	23.0	48	0.913	5
400	<b>VHD400</b>	25.4	26.2	58	1.692	5



### Sleeves for sector shaped conductors, 3-core cable



- ▶ For multi-stranded, sector shaped conductors, e.g. to DIN EN 60228
- ▶ For tubular cable lugs and connectors, standard version and DIN compression cable lugs and connectors
- ▶ To simplify pre-rounding of 3-core cables (120° angle)
- ▶ Prevents sector shaped conductors from de-stranding during pre-rounding

#### Characteristics

- Annealed material optimises material and crimping properties

#### Material

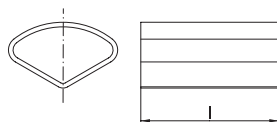
- Copper (HCP)

#### Surface

- Tin-plated to protect against corrosion

#### Technical instructions

- For round crimping dies, see „Crimping dies“
- Refer to the installation instructions in the technical appendix on page i-7



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm für l	Weight 100 pcs. ~kg	Packing unit/pcs
<b>Standard type</b>				
35	<b>VHR353</b>	14	0.08	100
50	<b>VHR503</b>	17	0.17	50
70	<b>VHR703</b>	18	0.29	50
95	<b>VHR953</b>	22	0.45	50
120	<b>VHR1203</b>	23	0.49	50
150	<b>VHR1503</b>	25	0.58	25
185	<b>VHR1853</b>	25	0.80	25
240	<b>VHR2403</b>	30	1.04	25
<b>DIN version</b>				
35	<b>VHD353</b>	17,5	0.11	100
50	<b>VHD503</b>	25,0	0.26	50
70	<b>VHD703</b>	25,0	0.39	50
95	<b>VHD953</b>	32,0	0.66	50
120	<b>VHD1203</b>	32,0	0.68	50
150	<b>VHD1503</b>	32,0	0.74	25
185	<b>VHD1853</b>	35,0	1.13	25
240	<b>VHD2403</b>	35,0	1.22	25



## Sleeves for sector shaped conductors, 4-core cable



- ▶ For multi-stranded, sector shaped conductors, e.g. to DIN EN 60228
- ▶ For tubular cable lugs and connectors, standard version and DIN compression cable lugs and connectors
- ▶ To simplify pre-rounding of 4-core cables (90° angle)
- ▶ Prevents sector shaped conductors from de-stranding during pre-rounding

### Characteristics

- Annealed material optimises material and crimping properties

### Material

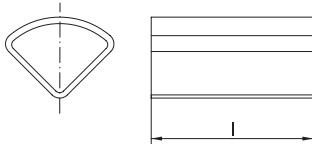
- Copper (HCP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-7
- For round crimping dies, see „Crimping dies“



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm für l	Weight 100 pcs. ~kg	Packing unit/pcs
<b>Standard type</b>				
35	<b>VHR354</b>	14	0.13	100
50	<b>VHR504</b>	17	0.17	50
70	<b>VHR704</b>	18	0.28	50
95	<b>VHR954</b>	22	0.40	50
120	<b>VHR1204</b>	23	0.51	50
150	<b>VHR1504</b>	25	0.57	25
185	<b>VHR1854</b>	25	0.78	25
240	<b>VHR2404</b>	30	0.85	25
<b>DIN version</b>				
35	<b>VHD354</b>	17.5	0.11	100
50	<b>VHD504</b>	25.0	0.25	50
70	<b>VHD704</b>	25.0	0.38	50
95	<b>VHD954</b>	32.0	0.63	50
120	<b>VHD1204</b>	32.0	0.71	50
150	<b>VHD1504</b>	32.0	0.73	25
185	<b>VHD1854</b>	35.0	1.09	25
240	<b>VHD2404</b>	35.0	1.13	25



# RELIABLE - ALUMINIUM COMPRESSION CABLE LUGS AND CONNECTORS TO DIN

Light and extremely reliable: Klauke aluminium compression cable lugs are both. Contact grease breaks down the oxidation layer, high-quality tinning facilitates the contact with copper in dry environments. For the toughest demands, all cable lugs and most connectors are IEC-tested for safety. We offer a solution for practically every problem.



## In brief

- ▶ Aluminium cable lugs and connectors according to and based on DIN standards
- ▶ Tested to the stringent IEC 61238-1
- ▶ Appropriate solutions to 30 kV
- ▶ Also for power lines and conductor wires
- ▶ Tinned and non-tinned versions available



## ▶ Deep drawn

Deep-drawn connectors are produced with barrier and precisely to DIN 46329. Thanks to the special production method, there is absolutely no ingress or escaping of liquids through the cable lug flange.

- Barrier design with oil stop
- Filled with contact grease as standard
- In the tinned version, also suitable for connecting to copper in dry environments
- For moist environments, we recommend Klauke connectors made from aluminium/copper

## ▶ Same excellent quality

Because we at Klauke have our own manufacturing facilities, our products are always the same consistently high quality. No matter which cable lug or connector you need, the Klauke system guarantees you the best results.

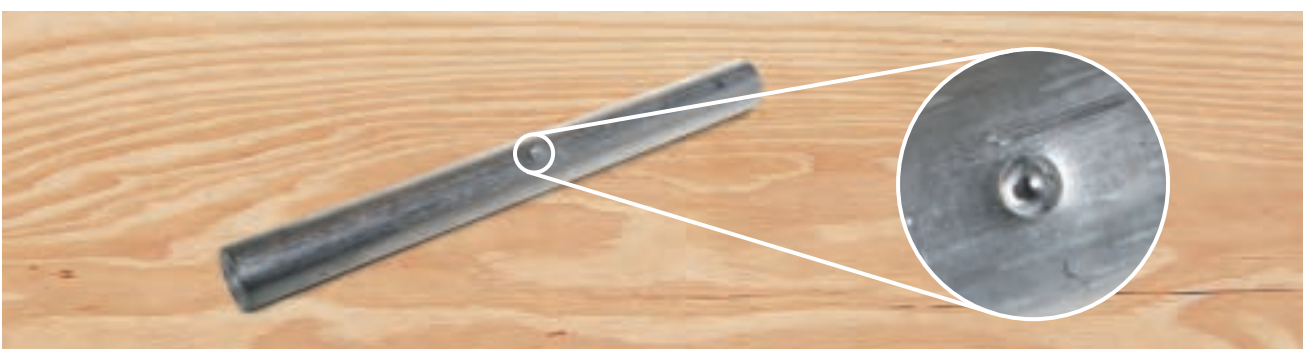
- Constant qualities in many forms
- Connections according to or based on DIN standards
- Simple processing with DIN hexagonal crimping or optionally EKM60ID
- Guaranteed safety through IEC 61238-1 tests



## ▶ Flexibility in power line construction

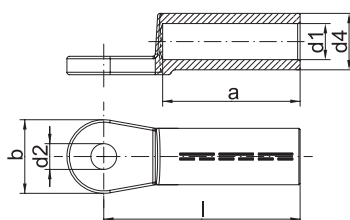
In power line construction too, Klauke products provide the flexible and reliable solution.

For special solutions, contact us directly. We can make them for you.





### Compression cable lugs to DIN, Al



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ To DIN 46329
- ▶ With code number for clear tool assignment for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Barrier design with oil stop
- Optional tin-plated (20 µm) version to connect copper bus bars in dry indoor areas
- Simple and safe connection due to flat contact surfaces and internal chamfer
- Unique tool assignment due to DIN die coding

#### Material

- E-aluminium

#### Surface

- Bright

#### Technical instructions

- Tool: see page 103

#### Additional information

- Part Number appendix for tinned version „V“
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded
- 70 - 240 mm<sup>2</sup> UL-tested
- \* = not standardised

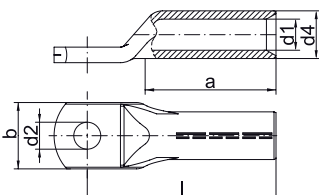
Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Hint	Code	Dimension mm						Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
		rm/sm	re/se			a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)		
M 8	<b>263R8</b>	16	25	*	12	30	20	5.8	8.4	12	50	4	2	1.20	4
M 10	<b>263R10</b>	16	25	*	12	30	20	5.8	10.5	12	50	4	2	1.20	4
M 8	<b>264R8</b>	25	35		12	30	25	6.8	8.4	12	50	4	2	1.30	4
M 10	<b>264R10</b>	25	35		12	30	25	6.8	10.5	12	50	4	2	1.24	4
M 12	<b>264R12</b>	25	35		12	30	25	6.8	13.0	12	50	4	2	1.22	4
M 8	<b>265R8</b>	35	50		14	42	25	8.0	8.4	14	62	5	2	2.50	4
M 10	<b>265R10</b>	35	50		14	42	25	8.0	10.5	14	62	5	2	1.98	4
M 12	<b>265R12</b>	35	50		14	42	25	8.0	13.0	14	62	5	2	2.50	4
M 8	<b>266R8</b>	50	70		16	42	25	9.8	8.4	16	62	5	2	2.75	4
M 10	<b>266R10</b>	50	70		16	42	25	9.8	10.5	16	62	5	2	2.70	4
M 12	<b>266R12</b>	50	70		16	42	25	9.8	13.0	16	62	5	2	2.65	4
M 8	<b>267R8</b>	70	95		18	52	25	11.2	8.4	18.5	72	6	3	3.45	4
M 10	<b>267R10</b>	70	95		18	52	25	11.2	10.5	18.5	72	6	3	3.80	4
M 12	<b>267R12</b>	70	95		18	52	25	11.2	13.0	18.5	72	6	3	3.35	4
M 10	<b>268R10</b>	95	120		22	56	25	13.2	10.5	22	75	6	3	6.90	4
M 12	<b>268R12</b>	95	120		22	56	25	13.2	13.0	22	75	6	3	4.92	4
M 16	<b>268R16</b>	95	120	*	22	56	25	13.2	17.0	22	75	6	3	6.00	4
M 10	<b>269R10</b>	120	150		22	56	30	14.7	10.5	23	80	6	3	5.95	4
M 12	<b>269R12</b>	120	150		22	56	30	14.7	13.0	23	80	6	3	5.84	4
M 16	<b>269R16</b>	120	150		22	56	30	14.7	17.0	23	80	6	3	6.60	4
M 10	<b>270R10</b>	150	185		25	60	30	16.3	10.5	25	90	6	3	8.50	4

## Compression cable lugs to DIN, Al

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Hint	Code	Dimension mm						Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
		rm/sm	re/se			a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)		
M 12	<b>270R12</b>	150	185		25	60	30	16.3	13.0	25	90	6	3	7.73	4
M 16	<b>270R16</b>	150	185		25	60	30	16.3	17.0	25	90	6	3	7.60	4
M 20	<b>270R20</b>	150	185	*	25	60	30	16.3	21.0	25	90	6	3	8.20	4
M 10	<b>271R10</b>	185	240		28	60	30	18.3	10.5	28.5	91	6	3	11.00	4
M 12	<b>271R12</b>	185	240		28	60	30	18.3	13.0	28.5	91	6	3	9.88	4
M 16	<b>271R16</b>	185	240		28	60	30	18.3	17.0	28.5	91	6	3	10.10	4
M 20	<b>271R20</b>	185	240	*	28	60	30	18.3	21.0	28.5	91	6	3	10.00	4
M 10	<b>272R10</b>	240	300	*	32	70	38	21.0	10.5	32	103	8	3	15.50	4
M 12	<b>272R12</b>	240	300		32	70	38	21.0	13.0	32	103	8	3	13.80	4
M 16	<b>272R16</b>	240	300		32	70	38	21.0	17.0	32	103	8	3	13.48	4
M 20	<b>272R20</b>	240	300		32	70	38	21.0	21.0	32	103	8	3	15.00	4
M 12	<b>273R12</b>	300	--		34	70	38	23.3	13.0	34	103	8	3	17.60	1
M 16	<b>273R16</b>	300	--		34	70	38	23.3	17.0	34	103	8	3	17.28	1
M 20	<b>273R20</b>	300	--		34	70	38	23.3	21.0	34	103	8	3	17.40	1
M 12	<b>274R12</b>	400	--		38	73	38	26.0	13.0	38.5	116	--	4	38.00	1
M 16	<b>274R16</b>	400	--		38	73	38	26.0	17.0	38.5	116	--	4	37.40	1
M 20	<b>274R20</b>	400	--		38	73	38	26.0	21.0	38.5	116	--	4	40.20	1
M 12	<b>275R12</b>	500	--		44	79	44	29.0	13.0	44	122	--	4	43.70	1
M 16	<b>275R16</b>	500	--		44	79	44	29.0	17.0	44	122	--	4	43.30	1
M 20	<b>275R20</b>	500	--		44	79	44	29.0	21.0	44	122	--	4	43.00	1



### Compression cable lugs, Al



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46329
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Easy to process due to crimp markings
- Simple and safe connection due to flat contact surfaces and internal chamfer

#### Material

- E-aluminium

#### Surface

- Bright

#### Technical instructions

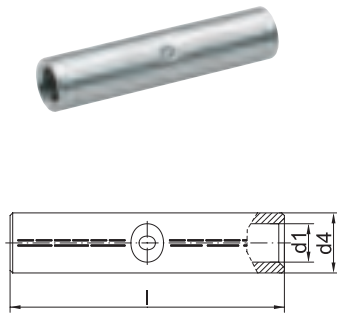
- Tool: see page 103

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded
- 16 - 400 mm<sup>2</sup> IEC-tested

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)		
M 6	<b>202R6</b>	10	25	10	32	16	5.0	6.5	10	52	4	2	0.86	25
M 8	<b>202R8</b>	10	25	10	32	18	5.0	8.5	10	52	4	2	0.88	25
	<b>203R8</b>	16	25	12	32	18	5.8	8.5	12	52	4	2	1.37	10
M 10	<b>203R10</b>	16	25	12	32	18	5.8	10.5	12	52	4	2	1.39	10
M 8	<b>204R8</b>	25	35	12	38	18	6.8	8.5	12	60	4	2	1.41	10
M 10	<b>204R10</b>	25	35	12	38	18	6.8	10.5	12	60	4	2	1.46	10
	<b>205R10</b>	35	50	14	42	21	8.0	10.5	14	67	5	2	2.08	10
M 12	<b>205R12</b>	35	50	14	42	21	8.0	13.0	14	67	5	2	2.05	10
M 10	<b>206R10</b>	50	70	16	45	25	9.8	10.5	16	72	5	2	2.68	10
M 12	<b>206R12</b>	50	70	16	45	25	9.8	13.0	16	72	5	2	2.73	10
M 10	<b>207R10</b>	70	95	18	55	28	11.2	10.5	18.5	86	6	3	4.42	10
M 12	<b>207R12</b>	70	95	18	55	28	11.2	13.0	18.5	86	6	3	4.27	10
M 10	<b>208R10</b>	95	120	22	55	32	13.2	10.5	22	90	6	3	7.40	4
M 12	<b>208R12</b>	95	120	22	55	32	13.2	13.0	22	90	6	3	7.50	4
M 16	<b>208R16</b>	95	120	22	55	34	13.2	17.0	22	90	6	3	7.30	4
M 12	<b>209R12</b>	120	150	22	55	32	14.7	13.0	23	91	6	3	6.68	4
M 16	<b>209R16</b>	120	150	22	55	34	14.7	17.0	23	91	6	3	6.41	4
M 12	<b>210R12</b>	150	185	25	63	35	16.3	13.0	25	103	6	3	9.64	4
M 16	<b>210R16</b>	150	185	25	63	35	16.3	17.0	25	103	6	3	9.24	4
M 20	<b>210R20</b>	150	185	25	63	41	16.3	21.0	25	103	6	3	9.40	4
M 12	<b>211R12</b>	185	240	28	65	40	18.3	13.0	28	106	6	3	12.61	1
M 16	<b>211R16</b>	185	240	28	65	40	18.3	17.0	28	106	6	3	11.92	1
M 20	<b>211R20</b>	185	240	28	65	40	18.3	21.0	28	106	6	3	13.10	1
M 12	<b>212R12</b>	240	300	32	70	45	21.0	13.0	32	116	8	3	18.30	1
M 16	<b>212R16</b>	240	300	32	70	45	21.0	17.0	32	116	8	3	17.60	1
M 20	<b>212R20</b>	240	300	32	70	45	21.0	21.0	32	116	8	3	17.30	1
M 16	<b>213R16</b>	300	--	34	75	49	23.3	17.0	34	124	8	3	17.50	1
M 20	<b>213R20</b>	300	--	34	75	49	23.3	21.0	34	124	8	3	17.30	1
M 16	<b>214R16</b>	400	--	38	95	58	26.0	17.0	38.5	165	--	4	32.20	1
M 20	<b>214R20</b>	400	--	38	95	58	26.0	21.0	38.5	165	--	4	31.90	1

## Compression joint to DIN, Al



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ To DIN 46267, Part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics
- ▶ For pre-rounded sector shaped conductors

### Characteristics

- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer
- Simple and safe processing due to butt mark

### Material

- E-aluminium

### Surface

- Bright

### Technical instructions

- Tool: see page 103

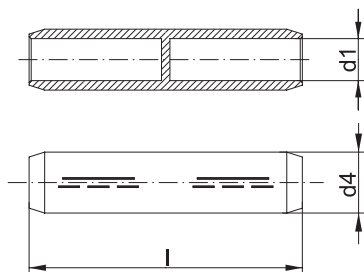
### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded
- 16 - 500 mm<sup>2</sup> IEC-tested
- \* = not standardised

Part No.	Nominal cross section mm <sup>2</sup>		Hint	Code	Dimension mm			Number of crimps		Weight 100 pcs. ~kg	Packing unit/ pcs
	rm/sm	re/se			d1	d4	l	Al (7 mm)	Al (wide)		
222R	10	16	*	10	5.0	10	55	3/3	--	0.95	10
223R	16	25	*	12	5.8	12	55	3/3	--	1.40	10
224R	25	35		12	6.8	12	70	4/4	2/2	1.60	10
225R	35	50		14	8.0	14	85	5/5	2/2	2.60	10
226R	50	70		16	9.8	16	85	5/5	2/2	3.20	10
227R	70	95		18	11.2	18.5	105	6/6	3/3	5.30	10
228R	95	120		22	13.2	22	105	6/6	3/3	7.60	10
229R	120	150		22	14.7	23	105	6/6	3/3	7.80	10
230R	150	185		25	16.3	25	125	6/6	3/3	10.70	10
231R	185	240		28	18.3	28.5	125	6/6	3/3	14.30	5
232R	240	300		32	21.0	32	145	8/8	3/3	20.30	5
233R	300	--		34	23.3	34	145	8/8	3/3	22.20	1
234R	400	--		38	26.0	38	210	--	5/5	40.80	1
235R	500	--		44	29.0	44	210	--	5/5	56.00	1



### Compression joints, Al



- ▶ For non-tension connections of medium-voltage aluminium cable 10-30 kV
- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182 and pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46267, Part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Also available as barrier design with oil stop
- With chamfered edges for reduced wrapping during assembly
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

#### Material

- E-aluminium

#### Surface

- Bright

#### Technical instructions

- Tool: see page 103

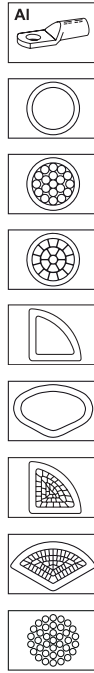
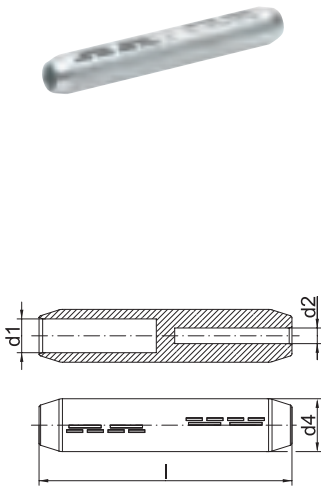
#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm			Number of crimps		Weight 100 pcs. ~kg	Packing unit/ pcs
	rm/sm	re/se		d1	d4	l	Al (7 mm)	Al (wide)		
Standard type										
405R	35	50	14	8.2	14	90	4/4	2/2	2.7	10
406R	50	70	16	10.0	16	90	4/4	2/2	3.4	10
407R	70	95	18	11.5	18.5	95	4/4	2/2	4.6	10
408R	95	120	22	13.5	22	100	4/4	2/2	6.8	10
409R	120	150	22	15.0	23	105	4/4	2/2	7.4	10
410R	150	185	25	16.5	25	105	4/4	2/2	8.7	10
411R	185	240	28	18.5	28.5	125	5/5	2/2	13.4	5
412R	240	300	32	21.3	32	125	5/5	2/2	15.7	5
413R	300	--	34	23.6	34	125	5/5	2/2	16.3	1
414R	400	--	38	26.25	38	150	--	3/3	25.8	1
Barrier version										
415R	35	50	14	8.0	14	95	4/4	2/2	3.1	5
416R	50	70	16	9.8	16	95	4/4	2/2	5.6	5
417R	70	95	18	11.2	18.5	100	4/4	2/2	6.1	5
418R	95	120	22	13.2	22	105	4/4	2/2	9.2	5
419R	120	150	22	14.7	23	110	4/4	2/2	10.3	5
420R	150	185	25	16.3	25	110	4/4	2/2	12.0	5
421R	185	240	28	18.3	28.5	130	5/5	2/2	15.6	5
422R	240	300	32	21.0	32	130	5/5	2/2	19.1	5
423R	300	--	34	23.3	34	135	5/5	2/2	30.7	1
424R	400	--	38	26.0	38	165	--	3/3	30.0	1



## Reduction compression joints, Al, barrier type



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ In nominal cross-section area tube dimension to DIN 46267, part 2
- ▶ For pre-rounded sector shaped conductors
- ▶ Ideal for connecting differing conductor cross-sections
- ▶ Filled with contact grease for optimum crimp characteristics

### Characteristics

- Barrier design with oil stop
- Unique tool assignment due to DIN die coding
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium

### Surface

- Bright

### Technical instructions

- Tools: see chart page 103

### Additional information

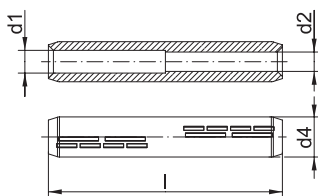
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>				Code	Dimension mm				Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
	re/se from	rm/sm from	re/se to	rm/sm to		d1	d2	d4	l	Al (7 mm)	Al (wide)		
425R25	50	35	35	25	14	8.0	6.8	14	95	4/4	2/2	2.8	5
426R35	70	50	50	35	16	9.8	8.0	16	95	4/4	2/2	3.45	5
427R35	95	70	50	35	18	11.2	8.0	18.5	100	4/4	2/2	4.79	5
427R50	95	70	70	50	18	11.2	9.8	18.5	100	4/4	2/2	4.42	5
428R50	120	95	70	50	22	13.2	9.8	22	105	4/4	2/2	7.60	5
428R70	120	95	95	70	22	13.2	11.2	22	105	4/4	2/2	7.35	5
429R70	150	120	95	70	22	14.7	11.2	23	110	4/4	2/2	7.10	5
429R95	150	120	120	95	22	14.7	13.2	23	110	4/4	2/2	6.55	5
430R70	185	150	95	70	25	16.3	11.2	25	110	4/4	2/2	9.80	5
430R95	185	150	120	95	25	16.3	13.2	25	110	4/4	2/2	9.50	5
430R120	185	150	150	120	25	16.3	14.7	25	110	4/4	2/2	8.65	5
431R70	240	185	95	70	28	18.3	11.2	28.5	130	--	2/2	15.05	5
431R95	240	185	120	95	28	18.3	13.2	28.5	130	--	2/2	14.40	5
431R120	240	185	150	120	28	18.3	14.7	28.5	130	5/5	2/2	13.70	5
431R150	240	185	185	150	28	18.3	16.3	28.5	130	5/5	2/2	13.05	5
432R120	300	240	150	120	32	21.0	14.7	32	130	--	2/2	18.80	5
432R150	300	240	185	150	32	21.0	16.3	32	130	5/5	2/2	18.125	5
432R185	300	240	240	185	32	21.0	18.3	32	130	5/5	2/2	17.275	5
433R150	-	300	185	150	34	23.3	16.3	34	135	5/5	2/2	21.10	1
433R185	-	300	240	185	34	23.3	18.3	34	135	5/5	2/2	20.12	1
433R240	-	300	300	240	34	23.3	21.0	34	135	5/5	2/2	18.73	1
434R300	-	400	-	300	38	26.0	23.3	34	165	--	3/3	31.20	1





### Reduction-compression joints, Al



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ In nominal cross-section area tube dimension to DIN 46267, part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- For connecting different conductor cross-sections
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

#### Material

- E-aluminium

#### Surface

- Bright

#### Technical instructions

- Tool: see page 103

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>				Code	Dimension mm				Number of crimps		Weight 100 pcs. ~kg	Packing unit/pcs
	re/se from	rm/sm from	re/se to	rm/sm to		d1	d2	d4	l	Al (7 mm)	Al (wide)		
284R16	35	25	25	16	12	7.0	5.8	12	75	4/4	2/2	1.53	10
285R25	50	35	35	25	14	8.2	6.8	14	90	5/5	2/2	2.50	10
286R25	70	50	35	25	16	10.0	6.8	16	90	5/5	2/2	3.24	10
286R35	70	50	50	35	16	10.0	8.0	16	90	5/5	2/2	3.09	10
287R25	95	70	35	25	18	11.5	6.8	18.5	110	6/6	3/3	5.50	10
287R35	95	70	50	35	18	11.5	8.0	18.5	110	6/6	3/3	5.35	10
287R50	95	70	70	50	18	11.5	9.8	18.5	110	6/6	3/3	4.96	10
288R25	120	95	35	25	22	13.5	6.8	22	110	6/6	3/3	9.10	10
288R35	120	95	50	35	22	13.5	8.0	22	110	6/6	3/3	8.90	10
288R50	120	95	70	50	22	13.5	9.8	22	110	6/6	3/3	8.51	10
288R70	120	95	95	70	22	13.5	11.2	22	110	6/6	3/3	8.15	10
289R50	150	120	70	50	22	15.0	9.8	23	110	6/6	3/3	8.04	10
289R70	150	120	95	70	22	15.0	11.2	23	110	6/6	3/3	7.66	10
289R95	150	120	120	95	22	15.0	13.2	23	110	6/6	3/3	7.14	10
290R70	185	150	95	70	25	16.5	11.2	25	130	6/6	3/3	11.70	10
290R95	185	150	120	95	25	16.5	13.2	25	130	6/6	3/3	11.05	10
290R120	185	150	150	120	25	16.5	14.7	25	130	6/6	3/3	10.49	10
291R120	240	185	150	120	28	18.5	14.7	28.5	130	6/6	3/3	13.80	5
291R150	240	185	185	150	28	18.5	16.3	28.5	130	6/6	3/3	13.19	5
292R95	300	240	120	95	32	21.3	13.2	32	150	--	3/3	22.24	5
292R120	300	240	150	120	32	21.3	14.7	32	150	--	3/3	21.59	5
292R150	300	240	185	150	32	21.3	16.3	32	150	--	3/3	20.87	5



## Compression joint to DIN, Al, full tension



- ▶ For full tension connections of aluminium cables to DIN EN 50182
- ▶ To DIN 48085, Part 2
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

### Characteristics

- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium to 95 mm<sup>2</sup>
- AlMgSi from 120 mm<sup>2</sup>

### Surface

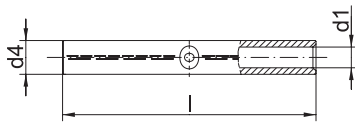
- Bright

### Technical instructions

- Tool: see page 103

### Additional information

- \* = not standardised



Nominal cross section mm <sup>2</sup>	Part No.	Hint	Code	Dimension mm			Number of crimps		Conductor mm dia.	Weight 100 pcs. ~kg	Packing unit/pcs
				d1	d4	l	Al (7 mm)	Al (wide)			
16	<b>243R</b>	*	12	5.8	12.0	140	8/8	4/4	5.1	3.4	10
25	<b>244R</b>		12	6.8	12.0	140	8/8	4/4	6.3	2.9	10
35	<b>245R</b>		14	8.0	14.0	140	8/8	4/4	7.5	3.9	10
50	<b>246R</b>		16	10.0	16.0	155	8/8	4/4	9.0	5.2	10
70	<b>247R</b>		18	11.5	18.5	165	8/8	4/4	10.5	7.4	10
95	<b>248R</b>		22	13.5	22.0	165	8/8	4/4	12.5	12.2	10
120	<b>249R</b>		25	15.5	25.5	250	12/12	6/6	14.0	21.8	10
150	<b>250R</b>		28	16.5	28.5	300	--	7/7	15.7	34.4	10
185	<b>251R</b>		28	18.5	28.5	330	--	7/7	17.5	33.0	5
240	<b>252R</b>		34	21.5	34.5	350	--	7/7	20.2	54.0	5
300	<b>253R</b>		38	23.5	38.5	400	--	8/8	22.5	79.0	1



### Compression joints, Al, full tension



- ▶ For full tension connections of Aldrey cables according to DIN EN 50182
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Tube diameters adjusted to Aldrey cables
- Easy to process due to crimp markings

#### Material

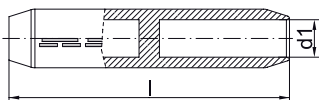
- AlMgSi F20

#### Surface

- Bright

#### Technical instructions

- Tool: see page 104



Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm		Number of crimps		Conductor mm dia.	Weight 100 pcs. ~kg	Packing unit/ pcs
			d1	l	Aldrey (7 mm)	Aldrey (wide)			
35	<b>295AD</b>	14	8.0	140	8/8	--	7.5	4.7	5
50	<b>296AD</b>	16	10.0	155	8/8	--	9.0	5.9	5
70	<b>297AD</b>	18	11.5	165	8/8	--	10.5	9.0	5

### Compression joint to DIN, Al/St



- ▶ For full tension connections of Al/St conductors to DIN EN 50182
- ▶ To DIN 48085, Part 3
- ▶ Unique tool assignment due to coding
- ▶ Filled with contact grease for optimum crimp characteristics

#### Characteristics

- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

#### Material

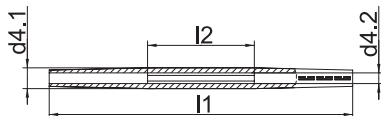
- Sleeve: E-aluminium
- Sleeve: Steel (St 52)

#### Surface

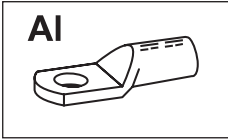
- Al sleeve: bright
- St sleeve: hot zinc galvanised

#### Technical instructions

- Tool: see page 105



Nominal cross section mm <sup>2</sup>	Part No.	Code	Dimension mm				Code Al	Number of crimps				Conductor mm dia.	Weight 100 pcs. ~kg	Packing unit/ pcs
			d41	d42	l1	l2		Stahl (5 mm)	Stahl (wide)	Al (7 mm)	Al (wide)			
35 - 6	<b>455R</b>	6	14.0	6.3	235	75	14	5/5	--	8/8	--	8.1	7	5
50 - 8	<b>456R</b>	7	16.0	7.5	270	95	16	6/6	--	9/9	--	9.6	11	5
70 - 12	<b>457R</b>	9	18.5	9.5	270	95	18	6/6	--	9/9	--	11.7	15	5
95 - 15	<b>458R</b>	9	22.5	9.6	310	95	22	6/6	--	11/11	--	13.6	23	5
120 - 20	<b>459R</b>	13	25.0	13.0	380	110	25	7/7	4/4	13/13	6/6	15.5	36	5



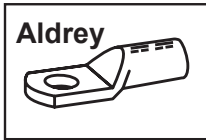
## Tool application chart

### Compression cable lugs and connectors made from E-AI

#### Compression cable lugs for full-tension connections from AI conductors DIN EN 50182, 16 - 95 mm<sup>2</sup>

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	10 - 70	K354		246	331	⊕
	10 - 185	K18		248	339	⊕
	10 - 240	K22		250	344	⊕
Hand hydraulic crimping tools	10 - 185	HK6018		292	339	⊕
		HK60UNV	+UA18	473	339	⊕
	10 - 300	HK6022		294	344	⊕
		HK60UNV	+UA22	473	344	⊕
		HK12030		298	350	⊕
		HK12042		300	350	⊕
	150 - 500	HK120U		302	350	⊕
150 - 500	HK45		321	358	⊕	
Battery powered crimping tools	10 - 70	EK354ML		262	331	⊕
		EK354		266	331	⊕
	10 - 150	EK505		268	335	⊕
	10 - 185	EK5018		270	339	⊕
		EK60UNV	+UA18	476	339	⊕
		EKM60UNV	+UA18	475	339	⊕
	10 - 300	EK6022		274	344	⊕
		EKM6022		272	344	⊕
	50 - 240	EKM60ID*		278		⊕
		EK60UNV	+UA22	476	344	⊕
		EKM60UNV	+UA22	475	344	⊕
		EK120UNV		477	350	⊕
		EK12032		280	350	⊕
		EK12042		282	350	⊕
		EK120U	+UA15T	284	350	⊕
	EK135FT	+UA12T	286	350	⊕	
Hydraulic crimping systems	10 - 185	THK18		306	339	⊕
	10 - 300	THK22		308	344	⊕
		HK122EL380		322	350	⊕
	10 - 500	HK252		320	355	⊕
		HK252EL380		323	355	⊕
Hydraulic crimping heads	10 - 185	PK18		306	339	⊕
		PK60UNV	+UA18	474	339	⊕
	10 - 300	PK22		308	344	⊕
		PK60UNV	+UA22	474	344	⊕
		PK12042		312	350	⊕
	PK120U		314	350	⊕	
	10 - 500	PK252		316	355	⊕
	50 - 240	PK60ID*		311		⊕
	150 - 500	PK45		318	358	⊕

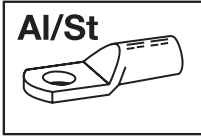
\* Not suitable for full-tension connections



### Tool application chart

Compression joints for full-tension connections from Aldrey conductors to DIN EN 50182 and Al conductors to DIN EN 50182, 120-300 mm<sup>2</sup>

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	6 - 25	EK50ML		254	326	⬡
		K50		244	326	⬡
	25 - 50	K354		246	331	⬡
	25 - 95	K18		248	339	⬡
	25 - 185	K22		250	344	⬡
Hand hydraulic crimping tools	25 - 95	HK6018		292	339	⬡
		HK60UNV	+UA18	473	339	⬡
	25 - 185	HK6022		294	344	⬡
		HK60UNV	+UA22	473	344	⬡
		HK12030		298	350	⬡
		HK12042		300	350	⬡
	HK120U		302	350	⬡	
	150 - 300	HK45		321	358	⬡
Battery powered crimping tools	6 - 25	EK1550ML		258	326	⬡
		25 - 50	EK354ML		262	331
	25 - 95	EK354		266	331	⬡
		EK505		268	335	⬡
		EK5018		270	339	⬡
	25 - 185	EK60UNV	+UA18	476	339	⬡
		EKM60UNV	+UA18	475	339	⬡
		EK6022		274	344	⬡
		EKM6022		272	344	⬡
		EK60UNV	+UA22	476	344	⬡
		EKM60UNV	+UA22	475	344	⬡
		EK12032		280	350	⬡
		EK12042		282	350	⬡
	EK120U		284	350	⬡	
	EK135FT	+UA15T	286	350	⬡	
	EK120UNV	+UA12T	477	350	⬡	
Hydraulic crimping systems	25 - 95	THK18		306	339	⬡
	25 - 185	THK22		308	344	⬡
		HK122EL380		322	350	⬡
	25 - 300	HK252		320	355	⬡
		HK252EL380		323	355	⬡
Hydraulic crimping heads	25 - 95	PK18		306	339	⬡
		PK60UNV	+UA18	474	339	⬡
	25 - 185	PK22		308	344	⬡
		PK60UNV	+UA22	474	344	⬡
		PK12042		312	350	⬡
		PK120U		314	350	⬡
	25 - 300	PK252		316	355	⬡
	150 - 300	PK45		318	358	⬡



## Tool application chart

Compression joints for non-tension connections from Al/St. cables and full-tension connections to DIN 48085, part 3 for Al/St. cables to DIN EN 50182

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	25/4 - 120/20	K22		250	345	⬡
Hand hydraulic crimping tools	25/4 - 120/20	HK6022		294	345	⬡
		HK60UNV	+UA22	473	345	⬡
		HK12030		298	350	⬡
		HK12042		300	350	⬡
		HK120U		302	350	⬡
Battery powered crimping tools	25/4 - 120/20	EK6022		274	345	⬡
		EKM6022		272	345	⬡
		EK60UNV	+UA22	476	345	⬡
		EKM60UNV	+UA22	475	345	⬡
		EK12032		280	350	⬡
		EK12042		282	350	⬡
		EK120U		284	350	⬡
		EK135FT	+UA15T	286	350	⬡
		EK120UNV	+UA12T	477	350	⬡
Hydraulic crimping systems	25/4 - 120/20	THK22		308	345	⬡
		HK122EL380		322	350	⬡
		HK252		320	356	⬡
		HK252EL380		323	356	⬡
Hydraulic crimping heads	25/4 - 120/20	PK22		308	345	⬡
		PK60UNV	+UA22	474	345	⬡
		PK12042		312	350	⬡
		PK120U		314	350	⬡
		PK252		316	356	⬡

# CONNECTED - COMPRESSION CABLE LUGS MADE FROM ALUMINIUM AND COPPER

Two components reliably connected. Copper and aluminium have different material properties. That's not always a good thing. Our compression cable lugs and connectors made from aluminium and copper are intricately produced by special processes and join together what belongs together. No matter which material you use: Your contacts are reliable with Klauke.



#### In brief

- ▶ Simple processing based on DIN standards
- ▶ Reliable connection of copper and aluminium, even in contact with water
- ▶ Special manufacturing methods ensure high quality
- ▶ Also suitable for sector shaped conductors and wires





**▶ As good as always**

Cable lugs and connectors made from aluminium and copper can be processed in exactly the same way as DIN standard aluminium cable lugs. No special tools are required, you simply use the right Klauke dies. And so the result is as good as always.

- For round and sector shaped conductors to DIN EN 60228 and aluminium wires to DIN 50182
- No additional costs for new crimping dies
- Reliable connection by preventing contact corrosion

**▶ Numerous versions available**

The great thing about the broad Klauke range is: You can select the suitable cable lug for your project and optimally process your choice using the Klauke tools. Everything fitting together.

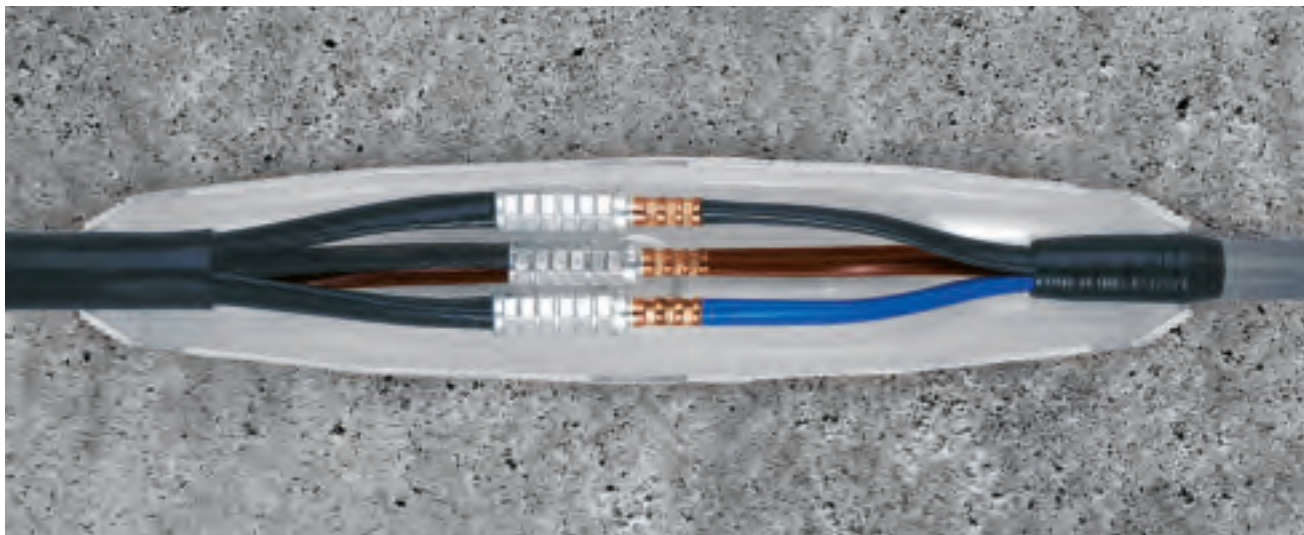
- Processing as usual with standard aluminium cable lugs
- Different versions available, for instance, as a cable lug with a copper eye or Cupal washers or as a rotational friction welded cable lug



**▶ Well connected in every situation**

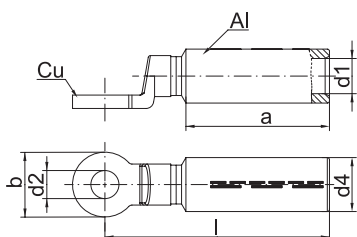
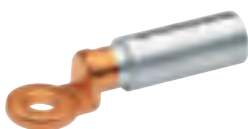
Reduction compression joints enable aluminium conductors to be integrated into copper-containing systems. They connect the two different materials regardless of the physical cable dimensions.

- Suitable for round or sector shaped conductors
- Suitable for multi-stranded and single-stranded sector shaped conductors





### Compression cable lugs, Al/Cu



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium open wires to DIN EN 50182 and pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46329
- ▶ With code number for clear tool assignment
- ▶ Filled with contact grease for optimum crimp results

#### Characteristics

- For connecting non-tensioned aluminium conductors to copper connections in humid environments and outdoors
- Barrier design with oil stop and solid copper palm
- Internal chamfer for simple cable insertion

#### Material

- E-aluminium
- Copper (EN13600)

#### Surface

- Bright

#### Technical instructions

- Tool: see page 115

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

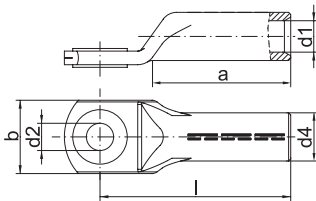
Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		re/se	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 8	363R8	16	25	12	30	24	6.0	8.5	12	68	4	2	4.4	5.9	10
M 10	363R10	16	25	12	30	24	6.0	10.5	12	68	4	2	4.2	5.7	10
M 8	364R8	25	35	12	30	24	6.8	8.5	12	68	4	2	4.4	5.8	10
M 10	364R10	25	35	12	30	24	6.8	10.5	12	68	4	2	4.2	5.6	10
M 12	364R12	25	35	12	30	24	6.8	13.0	12	68	4	2	3.9	5.3	10
M 8	365R8	35	50	14	42	24	8.0	8.5	14	77	5	2	4.4	6.3	10
M 10	365R10	35	50	14	42	24	8.0	10.5	14	77	5	2	4.2	6.1	10
M 12	365R12	35	50	14	42	24	8.0	13.0	14	77	5	2	3.8	5.8	10
M 8	366R8	50	70	16	42	25	9.8	8.5	16	77	5	2	4.4	6.4	10
M 10	366R10	50	70	16	42	25	9.8	10.5	16	77	5	2	4.2	6.2	10
M 12	366R12	50	70	16	42	25	9.8	13.0	16	77	5	2	3.9	5.9	10
M 10	367R10	70	95	18	52	25	11.2	10.5	18.5	84.5	6	3	4.2	7.4	10
M 12	367R12	70	95	18	52	25	11.2	13.0	18.5	84.5	6	3	3.9	7.1	10
M 10	368R10	95	120	22	56	30	13.2	10.5	22	90.5	6	3	7.4	11.4	10
M 12	368R12	95	120	22	56	30	13.2	13.0	22	90.5	6	3	6.8	10.8	10
M 16	368R16	95	120	22	56	30	13.2	17.0	22	90.5	6	3	6.4	10.4	10
M 12	369R12	120	150	22	56	30	14.7	13.0	23	92.0	6	3	6.8	11.4	5
M 16	369R16	120	150	22	56	30	14.7	17.0	23	92.0	6	3	6.4	10.8	5
M 12	370R12	150	185	25	60	30	16.3	13.0	25	104.0	6	3	6.8	13.1	5
M 16	370R16	150	185	25	60	30	16.3	17.0	25	104.0	6	3	6.4	12.7	5
M 20	370R20	150	185	25	60	35	16.3	21.0	25	107.5	6	3	10.1	16.4	5
M 10	371R10	185	240	28	60	30	18.3	10.5	28.5	105.0	6	3	10.3	18.6	5
M 12	371R12	185	240	28	60	35	18.3	13.0	28.5	105.0	6	3	10.1	18.4	5
M 16	371R16	185	240	28	60	35	18.3	17.0	28.5	105.0	6	3	9.3	17.6	5

see next page

## Compression cable lugs, Al/Cu

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 20	<b>371R20</b>	185	240	28	60	35	18.3	21.0	28.5	107.5	6	3	10.1	18.4	5
M 10	<b>372R10</b>	240	300	32	70	35	21.0	10.5	32	118.5	8	3	12.1	22.5	5
M 12	<b>372R12</b>	240	300	32	70	35	21.0	13.0	32	118.5	8	3	11.8	22.2	5
M 16	<b>372R16</b>	240	300	32	70	35	21.0	17.0	32	118.5	8	3	11.0	21.4	5
M 20	<b>372R20</b>	240	300	32	70	35	21.0	21.0	32	118.5	8	3	10.1	20.5	5
M 12	<b>373R12</b>	300	--	34	70	36	23.3	13.0	34	123.5	8	3	17.7	33.7	2
M 16	<b>373R16</b>	300	--	34	70	36	23.3	17.0	34	123.5	8	3	16.9	32.9	2
M 20	<b>373R20</b>	300	--	34	70	40	23.3	21.0	34	123.5	8	3	16.0	32.0	1
M 12	<b>374R12</b>	400	--	38	73	40	26.0	13.0	38.5	150.5	--	4	25.6	37.4	1

## Compression cable lugs, Al/Cu with Cu eye



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ Tube dimension to DIN 46329
- ▶ For pre-rounded sector shaped conductors
- ▶ Unique tool assignment due to coding
- ▶ Filled with contact grease for optimum crimp characteristics

### Characteristics

- For connecting non-tension aluminium connections using Cu-washers in humid areas
- With Cu eyelet in screw-on area
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium
- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Tool: see page 115

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 6	<b>302R6</b>	10	16	10	32	18	5,0	6,5	10	52	4	2	0,260	1,20	10
M 8	<b>302R8</b>	10	16	10	32	22	5,0	8,5	10	52	4	2	0,580	1,50	10
	<b>303R8</b>	16	25	12	32	22	5,8	8,5	12	52	4	2	0,600	1,95	10
M 10	<b>303R10</b>	16	25	12	32	25	5,8	10,5	12	52	4	2	0,600	2,00	10
M 8	<b>304R8</b>	25	35	12	38	22	6,8	8,5	12	60	4	2	0,625	2,00	10
	<b>304R10</b>	25	35	12	38	25	6,8	10,5	12	60	4	2	0,900	2,10	10
M 10	<b>305R10</b>	35	50	14	42	26	8,0	10,5	14	67	5	2	0,800	3,00	10
	<b>305R12</b>	35	50	14	42	30	8,0	13,0	14	67	5	2	1,120	3,10	10
M 10	<b>306R10</b>	50	70	16	45	27	9,8	10,5	16	72	5	2	0,900	3,60	10
M 12	<b>306R12</b>	50	70	16	45	30	9,8	13,0	16	72	5	2	1,120	3,80	10
M 10	<b>307R10</b>	70	95	18	55	29	11,2	10,5	18,5	86	6	3	1,075	5,60	10

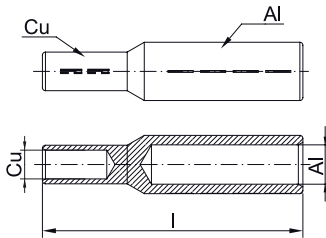
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### Compression cable lugs, Al/Cu with Cu eye

Size of bolt dia.	Part No.	Nominal cross section mm <sup>2</sup>			Dimension mm							Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se	Code	a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)				
M 12	<b>307R12</b>	70	95	18	55	32	11,2	13,0	18,5	86	6	3	1,300	5,70	10	
M 10	<b>308R10</b>	95	120	22	55	32	13,2	10,5	22	90	6	3	1,435	10,00	5	
M 12	<b>308R12</b>	95	120	22	55	35	13,2	13,0	22	90	6	3	1,735	9,50	5	
M 16	<b>308R16</b>	95	120	22	55	38	13,2	17,0	22	90	6	3	2,655	10,00	5	
M 12	<b>309R12</b>	120	150	22	55	35	14,7	13,0	23	91	6	3	1,810	8,70	5	
M 16	<b>309R16</b>	120	150	22	55	38	14,7	17,0	23	91	6	3	2,230	8,80	5	
M 12	<b>310R12</b>	150	185	25	63	35	16,3	13,0	25	103	6	3	2,025	12,20	5	
M 16	<b>310R16</b>	150	185	25	63	41	16,3	17,0	25	103	6	3	2,655	12,30	5	
M 20	<b>310R20</b>	150	185	25	63	44	16,3	21,0	25	103	6	3	3,620	12,80	5	
M 12	<b>311R12</b>	185	240	28	65	40	18,3	13,0	28	106	6	3	2,320	15,00	5	
M 16	<b>311R16</b>	185	240	28	65	42	18,3	17,0	28	106	6	3	4,975	15,50	5	
M 20	<b>311R20</b>	185	240	28	65	46	18,3	21,0	28	106	6	3	4,610	15,50	5	
M 12	<b>312R12</b>	240	300	32	70	45	21,0	13,0	32	116	8	3	2,750	20,00	5	
M 16	<b>312R16</b>	240	300	32	70	45	21,0	17,0	32	116	8	3	3,400	21,00	5	
M 20	<b>312R20</b>	240	300	32	70	49	21,0	21,0	32	116	8	3	4,600	22,00	5	
M 16	<b>313R16</b>	300	--	34	75	51	23,3	17,0	34	124	8	3	3,980	21,60	1	
M 20	<b>313R20</b>	300	--	34	75	51	23,3	21,0	34	124	8	3	5,510	22,20	1	
M 16	<b>314R16</b>	400	--	38	95	58	26,0	17,0	38,5	165	--	4	4,200	35,00	1	
M 20	<b>314R20</b>	400	--	38	95	58	26,0	21,0	38,5	165	--	4	5,950	35,00	1	

## Compression joints, Al/Cu



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ For Cu round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6
- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46235 part 1 and 2
- ▶ With code number for clear tool assignment

### Characteristics

- For connecting non-tension aluminium and copper conductors
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium
- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal cross-sections can be found on page 68
- Tool: see page 115

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

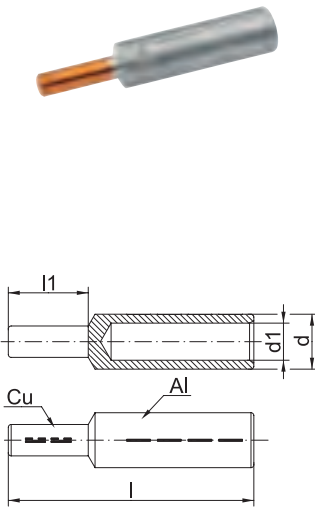
Part No.	Nominal cross section mm <sup>2</sup>			Dimension mm			Code		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	Al rm/sm	Al re/se	Cu re/rm/se/sm	l	Inner dia. Al	Inner dia. Cu	Al	Cu			
322R10	10		10	55.0	5.0	4.5	10	6	0.212	1.100	4
322R16	10		16	61.0	5.0	5.4	10	8	0.714	1.550	4
323R10	16		10	55.0	6.0	4.5	12	6	0.212	1.500	4
323R16	16		16	61.0	6.0	5.4	12	8	0.714	1.750	4
324R10	25	35	10	55.0	6.8	4.5	12	6	0.212	1.400	4
324R16	25	35	16	61.0	6.8	5.5	12	8	0.714	1.650	4
324R25	25	35	25	61.0	6.8	7.0	12	10	0.892	1.900	4
324R35	25	35	35	61.0	6.8	8.2	12	12	1.624	2.000	4
324R50	25	35	50	72.0	6.8	10.0	12	14	2.362	3.500	4
324R416	25/4	35	16	61.0	7.6	5.5	12	8	0.714	1.600	4
324R425	25/4	35	25	61.0	7.6	7.0	12	10	0.892	1.850	4
325R16	35	50	16	71.0	8.0	5.5	14	8	0.714	2.500	4
325R25	35	50	25	71.0	8.0	7.0	14	10	0.892	2.650	4
325R35	35	50	35	71.0	8.0	8.2	14	12	1.519	3.300	4
325R50	35	50	50	77.0	8.0	10.0	14	14	2.362	3.530	4
325R616	35/6	50	16	71.0	9.0	5.5	14	8	0.714	2.450	4
325R625	35/6	50	25	71.0	9.0	7.0	14	10	0.892	2.600	4
325R635	35/6	50	35	71.0	9.0	8.2	14	12	1.624	3.250	4
326R16	50	70	16	71.5	9.8	5.5	16	8	0.714	2.850	4
326R25	50	70	25	71.5	9.8	7.0	16	10	0.892	3.200	4
326R35	50	70	35	71.5	9.8	8.2	16	12	1.624	3.800	4
326R50	50	70	50	77.5	9.8	10.0	16	14	2.362	4.550	4
327R16	70	95	16	79.0	11.2	5.5	18	8	0.714	4.100	4



### Compression joints, Al/Cu

Part No.	Nominal cross section mm <sup>2</sup>			Dimension mm			Code		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	Al rm/sm	Al re/se	Cu re/rm/se/sm	l	Inner dia. Al	Inner dia. Cu	Al	Cu			
327R25	70	95	25	79.0	11.2	7.0	18	10	0.892	3.950	4
327R35	70	95	35	79.0	11.2	8.2	18	12	1.624	4.900	4
327R50	70	95	50	85.0	11.2	10.0	18	14	2.362	5.700	4
327R70	70	95	70	86.0	11.2	11.5	18	16	2.921	7.250	4
327R95	70	95	95	95.0	11.2	13.5	18	18	4.957	9.360	4
327R120	70	95	120	99.0	11.2	15.5	18	20	5.640	10.540	4
328R16	95	120	16	79.0	13.2	5.5	22	8	0.714	6.150	4
328R25	95	120	25	79.0	13.2	7.0	22	10	0.892	6.300	4
328R35	95	120	35	79.0	13.2	8.2	22	12	1.519	6.800	4
328R50	95	120	50	85.0	13.2	10.0	22	14	2.362	8.050	4
328R70	95	120	70	87.0	13.2	11.5	22	16	3.105	8.200	4
328R95	95	120	95	95.0	13.2	13.5	22	18	4.957	10.350	4
328R120	95	120	120	95.0	13.2	15.5	22	20	5.640	11.550	4
329R35	120	150	35	81.0	14.7	8.2	22	12	1.519	7.600	4
329R50	120	150	50	87.0	14.7	10.0	22	14	2.362	7.900	4
329R70	120	150	70	89.0	14.7	11.5	22	16	3.105	8.500	4
329R95	120	150	95	97.0	14.7	13.5	22	18	4.857	11.000	4
329R120	120	150	120	97.0	14.7	15.5	22	20	5.640	10.280	4
330R16	150	185	16	91.5	16.3	5.4	25	8	0.714	7.800	4
330R25	150	185	25	91.5	16.3	6.8	25	10	0.892	8.000	4
330R35	150	185	35	91.5	16.3	8.2	25	12	1.624	8.400	4
330R50	150	185	50	98.5	16.3	10.0	25	14	2.362	10.200	4
330R70	150	185	70	99.5	16.3	11.5	25	16	3.105	10.350	4
330R95	150	185	95	107.5	16.3	13.5	25	18	4.957	12.650	4
330R120	150	185	120	107.5	16.3	15.5	25	20	5.640	13.900	4
330R150	150	185	150	124.0	16.3	17.0	25	22	8.231	16.700	4
331R50	185	240	50	99.0	18.3	10.0	28	14	2.362	12.100	1
331R70	185	240	70	100.0	18.3	11.5	28	16	3.105	13.000	1
331R95	185	240	95	108.0	18.3	13.5	28	18	4.957	14.450	1
331R120	185	240	120	108.0	18.3	15.5	28	20	5.640	13.720	1
331R150	185	240	150	113.0	18.3	17.0	28	22	8.231	19.550	1
331R185	185	240	185	116.0	18.3	19.0	28	25	9.621	21.000	1
332R50	240	300	50	110.0	21.0	10.0	32	14	2.362	16.500	1
332R70	240	300	70	111.0	21.0	11.5	32	16	3.105	18.000	1
332R95	240	300	95	119.0	21.0	13.5	32	18	4.957	19.000	1
332R120	240	300	120	119.0	21.0	15.5	32	20	5.640	20.500	1
332R150	240	300	150	124.0	21.0	17.0	32	22	8.231	23.300	1
332R185	240	300	185	127.0	21.0	19.0	32	25	9.621	25.500	1
332R240	240	300	240	128.0	21.0	21.5	32	28	12.705	30.100	1
333R120	300	--	120	119.0	23.5	15.5	34	20	5.640	27.800	1
333R150	300	--	150	124.0	23.5	17.0	34	22	8.234	31.100	1
333R185	300	--	185	127.0	23.5	19.0	34	25	9.621	32.700	1
333R240	300	--	240	128.0	23.5	21.5	34	28	12.705	37.500	1
333R300	300	--	300	134.0	23.5	24.5	34	32	16.099	41.700	1

## Compression joints with Cu bolts, Al



- ▶ For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- ▶ For pre-rounded sector shaped conductors
- ▶ Tube dimension to DIN 46267, part 2
- ▶ Unique tool assignment due to coding

### Characteristics

- For screwing non-tension aluminium conductors into copper terminals
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

### Material

- E-aluminium
- Copper (EN13600)

### Surface

- Bright

### Technical instructions

- Tool: see page 115

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm <sup>2</sup>		Code	Dimension mm				Bolt mm dia.	Conductor mm dia.	Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	rm/sm	re/se		d Ø	d1	l	l1					
344R	25	35	12	12.0	6.8	58	20	6	6.3	0.462	1.6	10
345R	35	50	14	14.0	8.0	71	22	7	7.5	0.695	2.5	10
346R	50	70	16	16.0	10.0	74	25	8	9.0	1.037	3.3	10
347R	70	95	18	18.5	11.5	87	30	10	10.5	1.958	5.4	10
348R	95	120	22	23.0	13.2	91	33	12	12.5	3.112	8.7	10
349R	120	150	22	23.0	15.0	97	38	12	14.0	3.598	9.0	10
350R	150	185	25	25.5	16.5	108	38	12	15.8	3.598	10.9	10
351R	185	240	28	28.5	18.5	116	44	14	17.5	3.692	15.7	5
352R	240	300	32	32.5	21.5	128	44	16	20.3	7.435	21.8	5
353R	300	--	34	34.5	23.5	131	46	18	22.5	9.410	26.7	1





### Cupal washers

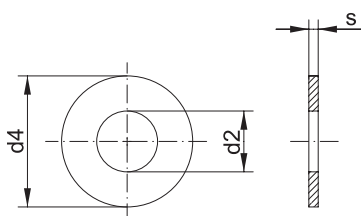


#### Characteristics

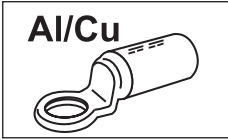
- Flat washer for processing aluminium and copper cable lugs
- For connecting copper conductors to aluminium in dry environments
- For connecting aluminium conductors to copper in dry environments
- Can also be used for connecting tinned aluminium cable lugs in humid environments

#### Material

- E-Al, one side copper plated



Size of bolt dia.	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
		d2	d4	s		
M 6	<b>CS615</b>	6.5	15	2	0.06	10
M 8	<b>CS818</b>	8.5	18	2	0.09	10
M 10	<b>CS1022</b>	11.0	22	2	0.26	10
M 12	<b>CS1228</b>	13.0	28	2	0.44	10
M 14	<b>CS1428</b>	15.0	28	2	0.40	10
M 16	<b>CS1635</b>	17.0	35	2	0.66	10



## Tool application chart

### Compression cable lugs and connectors made from Al/Cu

The tools of the copper side of our Al/Cu compression joints you will find in the tool application chart of copper compression cable lugs and connectors acc. to DIN

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
mechanical, electrical, pneumatic crimping tools with interchangeable die / head	10-70	K354		246	331	⬡
	10-185	K18		248	339	⬡
	10-240	K22		250	344	⬡
Hand hydraulic crimping tools	10-185	HK6018		292	339	⬡
		HK60UNV	+UA18	473	339	⬡
	10-300	HK6022		294	344	⬡
		HK60UNV	+UA22	473	344	⬡
		HK12030		298	350	⬡
		HK12042		300	350	⬡
	150-500	HK45		321	358	⬡
Battery powered crimping tools	10-7	EK354ML		262	331	⬡
		EK354		266	331	⬡
	10-185	EK5018		270	339	⬡
		EK60UNV	+UA18	476	339	⬡
		EKM60UNV	+UA18	475	339	⬡
	10-300	EK6022		274	344	⬡
		EKM6022		272	344	⬡
		EK60UNV	+UA22	476	344	⬡
		EKM60UNV	+UA22	475	344	⬡
		EK12032		280	350	⬡
		EK12042		282	350	⬡
		EK120U		284	350	⬡
		EK135FT	+UA15T	286	350	⬡
	EK120UNV	+UA12T	477	350	⬡	
	50-240	EKM60ID		278		⬡
Hydraulic crimping systems	10-185	THK18		306	339	⬡
	10-300	THK22		308	344	⬡
		HK122EL380		322	350	⬡
	10-500	HK252		320	355	⬡
		HK252EL380		323	355	⬡
Hydraulic crimping heads	10-185	PK18		306	339	⬡
		PK60UNV	+UA18	474	339	⬡
	10-300	PK22		308	344	⬡
		PK60UNV	+UA22	474	344	⬡
		PK12042		312	350	⬡
		PK120U		314	350	⬡
	10-500	PK252		316	355	⬡
	150-500	PK45		318	358	⬡



# UNCOMPLICATED - CLAMPS AND SCREW CONNECTORS

Simple connecting of dissimilar materials and cross-sections. Made possible by Klauke clamps and screw connectors: They suit all standard sizes and materials. In compliance with the specified safety measures, compact tab connectors, for instance, can be installed even when live. All very straightforward.



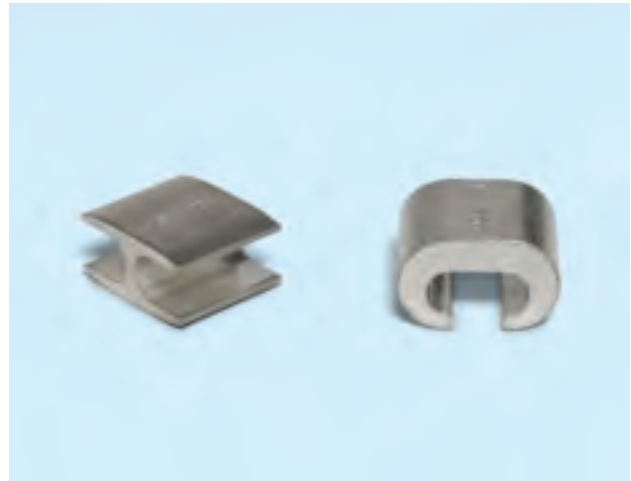
#### In brief

- ▶ Simple branching without having to cut the main conductor with Klauke H and C clamps
- ▶ H clamps to DIN EN 50164-1 short-circuit current tested
- ▶ Also available in a barrier version for Al/Cu connections

▶ **Continuously connected**

Save yourself the trouble, the conductor does not need to be cut. Various nominal cross-sections can be clamped with multi-purpose clamps.

- Flexible due to the large cross-sectional range, C-clamps from 2.5 mm<sup>2</sup> to 185 mm<sup>2</sup> nominal cross-sections, H-clamps from 70 mm<sup>2</sup> nominal cross-section
- Efficient connections, without having to cut the main conductor.
- Straightforward connection of various cross-sections.



▶ **Screwing instead of crimping**

Connect the conductors using screws. Why? Because no special tools are needed. Screws are available for every application. To make sure they last, all our screw connectors are produced from high-quality materials. Simply an efficient solution!

- Connections from 2.5 mm<sup>2</sup> to 185 mm<sup>2</sup> nominal cross-section
- No special tool required
- The right screw solution to suit a host of requirements
- For aluminium and copper conductors
- For round and sector shaped conductors
- For conductors and wires

▶ **Clamps for continuous supply**

We don't abandon your supply. With Klauke clamps, your operation can continue without outage, you carry out the installation even while live. No standstill, the operation continues.

- Especially suitable for the energy supply industry
- Can be installed while live
- Main conductor remains intact
- Different versions available for 3 and 4 core cables





### Punched cable lugs, Cu



► For connecting of round conductors to DIN EN 60228 Cl. 1 and 2, for example in lightning protection areas

#### Characteristics

- Also for outdoor assembly
- Available with 2 or 4 screws

#### Material

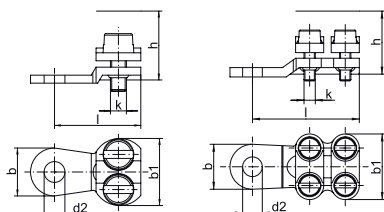
- Copper (ETP)
- Screws: DIN 84 / DIN 933 bronze, F 60

#### Surface

- Tin-plated to protect against corrosion

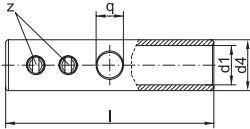
#### Additional information

- Part Number appendix for bright version „BK“



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm						Number of screws	Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
		b	b1	d2	k	h	l				
6 - 10	<b>572R6</b>	15.0	18.0	6.5	M4	10	23.0	2	4	1.30	50
10 - 16	<b>573R6</b>	15.0	20.5	6.5	M5	14	27.0	2	6	1.30	50
	<b>573R8</b>	15.0	20.5	8.5	M5	14	27.0	2	6	1.30	50
16 - 25	<b>574R8</b>	15.0	25.0	8.5	M5	16	30.0	2	6	2.75	50
	<b>584R8</b>	18.5	22.5	8.5	M5	16	36.0	4	6	3.70	25
25 - 35	<b>584R10</b>	19.5	22.5	10.5	M5	16	37.0	4	6	3.75	25
	<b>575R8</b>	18.5	24.0	8.5	M5	16	25.5	2	6	2.50	50
35 - 50	<b>585R8</b>	18.5	24.0	8.5	M5	16	38.5	4	6	4.30	25
	<b>585R10</b>	21.5	24.0	10.5	M5	16	42.0	4	6	4.65	25
50 - 70	<b>586R10</b>	19.0	28.0	10.5	M6	19	46.0	4	8	6.75	25
	<b>586R12</b>	21.0	28.0	13.0	M6	19	47.0	4	8	6.70	25
70 - 95	<b>587R10</b>	23.5	31.0	10.5	M6	19	51.0	4	8	9.35	10
	<b>587R12</b>	23.5	31.0	13.0	M6	19	51.0	4	8	9.30	10
95 - 150	<b>588R10</b>	24.0	34.0	10.5	M6	25	57.0	4	8	12.00	10
	<b>588R12</b>	24.0	34.0	13.0	M6	25	57.0	4	8	11.85	10
150 - 240	<b>589R10</b>	30.0	42.0	10.5	M8	32	61.0	4	20	20.15	10
	<b>589R12</b>	30.0	42.0	13.0	M8	32	61.0	4	20	20.20	10
185 - 300	<b>589R16</b>	30.0	42.0	17.0	M8	32	61.5	4	20	20.10	10
	<b>590R10</b>	34.0	48.5	10.5	M8	32	68.5	4	20	24.40	5
	<b>590R12</b>	34.0	48.5	13.0	M8	32	68.5	4	20	24.35	5
	<b>590R16</b>	34.0	48.5	17.0	M8	32	68.5	4	20	24.30	5
	<b>590R20</b>	36.0	48.5	21.0	M8	32	70.5	4	20	24.25	5
	<b>592R12</b>	32.0	50.0	13.0	M8	37	68.5	4	20	27.95	5
	<b>592R16</b>	32.0	50.0	17.0	M8	37	68.5	4	20	28.00	5
	<b>592R20</b>	34.5	50.5	21.0	M8	37	70.0	4	20	27.95	5

## Tubular soldering sleeves, CuZn



- ▶ For round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6
- ▶ Processed without using a crimping tool



### Characteristics

- Simple processing due to fixed screws and solder hole



### Material

- CuZn 40 Pb 2
- Screws: Steel to DIN 551



### Surface

- Tin-plated to protect against corrosion

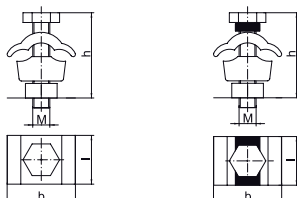


### Technical instructions

- A connection needs to be soldered

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm				Number of set screws z	Weight/pcs. ~kg	Packing unit/pcs
		d1	d4	l	Diameter q			
6	551R	3.5	7	25	3.3	2	0.60	10
10	552R	4.5	6	30	3.3	2	1.20	10
16	553R	5.5	10	40	4.2	4	1.90	10
25	554R	7.0	12	45	4.2	4	2.85	10
35	555R	8.5	13	45	5.0	4	3.00	10
50	556R	10.0	15	48	5.0	4	4.00	10
70	557R	12.0	18	52	6.8	4	6.30	10
95	558R	13.5	20	55	6.8	4	8.05	10
120	559R	15.0	22	60	6.8	4	9.90	10
150	560R	17.0	24,5	64	6.8	4	11.80	5
185	561R	19.0	26	70	6.8	10	14.30	5
240	562R	21.0	28	70	6.8	10	15.50	5
300	563R	24.0	32	75	6.8	10	19.30	1

## Parallel groove clamps, Cu, 1 screw



- ▶ For non-tension copper cables acc. to DIN 48201 part 1
- ▶ For screwing conductors acc. to DIN EN 60228 Class 1 and 2

### Characteristics

- Also for outdoor assembly
- Version with 1 screw
- Optionally available with thrust plate for equal pressure distribution

### Material

- Copper (ETP)
- Screws: Bronze F 60
- Nut: copper

### Surface

- Bright

Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			M	Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
		b	h	l				
<b>Without thrust plate</b>								
2.5 - 16	<b>SAK10</b>	19.5	16	16	M5	6	2.10	10
2.5 - 25	<b>SAK12</b>	25.0	21	18	M6	8	4.10	10
	<b>SAK14</b>	25.0	22	20	M7	14	3.95	10
6 - 35	<b>SAK16</b>	28.0	23	20	M7	14	6.0	10
6 - 50	<b>SAK18</b>	32.5	26	24	M7	14	8.0	10
	<b>SAK20</b>	33.5	27	22	M8	20	8.6	10
6 - 70	<b>SAK22</b>	37.5	29	24	M8	20	11.1	5
10 - 95	<b>SAK24</b>	41.0	36	28	M8	20	15.6	5
<b>With thrust plate</b>								
2.5 - 16	<b>SAK11</b>	19.5	16	16	M5	6	2.6	10
2.5 - 25	<b>SAK13</b>	25.0	21	18	M6	8	4.30	10
	<b>SAK15</b>	25.0	22	18	M7	14	4.6	10
6 - 35	<b>SAK17</b>	28.0	23	20	M7	14	6.3	10
6 - 50	<b>SAK19</b>	32.5	26	20	M7	14	7.9	10
	<b>SAK21</b>	33.5	27	22	M8	20	9.1	10
6 - 70	<b>SAK23</b>	37	29	24	M8	20	11.6	5
10 - 95	<b>SAK25</b>	45.0	36	31	M10	39	19.60	5



## Parallel groove clamps, Cu, 2 screws



- ▶ For non-tension copper cables acc. to DIN 48201 part 1
- ▶ For screwing conductors acc. to DIN EN 60228 Cl. 1 and 2

### Characteristics

- Also for outdoor assembly
- Version with 2 screws
- Optionally available with thrust plate for equal pressure distribution

### Material

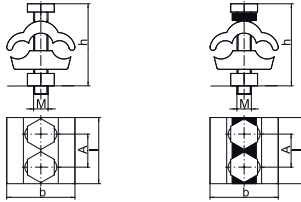
- Copper (ETP)
- Screws: Bronze F 60
- Nut: copper

### Surface

- Bright

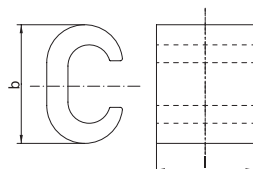
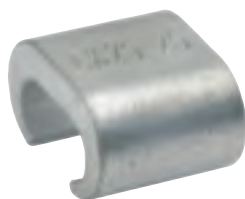
### Technical instructions

- When connecting cross sections 95, 120 and 150 mm<sup>2</sup> two power branch clamps are to be used due to the current carrying capacity.



Nominal cross section mm <sup>2</sup>	Part No.	Dimension mm			A	M	Torque Nm	Weight/pcs. ~kg	Packing unit/ pcs
		b	h	l					
<b>Without thrust plate</b>									
2.5 - 16	<b>SAK30</b>	20.5	16.0	24	13.0	M5	6	3.7	10
2.5 - 25	<b>SAK32</b>	25.5	21	27	13.5	M6	8	6.4	10
	<b>SAK34</b>	25.0	22	30	15.0	M7	14	7.7	10
6 - 35	<b>SAK36</b>	30.0	23	30	15	M7	14	8.5	10
6 - 50	<b>SAK38</b>	33.0	26	32	16.0	M7	14	12.3	10
10 - 50	<b>SAK40</b>	32.5	27	36	18.0	M8	20	12.9	10
16 - 150	<b>SAK46</b>	52.5	40	52	26.0	M10	39	37.4	5
<b>With thrust plate</b>									
2.5 - 16	<b>SAK31</b>	19.5	16	24	13.0	M5	6	4.1	10
2.5 - 25	<b>SAK33</b>	25.5	21	27	14.0	M6	8	7.0	10
	<b>SAK35</b>	25.0	22	30	15.0	M7	14	7.9	10
6 - 35	<b>SAK37</b>	28.0	23	32	16.0	M7	14	10.2	10
6 - 50	<b>SAK39</b>	33.0	26	32	17.0	M7	14	12.8	10
	<b>SAK41</b>	32.5	27	34.5	18.0	M8	20	14.7	10
6 - 70	<b>SAK43</b>	37.0	29	38.5	19.0	M8	20	19.1	5
10 - 95	<b>SAK45</b>	41.0	36	42	20.0	M8	20	25.0	5
16 - 150	<b>SAK47</b>	52.5	40	52	26.0	M10	39	39.0	5

## Branch clamps in C-type, Cu



- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Ideal for clamping identical conductor cross-sections e.g. to VDE 60228 Cl. 1 and 2
- ▶ No need to cut the main conductor

### Material

- Copper (ETP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

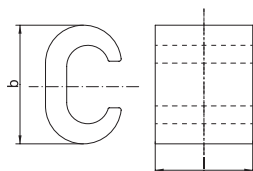
- Optimum conducting characteristics in combination with compound
- Tool: see page 133

### Additional information

- Part Number appendix for bright version „BK“
- rm = round multi-stranded; re = round single solid
- \* = Also suitable for 25 mm<sup>2</sup> round solid

Part No.	Hint	Cross section main conductor mm <sup>2</sup> rm/re		Hint	Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
		Main conductor	Tab conductor		b	l		
CK16		16/25	16/25		16.0	15	0.94	25
CK25	*	25/35	25/35	*	20.0	16	1.68	25
CK35		35/50	35/50		25.7	22	3.42	25
CK50		50/-	50/-		28.0	23	4.88	25
CK70		70/-	70/-		34.0	28	9.69	10
CK95		95/-	95/-		35.0	28	7.30	10

## Branch clamps in C-type, Cu, multi-purpose clamps



- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Ideal for clamping non-identical conductor cross-sections e.g. to VDE 60228 Cl. 1 and 2
- ▶ No need to cut the main conductor

### Material

- Copper (ETP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Optimum conducting characteristics in combination with compound
- Tool: see page 133

### Additional information

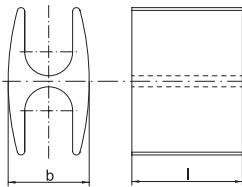
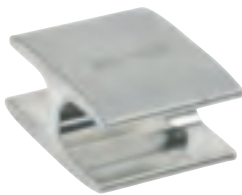
- Part Number appendix for bright version „BK“
- rm = round multi-stranded; re = round single solid

Part No.	Cross section main conductor mm <sup>2</sup> rm/re		Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
	Main conductor	Tab conductor	b	l		
MCK1010	6 - 10/10	4 - 6/4 - 10	12.0	12	0.460	25
MCK1016	10 - 16/16	4 - 10/4 - 10	19.0	17	1.900	25
MCK1025	16 - 25/25	4 - 10/4 - 10	19.0	17	1.900	25
MCK3535	16 - 25/25 - 35	16 - 25/16 - 35	20.0	17	1.750	25
MCK2550	35/50	4 - 25/4 - 25	24.8	23	4.400	25
MCK5050	35/50	16 - 35/25 - 50	26.5	23	4.200	25
MCK3570	50 - 70/-	4 - 35/4 - 35	33.8	28	10.700	10

## Branch clamps in C-type, Cu, multi-purpose clamps

Part No.	Cross section main conductor mm <sup>2</sup> rm/re		Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
	Main conductor	Tab conductor	b	l		
<b>MCK3595</b>	95/-	16 - 35	41.0	30	15.000	10
<b>MCK7095</b>	95/-	35 - 70	41.0	30	14.000	10
<b>MCK120120</b>	120/-	35 - 120	45.0	30	16.550	10
<b>MCK150150</b>	150/-	70 - 150	53.0	35	23.000	5
<b>MCK185185</b>	185/-	95 - 185	60.0	40	33.000	5

## Branch clamps in H-type, Cu



- ▶ For non-tension copper cables, e.g. to DIN 48201-1
- ▶ Ideal for clamping identical conductor cross-sect. e.g. to DIN EN 60228 Cl. 1 and 2
- ▶ Lightning protection tested to EN 50164-1
- ▶ No need to cut the main conductor

### Characteristics

- H-shape allows simple processing
- Optimum conducting characteristics when used with compound

### Material

- Copper (ETP)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 134

### Additional information

- Part Number appendix for bright version „BK“
- \* = To EN 50164-1 lightning current tested

Part No.	Cross section main conductor mm <sup>2</sup> rm/re		Hint	Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
	Main conductor	Tab conductor		b	l		
<b>AH7070</b>	70	70	*	17.0	28.0	6.5	25
<b>AH9595</b>	95	95		22.0	30.0	10.0	25
<b>AH120120</b>	120	120		24.0	25.0	9.8	25

## Compound for branch clamps



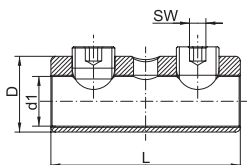
- ▶ Optimum conductivity properties for processing aluminium cable lugs and connectors and branch clamps (C and H-type)

### Characteristics

- Water-resistant, with corundum for destroying the oxidation layer
- Content/tin: 0.125 kg

Part No.
<b>KF125</b>

## Screw connectors for shielded copper wires



- ▶ For connecting different conductor types and materials, e.g. to DIN EN 60228 Class 1 and 2
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Suitable cross-section range for example shielded copper wires

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- With inspection hole for monitoring full cable insertion

### Material

- Insulated body: brass (CuZn)
- Screws: stainless steel, tin-plated

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

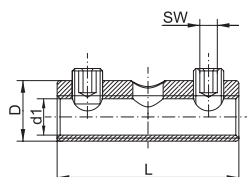
- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- rm = round multi-stranded; re = round single solid

Part No.	Nominal cross section mm <sup>2</sup>		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/ pcs
	re	rm	D	d1	L	AF			
<b>SV100</b>	6 - 35	6 - 25	14	7.2	40	4	10	3.9	4

## Screw connectors for street lighting



- ▶ For connecting different conductor types and materials, e.g. to DIN EN 60228 Class 1 and 2
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Suitable cross-section range for street lighting

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- With inspection hole for monitoring full cable insertion

### Material

- Insulated body: brass (CuZn)
- Screws: stainless steel, tin-plated

### Surface

- Either bright or tin-plated

### Technical instructions

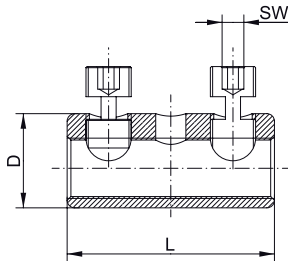
- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- rm = round multi-stranded; re = round single solid

Part No.	Nominal cross section mm <sup>2</sup>		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/ pcs
	re	rm	D	d1	L	AF			
With threaded pin, tin-plated									
<b>SV200</b>	1.5 - 16	1.5 - 16	10	5.5	30	2.5	4	1.35	4
With threaded pin, bright finished									
<b>SV200BK</b>	1.5 - 16	1.5 - 16	10	5.5	30	2.5	4	1.35	4

## Screw connector with 2 screws



- ▶ For connecting various conductor types and materials, e.g. to DIN EN 60228 Cl. 1 and 2
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Reliable processing due to cable insertion control (dissimilar materials must not come into contact)

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Either with threaded pin or shear head, shear head partly fixed
- Version with 2 screws

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

- Either bright or tin-plated

### Technical instructions

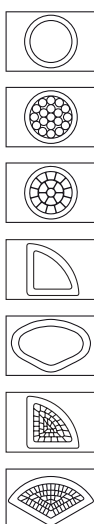
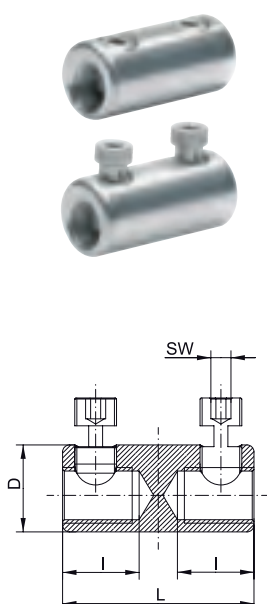
- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- \* = fixed version, Part Number appendix „NL“
- \*\* = version with fixed countersink shear head, Part Number appendix „VK“
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, (r) = pre-rounded, (v) = compacted

Part No.	Nominal cross section mm <sup>2</sup>				Hint	Dimension mm			Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	re	rm	se	sm		D	L	AF			
<b>With threaded pin, bright finished</b>											
<b>SV303</b>	6 - 35	6 - 25, Cu 2.5 - 50 (v)	--	Cu 2.5 - 35		14	40	4	8	1.5	4
<b>SV300</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV301</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	55	5	20	6.6	4
<b>SV308</b>	25 - 150	25 - 150	50 - 150 (90°), 50 - 150 (120°)	--		28	70	6	25	11.3	4
<b>SV302</b>	35 - 50	95 - 185	50 - 185 (90°)	35 - 150		32	80	6	25	16	4
<b>Without threaded pin, bright finished</b>											
<b>SV303V</b>	6 - 35	6 - 25, Cu 2.5 - 50 (v)	--	Cu 2.5 - 35		14	40	4	8	1.5	4
<b>SV300V</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV307V</b>	50 - 70	10 - 70	50 - 70	35 - 70, 35 - 70		22	57	5	15	4.7	4
<b>SV301V</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	55	5	20	6.6	4
<b>SV302V</b>	35 - 50	35*185	50 - 185 (90°)	35 - 150		32	80	6	25	16	4
<b>With shear head, bright finished</b>											
<b>SV303AK</b>	6 - 35	6 - 25	--	--	*	14	40	4	8	1.5	4
<b>SV303AKNL</b>	6 - 35	6 - 25, Cu 2.5 - 50 (v)	--	Cu 2.5 - 35	*	14	40	4	8	1.5	4
<b>SV304AKNL</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV307AKNL</b>	10 - 70	10 - 70	50 - 70	35 - 70, 35 - 70		22	57	5	15	4.7	4
<b>SV301AK</b>	16 - 95	16 - 95	50 - 95, 50 - 150 (120°)	35 - 95 (r), 35 - 150		25	55	5	20	6.6	4
<b>SV302AK</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)		32	80	6	25	16	4
<b>With shear head, tin - plated</b>											
<b>SV304AKNLV</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16.5	40	4	9	1.7	4
<b>SV301AKV</b>	16 - 95	16 - 95	50 - 95	35 - 70, 35 - 95 (r)	**	25	55	5	20	6.6	4
<b>SV302AKV</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150		32	80	6	25	16	4

### Screw connector with barrier



- ▶ For connecting various conductor types and materials, e.g. to DIN EN 60228 Cl. 1 and 2
- ▶ Ideal for connecting identical and different conductor cross-sections

#### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Either with threaded pin or shear head, shear head partly fixed
- Version with 2 screws and barrier

#### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

#### Surface

- Either bright or tin-plated

#### Technical instructions

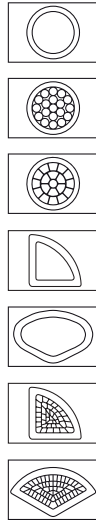
- Refer to the installation instructions in the technical appendix on page i-8

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, (r) = pre-rounded, (v) = compacted

Part No.	Nominal cross section mm <sup>2</sup>				Hint	Dimension mm				Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	re	rm	se	sm		D	I	L	AF			
With threaded pin, bright finished												
<b>SV315</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV309</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	22	55	5	20	6.6	4
<b>SV320</b>	25 - 150	25 - 150	50 - 150 (90°), 50 - 150 (120°)	35 - 150		28	31	70	6	25	11.3	4
<b>SV310</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)		32	32	80	6	25	16	4
With threaded pin, tin-plated												
<b>SV315V</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV309V</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	22	55	5	20	6.6	4
<b>SV320V</b>	25 - 150	25 - 150	50 - 150 (90°), 50 - 150 (120°)	--		28	31	70	6	25	11.3	4
<b>SV310V</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)		32	32.5	80	6	25	16	4
With shear head, bright finished												
<b>SV311AKNL</b>	6 - 35	6 - 25, Cu 2.5 - 50 (v)	--	Cu 2.5 - 35		14	17.5	40	4	8	1.5	4
<b>SV312AKNL</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV309AK</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70		25	22	55	5	20	6.6	4
<b>SV310AK</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)		32	32.5	80	6	25	16	4
With shear head, tin-plated												
<b>SV312AKNLV</b>	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 50 Al 10 - 50	Cu 2.5 - 35 Al 10 - 35	Cu 2.5 - 35 Al 10 - 35		16	17.5	40	4	9	1.7	4
<b>SV319AKNLV</b>	10 - 70	10 - 70	50 - 70	35 - 70		22	24	57	5	15	7.6	4
<b>SV309AKV</b>	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	*	25	22	55	5	20	6.6	4
<b>SV310AKV</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)	*	32	32.5	80	6	25	16	4

## Screw connector with 4 screws



- ▶ For connecting various conductor types and materials, e.g. to DIN EN 60228 Cl. 1 and 2
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Reliable processing due to cable insertion control (dissimilar materials must not come into contact)

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Available with threaded pin or shear head
- Version with 4 screws

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

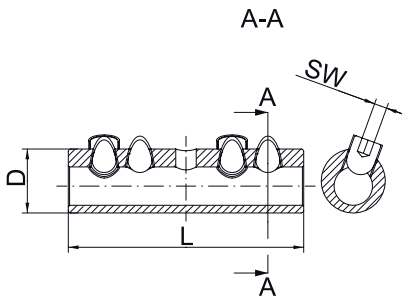
- Either bright or tin-plated

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded



Part No.	Nominal cross section mm <sup>2</sup>				Dimension mm			Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	re	rm	se	sm	D	L	AF			
<b>With threaded pin, bright finished</b>										
SV305	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	25	92	5	20	12	4
SV306	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 185 (r)	32	108	6	25	25	4
<b>With threaded pin, tin-plated</b>										
SV305V	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	25	92	5	20	12	4
SV306V	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	32	108	6	25	25	4
<b>With shear head, bright finished</b>										
SV305AK	16 - 95	16 - 95	50 - 95	35 - 70, 35 - 70 (r)	25	92	5	20	12	4
SV306AK	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	32	108	6	25	25	4
<b>With shear head, tin-plated</b>										
SV305AKV	16 - 95	16 - 95	50 - 95	35-95 (r), 35-70	25	92	5	20	12	4
SV306AKV	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	32	108	6	25	25	4



## Insulated screw connector



- ▶ For connecting various conductor types and materials, e.g. to DIN EN 60228 Cl. 1 and 2
- ▶ Ideal for connecting identical and different conductor cross-sections
- ▶ Reliable processing due to cable insertion control (dissimilar materials must not come into contact)

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Insulated body
- Version with 2 screws, without barrier
- Available with threaded pin or shear head

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

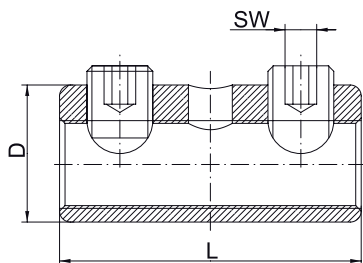
- Either bright or tin-plated

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

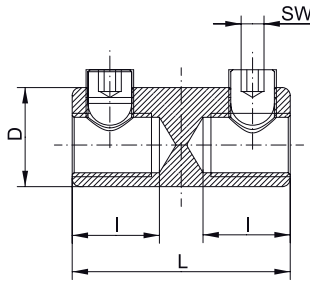
- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded



Part No.	Nominal cross section mm <sup>2</sup>				Dimension mm			Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	re	rm	se	sm	D	L	AF			
With threaded pin, bright finished										
<b>SV400</b>	6 - 35	6 - 25	50 - 70 (120°)	35 - 70	14	60	4	8	1.7	4
<b>SV410</b>	16-95	16-95	50-95	35-95 (r), 35-70	28.2	58.2	5	20	6	4
<b>SV420</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)	36	84	6	25	14.5	4
With threaded pin, tin-plated										
<b>SV405V</b>	10 - 70	10 - 70	50 - 70, 50 - 150 (120°)	35 - 70, 35 - 150	25	87	5	15	5	4
<b>SV420V</b>	35 - 50	35 - 185	50 - 185 (90°)	35 - 185 (r)	36	84	6	25	14.5	4
With shear head, bright finished										
<b>SV410AK</b>	16-95	16-95	50-95	35-95 (r), 35-70	28.2	58.2	5	20	6	4
<b>SV420AK</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	36	84	6	25	14.5	4



## Screw connector with barrier



- ▶ For connecting various conductor types and materials, e.g. to DIN EN 60228 Cl. 1 and 2
- ▶ Ideal for connecting identical and different conductor cross-sections

### Characteristics

- Special groove profile inside to destroy the oxidation layer when crimping
- Either with threaded pin or shear head, shear head partly fixed
- Version with 2 screws and barrier

### Material

- Insulated body: high-tensile aluminium alloy
- Screws: copper alloy, tin-plated

### Surface

- Either bright or tin-plated

### Technical instructions

- Refer to the installation instructions in the technical appendix on page i-8

### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, (r) = pre-rounded, (v) = compacted

Part No.	Nominal cross section mm <sup>2</sup>				Hint	Dimension mm				Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	re	rm	se	sm		D	I	L	AF			
With threaded pin, bright												
<b>SV430</b>	16-50	16-95	50 - 70 (120°), 50 - 95 (90°)	35 - 70, 35 - 95 (r)		28.2	23.6	58.2	5	20	6.6	4
<b>SV440</b>	35-50	35-185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)		36	34.5	84	6	25	16.0	4
With shear head, bright												
<b>SV430AK</b>	16 - 50	16 - 95	50 - 70 (120°), 50 - 95 (90°)	35 - 70, 35 - 95 (r)		28.2	23.6	58.2	5	20	6.6	4
<b>SV440AK</b>	35 - 50	35 - 185	50 - 150 (120°), 50 - 185 (90°)	35 - 150, 35 - 185 (r)	**	36	34.5	84	6	25	16.0	4

### Compact tap connectors with shear heads, three conductor cables



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers

#### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools
- With shear heads for the main conductor, fixed

#### Technical instructions

- A mounting instruction is included with every clamp

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded
- Creepage and elongation processes are compensated for by spring washers
- Sequence of contacting can be freely determined

Part No.	Main conductor		Tap conductor		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	se	sm	se	sm	la	lb	Width	AF			
<b>KSK1503</b>	70 - 150	150	95 (r)	6 - 70 (r)	84	76	45	5	20	0.35	1

### Compact tap connectors with shear heads, four conductor cables



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers

#### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools
- With shear heads for the main conductor, fixed

#### Technical instructions

- A mounting instruction is included with every clamp

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded
- Creepage and elongation processes are compensated for by spring washers
- Sequence of contacting can be freely determined

Part No.	Main conductor		Tap conductor		Dimension mm				Torque Nm	Weight/pcs. ~kg	Packing unit/pcs
	se	sm	se	sm	la	lb	Width	AF			
<b>KSK1504</b>	70 - 150	150	95 (r)	6-70 (r)	107	90	50	20	20	0.63	1
<b>KSK1854</b>	185	70-150	50	6-35	107	90	52	20	20	0.58	1

### Compact tap connectors, four conductor cables, for main conductor 25 - 50 mm<sup>2</sup>



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers



#### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools



#### Technical instructions

- A mounting instruction is included with every clamp



#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded
- Creepage and elongation processes are compensated for by spring washers
- Sequence of contacting can be freely determined



Part No.	Main conductor			Tap conductor		Dimension mm				Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	se	sm	rm	se	sm	la	lb	Width	AF			
<b>KSK504</b>	Cu 25 - 50, Al 35 - 50	Cu 25 - 50	Cu 25 - 50	50	6-35	88	75	50	5	15	0.46	1

### Compact tap connectors, four conductor cables, for main conductor 70 - 185 mm<sup>2</sup>



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers



#### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools
- With threaded pins for the main conductor



#### Technical instructions

- A mounting instruction is included with every clamp



#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded
- Creepage and elongation processes are compensated for by spring washers
- Sequence of contacting can be freely determined



Part No.	Main conductor			Tap conductor			Dimension mm				Torque Nm	Weight/ pcs. ~kg	Packing unit/pcs
	se	sm	re	se	sm	rm	la	lb	Width	AF			
<b>SKR1204</b>	120	70 - 95		50 (r)	6 - 35 (r)		90	77	50	5	20	0.46	1
<b>SKR150504</b>	150	70 - 150	50	50	6 - 35		93	80	50	5	20	0.46	1
<b>SKR1504</b>	70 - 150	150		95 (r)	6 - 70 (r)		107	90	46	5	20	0.62	1
<b>SKR1501504</b>	95 - 150	150		150	16 - 120	16 - 120	118	118	93	5	20	1.34	1
<b>SKR1854</b>	185	95 - 150		95 (r)	6 - 70		107	96	46	5	20	0.58	1



### Compact tap connectors, three conductor cables



- ▶ Suitable for main and branch conductors made from Al and Cu
- ▶ No need to cut the main conductor
- ▶ For use e.g. with energy suppliers

#### Characteristics

- VDE: can be installed under voltage with corresponding fully insulated assembly tools
- With threaded pins for the main conductor

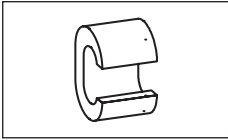
#### Technical instructions

- A mounting instruction is included with every clamp

#### Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded

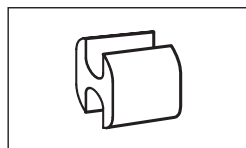
Part No.	Main conductor				Tap conductor		Dimension mm					Thread DIN 13	Weight/ pcs. ~kg	Packing unit/pcs
	se	sm	rm	re	se	sm	la	lb	Width	Bolts Circle dia.	AF			
<b>SKR1503</b>	70 - 150	70 - 150	70 - 150	70 - 150	6 - 70	6 - 95	84	76	45	90	5	M10x1/ M10	0.38	1



## Tool application chart

### C-Clamps

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page			Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die		
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	4 - 35	K354		246	331	331	○
	4 - 50	K18		248	339	339	○
		K22		250	345	345	○
Hand hydraulic crimping tools	4 - 50	HK6018		292	339	339	○
		HK60UNV	+UA18	473	339	339	○
		HK6022		294	345	345	○
		HK60UNV	+UA22	473	345	345	○
	10 - 70	HK12030		298	351	351	○
		HK12042		300	351	351	○
		HK120U		302	351	351	○
Battery powered crimping tools	4 - 35	EK354ML		262	331	331	○
		EK354		266	331	331	○
		EK505		268	335	335	○
	4 - 50	EK5018		270	339	339	○
		EK60UNV	+UA18	476	339	339	○
		EKM60UNV	+UA18	475	339	339	○
		EK6022		274	345	345	○
		EKM6022		272	345	345	○
		EK60UNV	+UA22	476	345	345	○
		EKM60UNV	+UA22	475	345	345	○
	10 - 70	EK12032		280	351	351	○
		EK12042		282	351	351	○
		EK120U		284	351	351	○
		EK135FT	+UA15T	286	351	351	○
		EK120UNV	+UA12T	477	351	351	○
Hydraulic crimping systems	4 - 50	THK18		306	339	339	○
		THK22		308	345	345	○
	10 - 70	HK122EL380		322	351	351	○
	10 - 185	HK252		320	356	356	○
		HK252EL380		323	356	356	○
Hydraulic crimping heads	4 - 50	PK18		306	339	339	○
		PK60UNV	+UA18	474	339	339	○
		PK22		308	345	345	○
		PK60UNV	+UA22	474	345	345	○
	10 - 70	PK12042		312	351	351	○
		PK120U		314	351	351	○
	10 - 185	PK252		316	356	356	○



### Tool application chart

#### H-Clamps

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	70	K22		250	345	○
Hand hydraulic crimping tools	70	HK6022		294	345	○
	70 - 120	HK12030		298	351	○
		HK12042		300	351	○
		HK120U		302	351	○
Battery powered crimping tools	70	EK6022		274	345	○
		EKM6022		272	345	○
		EK60UNV	+UA22	476	345	○
	70 - 120	EK12032		280	351	○
		EK12042		282	351	○
		EK120U		284	351	○
		EK135FT	+UA15T	286	351	○
		EK120UNV	+UA12T	477	351	○
Hydraulic crimping systems	70	THK22		308	345	○
	70 - 120	HK122EL380		322	351	○
		HK252		320	356	○
		HK252EL380		323	356	○
Hydraulic crimping heads	70	PK22		308	345	○
	70 - 120	PK12042		312	351	○
		PK120U		314	351	○
		PK252		316	356	○

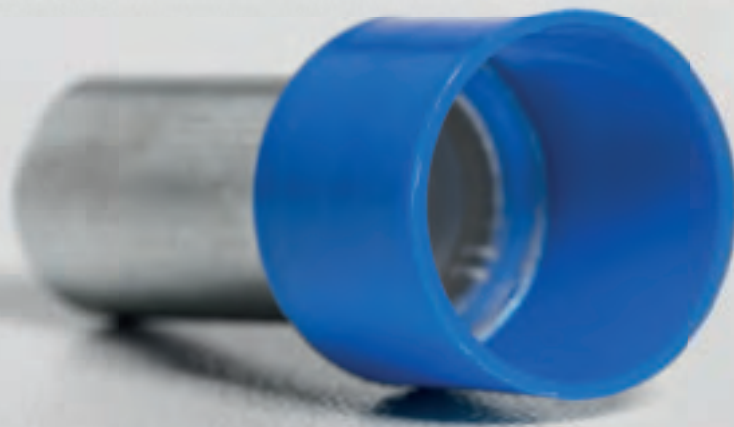






# PROTECTION - CABLE END-SLEEVES, INSULATED AND NON-INSULATED

Klauke joins together what belongs together. Cable end-sleeves prevent the conductors splicing before they are connected in clamps. All wires remain together. Easy-Entry insulation speeds up the insertion of wires into the sleeve. Fine-stranded conductors in particular benefit from a special trapezoidal crimp. No splicing, no time wasted. Your conductors are protected and can be cleanly processed



## In brief

- ▶ Stops conductors splicing
- ▶ Improved contact
- ▶ No risk of short-circuit due to bent strands
- ▶ Produced from high-quality copper
- ▶ Surface treatment with tin or in special versions with silver

## ▶ Simple diversity

We have to admit: Cable end-sleeves are a simple product. Due to the differing crimp shapes in the range and the high-quality materials used in production, the sleeves are just incredibly good.

- Broad range: To DIN standards, for short circuit-resistant conductors, in various lengths, with and without insulating collars

- Marked to DIN colour code
- Twin cable end-sleeves for connecting in confined areas
- High-quality material for optimum conducting properties
- CSA-approved

## ▶ Always the right crimp shape

We give every cable end-sleeve its perfect crimp shape. No matter where the conductor is to be laid later, we have a solution for you.

- The correct crimp shape for every connecting terminal
- Crimp shapes matched to the DIN dimensions
- For compacted conductors
- Connect without risk of short-circuit

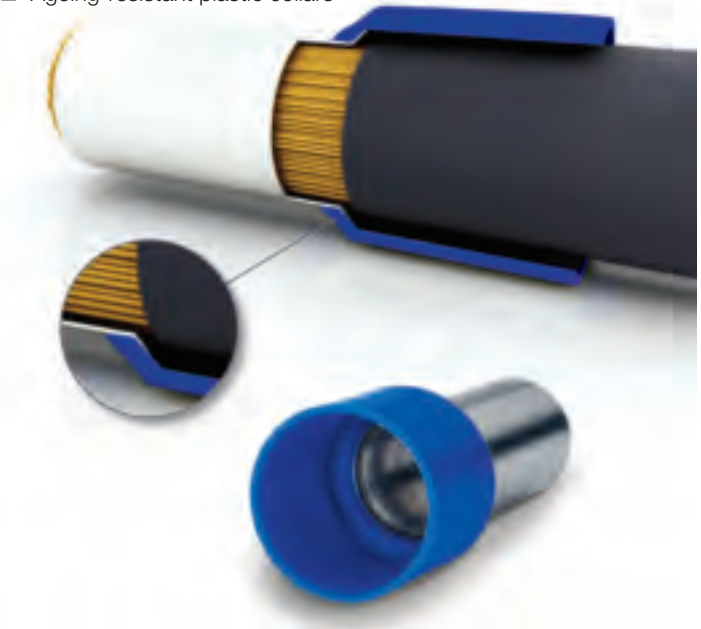


The easy-entry insulation enables fast insertion of conductors with no splicing.

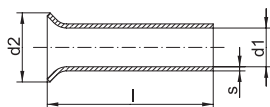
## ▶ Easy-Entry insulation

The special Easy-Entry insulation makes it easier to insert the conductor into the sleeves. In addition, the insulation is highly-resistant, to temperatures of up to 105 °C for example.

- Easy-Entry insulation for convenient insertion of the conductor
- Temperature-resistant to 105 °C
- No toxic vapours in case of fire
- Ageing-resistant plastic collars



## Cable end-sleeves to DIN, Cu



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Optimal cable entry due to widened sleeve



### Characteristics

- To DIN 46228, part 1 and similar



### Material

- Copper (EN13600)

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 150

### Additional information

- Silvered version also available, without Part Number appendix "V", exception: Part Number 705V in silvered version = Part No. 7050
- \* = not standardised

Nominal cross section mm <sup>2</sup>	Part No.	Hint	Dimension mm				Weight/1000 pcs. ~ kg	Packing unit/pcs
			d1	d2	l	s		
0.25	<b>695V</b>	*	0.75	1.7	5	0.15	0.02	1000
	<b>697V</b>	*	0.75	1.7	7	0.15	0.03	1000
0.34	<b>705V</b>	*	0.85	1.8	5	0.15	0.02	1000
	<b>707V</b>	*	0.85	1.8	7	0.15	0.03	1000
0.5	<b>71S6V</b>		1.00	2.1	6	0.15	0.03	1000
	<b>71S8V</b>	*	1.00	2.1	8	0.15	0.04	1000
	<b>71S10V</b>		1.00	2.1	10	0.15	0.05	1000
0.75	<b>716V</b>		1.20	2.3	6	0.15	0.04	1000
	<b>718V</b>	*	1.20	2.3	8	0.15	0.05	1000
	<b>7110V</b>		1.20	2.3	10	0.15	0.06	1000
	<b>7112V</b>	*	1.20	2.3	12	0.15	0.08	1000
1	<b>7115V</b>	*	1.20	2.3	15	0.15	0.09	1000
	<b>72S6V</b>		1.40	2.5	6	0.15	0.04	1000
	<b>72S8V</b>	*	1.40	2.5	8	0.15	0.06	1000
	<b>72S10V</b>		1.40	2.5	10	0.15	0.07	1000
	<b>72S12V</b>	*	1.40	2.5	12	0.15	0.08	1000
1.5	<b>72S15V</b>	*	1.40	2.5	15	0.15	0.10	1000
	<b>726V</b>	*	1.70	2.8	6	0.15	0.05	1000
	<b>727V</b>		1.70	2.8	7	0.15	0.06	1000
	<b>728V</b>	*	1.70	2.8	8	0.15	0.07	1000
	<b>7210V</b>		1.70	2.8	10	0.15	0.09	1000
	<b>7212V</b>		1.70	2.8	12	0.15	0.10	1000
	<b>7215V</b>	*	1.70	2.8	15	0.15	0.13	1000
	<b>7218V</b>		1.70	2.8	18	0.15	0.15	1000
2.5	<b>7220V</b>	*	1.70	2.8	20	0.15	0.17	1000
	<b>737V</b>		2.20	3.4	7	0.15	0.08	1000
	<b>738V</b>	*	2.20	3.4	8	0.15	0.09	1000
	<b>7310V</b>		2.20	3.4	10	0.15	0.11	1000
	<b>7312V</b>		2.20	3.4	12	0.15	0.13	1000
	<b>7315V</b>	*	2.20	3.4	15	0.15	0.17	1000
	<b>7318V</b>		2.20	3.4	18	0.15	0.20	1000
	<b>7320V</b>	*	2.20	3.4	20	0.15	0.22	1000

## Cable end-sleeves nach DIN, Cu

Nominal cross section mm <sup>2</sup>	Part No.	Hint	Dimension mm				Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			d1	d2	l	s		
4	<b>748V</b>	*	2.80	4.0	8	0.20	0.14	1000
	<b>749V</b>		2.80	4.0	9	0.20	0.16	1000
	<b>7410V</b>	*	2.80	4.0	10	0.20	0.17	1000
	<b>7412V</b>		2.80	4.0	12	0.20	0.20	1000
	<b>7415V</b>		2.80	4.0	15	0.20	0.27	1000
	<b>7418V</b>		2.80	4.0	18	0.20	0.32	1000
	<b>7420V</b>	*	2.80	4.0	20	0.20	0.35	1000
6	<b>7510V</b>		3.50	4.7	10	0.20	0.23	100
	<b>7512V</b>		3.50	4.7	12	0.20	0.27	100
	<b>7515V</b>		3.50	4.7	15	0.20	0.34	100
	<b>7518V</b>		3.50	4.7	18	0.20	0.40	100
	<b>7520V</b>	*	3.50	4.7	20	0.20	0.45	100
	<b>7525V</b>	*	3.50	4.7	25	0.20	0.56	100
10	<b>7610V</b>	*	4.5	5.8	10	0.2	0.27	100
	<b>7612V</b>		4.5	5.8	12	0.2	0.33	100
	<b>7615V</b>		4.5	5.8	15	0.2	0.41	100
	<b>7618V</b>		4.5	5.8	18	0.2	0.49	100
	<b>7620V</b>	*	4.5	5.8	20	0.2	0.55	100
	<b>7625V</b>	*	4.5	5.8	25	0.2	0.68	100
16	<b>7712V</b>		5.8	7.5	12	0.2	0.43	100
	<b>7715V</b>		5.8	7.5	15	0.2	0.53	100
	<b>7718V</b>		5.8	7.5	18	0.2	0.60	100
	<b>7720V</b>	*	5.8	7.5	20	0.2	0.70	100
	<b>7725V</b>		5.8	7.5	25	0.2	0.87	100
	<b>7732V</b>		5.8	7.5	32	0.2	1.11	100
25	<b>7812V</b>	*	7.3	9.5	12	0.2	0.80	50
	<b>7815V</b>		7.3	9.5	15	0.2	0.99	50
	<b>7818V</b>		7.3	9.5	18	0.2	1.18	50
	<b>7820V</b>	*	7.3	9.5	20	0.2	1.31	50
	<b>7825V</b>		7.3	9.5	25	0.2	1.63	50
	<b>7828V</b>	*	7.3	9.5	28	0.2	1.82	50
	<b>7832V</b>		7.3	9.5	32	0.2	2.07	50
35	<b>7912V</b>	*	8.3	11.0	12	0.2	0.90	50
	<b>7915V</b>	*	8.3	11.0	15	0.2	1.12	50
	<b>7918V</b>		8.3	11.0	18	0.2	1.34	50
	<b>7920V</b>	*	8.3	11.0	20	0.2	1.48	50
	<b>7922V</b>	*	8.3	11.0	22	0.2	1.63	50
	<b>7925V</b>		8.3	11.0	25	0.2	1.80	50
	<b>7930V</b>	*	8.3	11.0	30	0.2	2.20	50
50	<b>7932V</b>		8.3	11.0	32	0.2	2.35	50
	<b>8018V</b>		10.5	13.0	18	0.3	1.69	50
	<b>8022V</b>	*	10.5	13.0	22	0.3	2.05	50
	<b>8025V</b>		10.5	13.0	25	0.3	2.32	50
	<b>8030V</b>	*	10.5	13.0	30	0.3	2.77	50
	<b>8032V</b>		10.5	13.0	32	0.3	2.95	50

See next page



### Cable end-sleeves nach DIN, Cu

Nominal cross section mm <sup>2</sup>	Part No.	Hint	Dimension mm				Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			d1	d2	l	s		
70	<b>8122V</b>	*	12.7	15.0	22	0.4	3.31	25
	<b>8125V</b>	*	12.7	15.0	25	0.4	3.75	25
	<b>8130V</b>	*	12.7	15.0	30	0.4	4.48	25
	<b>8132V</b>	*	12.7	15.0	32	0.4	4.78	25
95	<b>8225V</b>	*	14.7	17.0	25	0.4	4.32	25
	<b>8230V</b>	*	14.7	17.0	30	0.4	5.17	25
	<b>8232V</b>	*	14.7	17.0	32	0.4	5.17	25
	<b>8234V</b>	*	14.7	17.0	34	0.4	5.84	25
120	<b>8330V</b>	*	16.7	19.0	30	0.5	7.35	25
	<b>8332V</b>	*	16.7	19.0	32	0.5	7.83	25
	<b>8334V</b>	*	16.7	19.0	34	0.5	8.31	25
	<b>8338V</b>	*	16.7	19.0	38	0.5	9.28	25
150	<b>8340V</b>	*	16.7	19.0	40	0.5	9.76	25
	<b>8432V</b>	*	18.7	21.0	32	0.5	8.75	25
	<b>8434V</b>	*	18.7	21.0	34	0.5	9.28	25
	<b>8438V</b>	*	18.7	21.0	38	0.5	10.36	25
185	<b>8440V</b>	*	18.7	21.0	40	0.5	10.89	25
	<b>8532V</b>	*	20.2	23.5	32	0.6	11.38	25
240	<b>8540V</b>	*	20.2	23.5	40	0.6	14.17	25
	<b>8634V</b>	*	23.0	26.0	34	0.5	11.25	25
	<b>8640V</b>	*	23.0	26.0	40	0.5	13.23	25

## Insulated cable end-sleeves to DIN, with Easy-Entry



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Halogen-free

### Characteristics

- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105° C

### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

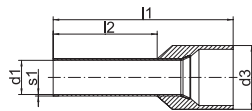
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 150

### Additional information

- \* = not standardised
- \*\*\* = quantities in one bag



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.5	4696	□		1.0	3.1	12	6	0.15	0.070	1000
	4698	□		1.0	3.1	14	8	0.15	0.070	1000
	GR4698	□	***	1.0	3.1	14	8	0.15	0.070	500
	46910	□		1.0	3.1	16	10	0.15	0.085	1000
0.75	4706	■		1.2	3.3	12	6	0.15	0.080	1000
	4708	■		1.2	3.3	14	8	0.15	0.080	1000
	GR4708	■	***	1.2	3.3	14	8	0.15	0.080	500
	47010	■		1.2	3.3	16	10	0.15	0.100	1000
1	47012	■		1.2	3.3	18	12	0.15	0.105	1000
	4716	■		1.4	3.5	12	6	0.15	0.090	1000
	4718	■		1.4	3.5	14	8	0.15	0.100	1000
	GR4718	■	***	1.4	3.5	14	8	0.15	0.100	500
1.5	47110	■		1.4	3.5	16	10	0.15	0.120	1000
	47112	■		1.4	3.5	18	12	0.15	0.125	1000
	4726	■	*	1.7	4.0	12	6	0.15	0.105	1000
	4728	■		1.7	4.0	14	8	0.15	0.110	1000
	GR4728	■	***	1.7	4.0	14	8	0.15	0.110	500
	47210	■		1.7	4.0	16	10	0.15	0.130	1000
2.5	47212	■		1.7	4.0	18	12	0.15	0.150	1000
	47218	■		1.7	4.0	24	18	0.15	0.190	1000
	4738	■		2.2	4.7	14	8	0.15	0.150	1000
	GR4738	■	***	2.2	4.7	14	8	0.15	0.150	500
4	47312	■		2.2	4.7	18	12	0.15	0.200	1000
	47318	■		2.2	4.7	24	18	0.15	0.250	1000
	47410	■		2.8	5.4	17	10	0.20	0.210	100
	47412	■		2.8	5.4	20	12	0.20	0.250	100
6	47418	■		2.8	5.4	26	18	0.20	0.320	100
	47512	■		3.5	6.9	20	12	0.20	0.350	100
	47518	■		3.5	6.9	26	18	0.20	0.460	100
10	47612	■		4.5	8.4	22	12	0.20	0.450	100
	47618	■		4.5	8.4	28	18	0.20	0.650	100

See next page



## Insulated cable end-sleeves to DIN, with Easy-Entry

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
16	47712	■		5.8	9.6	24	12	0.20	0.650	100
	47718	■		5.8	9.6	28	18	0.20	0.800	100
25	47816	■		7.3	12.0	30	16	0.20	1.600	50
	47818	■		7.3	12.0	30	18	0.20	1.700	50
	47822	■		7.3	12.0	36	22	0.20	2.000	50
35	47916	■		8.3	13.5	30	16	0.20	1.900	50
	47918	■		8.3	13.5	30	18	0.20	2.100	50
	47925	■		8.3	13.5	39	25	0.20	2.500	50
50	48020	■		10.3	16.0	36	20	0.30	3.300	50
	48025	■		10.3	16.0	40	25	0.30	3.600	50
70	48121	■	*	13.5	17.2	37	21	0.40	4.620	25
95	48225	■	*	14.5	19.2	44	25	0.40	6.000	25
120	48327	■	*	16.7	21.4	48	27	0.45	7.850	25
150	48432	■	*	19.5	25.0	58	32	0.50	12.330	25

## Insulated cable end-sleeves to DIN with Easy-Entry, colour code 1



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Halogen-free

### Characteristics

- To DIN 46228, part 4, (0.5 - 50 mm<sup>2</sup>)
- Heat resistant to 105° C

### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

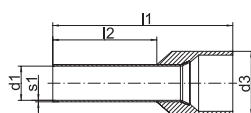
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 150

### Additional information




































- \* = not standardised
- \*\* = quantities in one bag



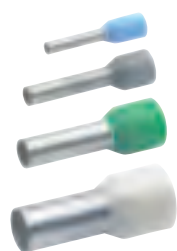
Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.14	166GR	■	*	0.7	2.1	10.0	6	0.15	0.035	1000
	166GRL	■	*	0.7	2.1	12.0	8	0.15	0.040	1000
0.25	167H	■	*	0.8	2.3	10.0	6	0.15	0.045	1000
	167HL	■	*	0.8	2.3	12.0	8	0.15	0.050	1000
0.34	168T	■	*	0.8	2.5	10.0	6	0.15	0.045	1000
	168TL	■	*	0.8	2.5	12.0	8	0.15	0.050	1000
0.5	1690K	■		1.0	3.1	12.0	6	0.15	0.070	1000
	1690	■		1.0	3.1	14.0	8	0.15	0.070	1000
	GR1690	■	**	1.0	3.1	14.0	8	0.15	0.070	500
	1690H	■		1.0	3.1	16.0	10	0.15	0.085	1000

See next page

## Insulated cable end-sleeves to DIN with Easy-Entry, colour code 1

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.75	170WK			1.2	3.3	12.0	6	0.15	0.080	1000
	170W			1.2	3.3	14.0	8	0.15	0.080	1000
	GR170W		**	1.2	3.3	14.0	8	0.15	0.080	500
	170WH			1.2	3.3	16.0	10	0.15	0.100	1000
	170WL			1.2	3.3	18.0	12	0.15	0.105	1000
1	171GK			1.4	3.5	12.0	6	0.15	0.090	1000
	171G			1.4	3.5	14.0	8	0.15	0.100	1000
	GR171G		**	1.4	3.5	14.0	8	0.15	0.100	500
	171GH			1.4	3.5	16.0	10	0.15	0.120	1000
	171GL			1.4	3.5	18.0	12	0.15	0.125	1000
1.5	172RK			1.7	4.0	12.0	6	0.15	0.105	1000
	172RO			1.7	4.0	14.0	8	0.15	0.110	1000
	GR172RO		**	1.7	4.0	14.0	8	0.15	0.110	500
	172RH			1.7	4.0	16.0	10	0.15	0.130	1000
	172RM			1.7	4.0	18.0	12	0.15	0.140	1000
2.5	172RL			1.7	4.0	24.0	18	0.15	0.190	1000
	173B			2.2	4.7	14.0	8	0.15	0.150	1000
	GR173B		**	2.2	4.7	14.0	8	0.15	0.150	500
	173BH			2.2	4.7	18.0	12	0.15	0.200	1000
	173BL			2.2	4.7	24.0	18	0.15	0.250	1000
4	174GR			2.8	5.4	17.0	10	0.20	0.210	100
	174GRH			2.8	5.4	20.0	12	0.20	0.250	100
	174GRL			2.8	5.4	26.0	18	0.20	0.320	100
6	175S			3.5	6.9	20.0	12	0.20	0.350	100
	175SL			3.5	6.9	26.0	18	0.20	0.460	100
10	176E			4.5	8.4	22.0	12	0.20	0.450	100
	176EL			4.5	8.4	28.0	18	0.20	0.650	100
16	177GR			5.8	9.6	24.0	12	0.20	0.650	100
	177GRL			5.8	9.6	28.0	18	0.20	0.800	100
25	178BR			7.3	12.0	30.0	16	0.20	1.600	50
	178BRL			7.3	12.0	36.0	22	0.20	2.000	50
35	179B			8.3	13.5	30.0	16	0.20	1.900	50
	179BL			8.3	13.5	39.0	25	0.20	2.500	50
50	1800			10.3	16.0	36.0	20	0.30	3.300	50
	1800L			10.3	16.0	40.0	25	0.30	4.000	50

## Insulated cable end-sleeves to DIN with Easy-Entry, colour code 2



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Halogen-free

### Characteristics

- To DIN 46228, part 4, (0.5 - 25 mm<sup>2</sup>)
- Heat resistant to 105° C

### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

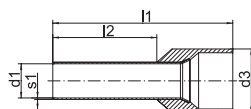
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 150

### Additional information

- \* = not standardised
- \*\* = quantities in one bag



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
0.14	1666	■	*	0.7	2.1	10.0	6	0.15	0.035	1000
	1668	■	*	0.7	2.1	12.0	8	0.15	0.040	1000
0.25	1676	■	*	0.8	2.3	10.0	6	0.15	0.045	1000
	1678	■	*	0.8	2.3	12.0	8	0.15	0.050	1000
0.34	1686	■	*	0.8	2.5	10.0	6	0.15	0.045	1000
	1688	■	*	0.8	2.5	12.0	8	0.15	0.050	1000
0.5	1696	□		1.0	3.1	12.0	6	0.15	0.070	1000
	1698	□		1.0	3.1	14.0	8	0.15	0.080	1000
	GR1698	□	**	1.0	3.1	14.0	8	0.15	0.080	500
0.75	1706	■		1.2	3.3	12.0	6	0.15	0.080	1000
	1708	■		1.2	3.3	14.0	8	0.15	0.095	1000
	GR1708	■	**	1.2	3.3	14.0	8	0.15	0.095	500
1	1716	■		1.4	3.5	12.0	6	0.15	0.085	1000
	1718	■		1.4	3.5	14.0	8	0.15	0.100	1000
	GR1718	■	**	1.4	3.5	14.0	8	0.15	0.100	500
	1726	■		1.7	4.0	12.0	6	0.15	0.100	1000
1.5	1728	■		1.7	4.0	14.0	8	0.15	0.120	1000
	GR1728	■	**	1.7	4.0	14.0	8	0.15	0.120	500
	17210	■		1.7	4.0	16.0	10	0.15	0.130	1000
	17212	■		1.7	4.0	18.0	12	0.15	0.140	1000
	17218	■		1.7	4.0	24.0	18	0.15	0.220	1000
2.5	1738	■		2.2	4.7	14.0	8	0.15	0.140	1000
	GR1738	■	**	2.2	4.7	14.0	8	0.15	0.140	500
	17312	■		2.2	4.7	18.0	12	0.15	0.200	1000
	17318	■		2.2	4.7	24.0	18	0.15	0.280	1000
4	17410	■		2.8	5.4	17.0	10	0.20	0.260	100
	17412	■		2.8	5.4	20.0	12	0.20	0.300	100
	17418	■		2.8	5.4	26.0	18	0.20	0.390	100
6	17512	■		3.5	6.9	20.0	12	0.20	0.410	100
	17518	■		3.5	6.9	26.0	18	0.20	0.530	100

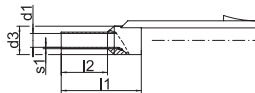
See next page



## Insulated cable end-sleeves to DIN with Easy-Entry, colour code 2

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Hint	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
				d1	d3	l1	l2	s1		
10	17612	■		4.5	8.4	22.0	12	0.20	0.550	100
	17618	■		4.5	8.4	28.0	18	0.20	0.710	100
16	17712	□		5.8	9.6	24.0	12	0.20	0.660	100
	17718	□		5.8	9.6	28.0	18	0.20	0.850	100
25	17816	■		7.3	12.0	30.0	16	0.20	1.500	50
	17818	■		7.3	12.0	30.0	18	0.20	1.550	50
	17822	■		7.3	12.0	36.0	22	0.20	2.000	50

## Insulated cable end-sleeves with lug



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ With identification system for max. 6 identification rings
- ▶ Halogen-free

### Characteristics

- Dimensions to DIN 46228, part 4
- Heat resistant to 105° C

### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 150

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
			d1	d3	l1	l2	s1		
0.5	3698	□	1.0	3.1	13.0	8	0.15	0.16	1000
0.75	3708	■	1.2	3.2	13.5	8	0.15	0.16	1000
1	3718	■	1.4	3.4	13.5	8	0.15	0.18	1000
1.5	3728	■	1.7	3.9	13.5	8	0.15	0.20	1000
2.5	3738	■	2.2	4.7	14.5	8	0.15	0.22	1000

## Designation ring and insert fork



► For identifying the insulated cable end-sleeves with lugs

### Characteristics

- Differing numbers / letters in the designation rings
- Packaging unit in booklet format, 200 of each symbol
- Insert fork A300 for inserting in the designation ring on the insulated cable end-sleeves with tabs

### Additional information

- \* = without letters "I" and "O"

Part No.	Colour	Hint	Packing unit/pcs
<b>Designation rings</b>			
380/-	■		1 booklet
380/+	■		1 booklet
380/0 to 9	■		1 booklet
380/A to Z	■	*	1 booklet
<b>Insert fork</b>			
A300			1

## Insulated cable end-sleeves for short circuit resistant conductors



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6  
► For short circuit resistant conductors (e.g. NSGAFÖU)  
► Halogen-free



### Characteristics

- Heat resistant to 105° C
- Easy-Entry insulation for simple cable insertion
- Colour-coded cross-section assignment



### Material

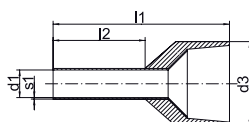
- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

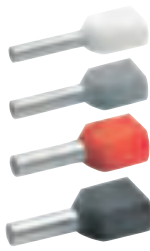
### Technical instructions

- Tool: see page 150



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm					Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			d1	d3	l1	l2	s1		
1.5	4328	■	1.7	8.1	17.5	8	0.15	0.22	100
	43210	■	1.7	8.1	19.5	10	0.15	0.27	100
2.5	4338	■	2.2	8.6	17.5	8	0.15	0.24	100
	43312	■	2.2	8.6	21.5	12	0.15	0.36	100
4	43410	■	2.9	10.5	19.5	10	0.20	0.36	100
6	43512	■	3.5	11.0	23.0	12	0.20	0.49	100
10	43612	■	4.5	12.5	24.0	12	0.20	0.65	100
16	43712	■	5.8	14.5	25.5	12	0.20	0.93	100

## Insulated twin cable end-sleeves



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ For looping of clamps
- ▶ Colour-coding following DIN 46228 part 4 (0.5 - 16 mm<sup>2</sup>)
- ▶ Halogen-free

### Characteristics

- Heat resistant to 105° C

### Material

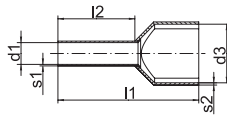
- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

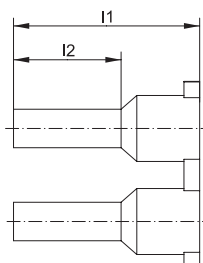
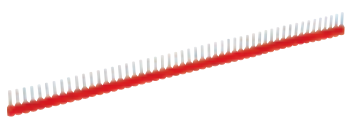
### Technical instructions

- Tool: see page 153



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm						Weight/ 1000 pcs. ~ kg	Packing unit/ pcs
			d1	d3	l1	l2	s1	s2		
2 x 0.25	<b>8678</b>		1.20	2.3/3.9	15.0	8	0.15	0.25	0.110	1000
2 x 0.34	<b>8688</b>		1.20	2.3/3.9	15.0	8	0.15	0.25	0.110	1000
2 x 0.5	<b>8698</b>		1.40	3.0/5.2	15.0	8	0.15	0.25	0.110	1000
2 x 0.75	<b>8708</b>		1.70	3.3/5.5	15.0	8	0.15	0.25	0.130	1000
	<b>87010</b>		1.70	3.3/5.5	17.0	10	0.15	0.25	0.150	1000
2 x 1	<b>8718</b>		2.00	4.0/6.0	15.0	8	0.15	0.30	0.170	1000
	<b>87110</b>		2.00	4.0/6.0	17.0	10	0.15	0.30	0.170	1000
2 x 1.5	<b>8728</b>		2.20	4.2/7.2	16.0	8	0.15	0.30	0.183	1000
	<b>87212</b>		2.20	4.2/7.2	20.0	12	0.15	0.30	0.237	1000
2 x 2.5	<b>87310</b>		2.80	4.8/8.4	18.5	10	0.20	0.30	0.312	100
	<b>87313</b>		2.80	4.8/8.4	21.5	13	0.20	0.30	0.340	100
2 x 4	<b>87412</b>		3.70	5.7/9.6	23.0	12	0.20	0.40	0.467	100
2 x 6	<b>87514</b>		4.80	7.7/10.8	26.0	14	0.20	0.40	0.730	100
2 x 10	<b>87614</b>		6.40	8.0/13.8	26.0	14	0.20	0.40	0.884	100
2 x 16	<b>87714</b>		8.20	10.4/19.2	30.0	14	0.20	0.40	1.273	100

## Insulated cable end-sleeves, strip form



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Crimped cable end-sleeves for simple mounting to cable clamps
- ▶ Halogen-free



### Characteristics

- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105° C



### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			l1	l2		
0.5	ST9698		14	8	0.100	500
0.75	ST9708		14	8	0.100	500
1	ST9718		14	8	0.100	500
1.5	ST9728		14	8	0.100	500
2.5	ST9738		14	8	0.100	500

## Insulated cable end-sleeves, small coil



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for optimal cable insertion
- ▶ Automatic processing due to coil shape
- ▶ Halogen-free



### Characteristics

- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105° C



### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			l1	l2		
0.5	BAK9698		14	8	0.136	1100
0.75	BAK9708		14	8	0.154	1100
1	BAK9718		14	8	0.187	800
1.5	BAK9728		14	8	0.200	800
2.5	BAK9738		14	8	0.300	500



## Insulated cable end-sleeves, large coil



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Easy-Entry insulation for splice-free cable insertion
- ▶ Automatic processing due to coil shape
- ▶ Halogen-free

### Characteristics






- Colour-coding and tube dimension to DIN 46228, part 4
- Heat resistant to 105° C

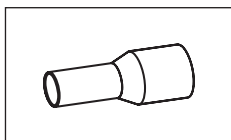
### Material

- Copper (EN13600)
- Synthetic material: polypropylene

### Surface

- Tin-plated to protect against corrosion

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/ 1000 pcs. ~ kg	Packing unit/pcs
			l1	l2		
0.5	<b>BAG9698</b>		14	8	0.120	10000
0.75	<b>BAG9708</b>		14	8	0.130	10000
1	<b>BAG9718</b>		14	8	0.160	7500
1.5	<b>BAG9728</b>		14	8	0.173	7500
2.5	<b>BAG9738</b>		14	8	0.230	5000

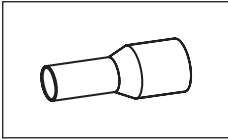


### Tool application chart

#### Cable end-sleeves to DIN 46228, part 1 and DIN 46228, part 4 Insulated cable end-sleeves for short circuit resistant conductors

##### Part 1 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0.08 - 10	K303		217		◇
		K304K		217		◇
		K306K		217		◇
	0.14 - 2.5	K1		212		□
		K48		212		□
	0.14 - 6	K32		213		□
		K37		214		□
	0.14 - 10	K3014K		218		◇
		K4		210		∩
	0.5 - 6	K36		213		□
		K382		215		◇
	0.5 - 16	K3		211		∩
	1.5 - 6	K46		210		∩
	6 - 16	K34		214		□
	10 - 25	K39		215		□
	10 - 35	K35		211		∩
	10 - 50	K271		218		∩
		K28		219		□
	50 - 95	K272		219		∩
		K29		220		□
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0.14 - 10	K507		243		□
		KP1	+KP303	240		◇
		KP1L	+KP303	240		◇
	0.14 - 50	K50		244	326	□
		EK50ML		254	326	□
	1.5 - 6	KP1	+KP351	240		○
		KP1L	+KP351	240		○
	2.5 - 16	KP1	+KP304	240		◇
		KP1L	+KP304	240		◇
	10 - 16	KP1	+KP352	240		○
		KP1L	+KP352	240		○
	10 - 50	K354		246	332	□
	10 - 95	K18		248	340	□ ∩
	10 - 240	K22		250	346	□ ∩



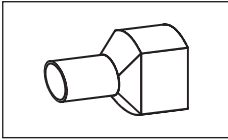
## Tool application chart

**Cable end-sleeves to DIN 46228, part 1 and DIN 46228, part 4  
Insulated cable end-sleeves for short circuit resistant conductors**

Part 2 of 2

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile		
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die			
Hand hydraulic crimping tools	10 - 95	HK6018		292	340			
		HK60UNV	+UA18	473	340			
	10 - 240	HK6022		294	346			
		HK60UNV	+UA22	473	351			
	25 - 240	HK12030		298	351			
		HK12042		300	351			
		HK120U		302				
	Battery powered crimping tools	0.14 - 50	EK1550ML		258			
		10 - 50	EK354ML		262	332		
EK354				266	332			
EK505				268	326			
10 - 95			EK5018		270	340		
		EK60UNV	+UA18	476	340			
		EKM60UNV	+UA18	475	340			
10 - 240		EK6022		274	346			
		EKM6022		272	346			
		EK60UNV	+UA22	476	346			
		EKM60UNV	+UA22	475	346			
		25 - 240	EK12032		280	351		
EK12042				282	351			
EK120U				284	351			
EK135FT			+UA15T	286	351			
EK120UNV			+UA12T	284	351			
Hydraulic crimping systems		10 - 95	THK18		306	340		
		10 - 150	THK22		308	346		
	25 - 240	HK252		320	357			
Hydraulic crimping heads	10 - 95	PK18		306	340			
		PK60UNV	+UA18	474	340			
	10 - 240	PK22		308	346			
		PK60UNV	+UA22	474	346			
	25 - 240	PK12042		312	351			
		PK120U		314	351			
		PK252		316	357			





## Tool application chart

### Insulated twin cable end-sleeves

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	2x0.5 - 2x2.5	K32		213		
		K382		215		
	2x0.5 - 2x4	K303		217		
		K36		213		
	2x0.5 - 2x6	K306K		217		
		K304K		217		
		K3014K		218		
	2x4 - 2x6	K34		214		
	2x4 - 2x16	K271		218		
		K28		219		
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	2x0.5 - 2x4	KP1	+KP303	240		
		KP1L	+KP303	240		
	2x4 - 2x6	KP1		240		
	2x4 - 2x16	K354		246	332	
		K18		248	340	
K22		250	346			
Hand hydraulic crimping tools	2x4 - 2x16	HK6018		292	340	
		HK60UNV	+UA18	473	340	
		HK6022		294	346	
		HK60UNV	+UA22	473	346	
Battery powered crimping tools	2x4 - 2x16	EK354ML		262	346	
		EK354		266	346	
		EK505		268	336	
		EK5018		270	340	
		EK60UNV	+UA18	476	340	
		EKM60UNV	+UA18	475	340	
		EK6022		274	346	
		EKM6022		272	346	
		EK60UNV	+UA22	476	346	
		EKM60UNV	+UA22	475	346	
Hydraulic crimping systems	2x4-2x16	THK18		306	340	
		THK22		308	346	
Hydraulic crimping heads	2x4-2x16	PK18		306	340	
		PK60UNV	+UA18	474	340	
		PK22		308	346	
		PK60UNV	+UA22	474	346	



# PRECISION - CABLE CONNECTIONS, INSULATED AND NON-INSULATED

Electrical power is the product of voltage and current strength. An optimum connection guarantees to transfer this power without thermal losses. This requires materials, design and tool to be correctly processed and matched to one another. If you want optimum power at all times, you can rely on Klauke's best work.



#### In brief

- ▶ High requirements in detail
- ▶ Solutions available for small cross-sections
- ▶ Broad range of versions
- ▶ Optimum connection without thermal loss
- ▶ Grooved profile for improved conductor hold

**► Easy insulation**

All insulation is produced in the Easy-Entry version, for simple cable insertion without splicing. For small ranges with big effect.

- Cable connections with nominal cross-sections from 0.1 mm<sup>2</sup> to 6 mm<sup>2</sup>
- Resistant to temperatures of up to 105 °C

- Flame retardant polyamide insulation: No toxic vapours in case of fire
- Halogen-free
- Insensitive to corrosion due to tinning under the insulation
- Simple processing thanks to Easy-Entry
- Grooved profile on the inside for improved contacting

**► More hold with grooved profile**

The detail is key. Not only are there numerous models of Klauke tabs and receptacles, they are also equipped with special features. No matter whether as a standardised connector or with grooved profile for improved contacting - Klauke will always provide the right feature for your requirements.

- Broad range of models
- All-purpose
- Also as standardised connectors with various tab widths
- Available with strain relief
- Fully-insulated receptacles
- Grooved profile and additional copper ring in the insulation area for higher stresses



**► Quality in detail**

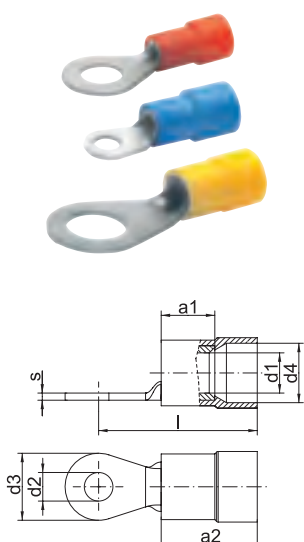
In a machine, everything has to pull together. For the machine to run, every component has to function. Even when it comes to small parts, better to go for high quality products with a high capacity, for our receptacles with snap-in point for example. The snap-in point guarantees a reliable connection even after repeated insertions.

- High conductivity and reliable insulation thanks to high-quality materials
- Improved spring properties by the use of bronze





## Insulated solderless terminals



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ To DIN 46237
- ▶ High-quality brazing process in the crimp area
- ▶ Insulation sleeve halogen-free

### Characteristics

- Heat resistant to 105° C
- Easy-Entry insulation for simple cable insertion
- Cross-section-dependent colour-coding

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175

### Additional information

- \* = not standardised
- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Hint	Dimension mm								Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	d1	d2	d3	d4	l	s		
0.1 - 0.4	--	<b>6192</b>	□	*	--	--	1.0	2.3	5.0	2.2	14.0	0.5	0.020	100
	--	<b>61925</b>	□	*	--	--	1.0	2.6	5.0	2.2	14.0	0.5	0.020	100
	--	<b>6193</b>	□	*	--	--	1.0	3.3	5.0	2.2	14.0	0.5	0.020	100
	--	<b>61935</b>	□	*	--	--	1.0	3.8	6.5	2.2	16.0	0.5	0.025	100
	--	<b>6194</b>	□	*	--	--	1.0	4.4	7.0	2.2	16.0	0.5	0.025	100
	--	<b>6195</b>	□	*	--	--	1.0	5.4	8.0	2.2	15.0	0.5	0.025	100
0.5 - 1	2.5 - 1	<b>62025</b>	■		5	10.5	1.6	2.8	6.0	4.5	16.5	0.8	0.060	100
	3.0 - 1	<b>6203</b>	■		5	10.5	1.6	3.2	6.0	4.5	16.5	0.8	0.060	100
	3.5 - 1	<b>62035</b>	■		5	10.5	1.6	3.7	6.0	4.5	16.5	0.8	0.550	100
	4.0 - 1	<b>6204</b>	■		5	10.5	1.6	4.3	8.0	4.5	17.5	0.8	0.070	100
	5.0 - 1	<b>6205</b>	■		5	10.5	1.6	5.3	10.0	4.5	18.5	0.8	0.090	100
	--	<b>6206</b>	■	*	5	10.5	1.6	6.5	11.0	4.5	20.5	0.8	0.080	100
1.5 - 2.5	--	<b>6208</b>	■	*	5	10.5	1.6	8.4	14.0	4.5	22.5	0.8	0.130	100
	--	<b>62010</b>	■	*	5	10.5	1.6	10.5	18.0	4.5	24.5	0.8	0.130	100
	3.0 - 2.5	<b>6303</b>	■		5	11.5	2.3	3.2	6.0	5.1	17.5	0.8	0.065	100
	3.5 - 2.5	<b>63035</b>	■		5	11.5	2.3	3.7	6.0	5.1	17.5	0.8	0.065	100
	4.0 - 2.5	<b>6304</b>	■		5	11.5	2.3	4.3	8.0	5.1	18.5	0.8	0.080	100
	5.0 - 2.5	<b>6305</b>	■		5	11.5	2.3	5.3	10.0	5.1	20.5	0.8	0.090	100
4 - 6	6.0 - 2.5	<b>6306</b>	■		5	11.5	2.3	6.5	11.0	5.1	22.5	0.8	0.110	100
	8.0 - 2.5	<b>6308</b>	■		5	11.5	2.3	8.4	14.0	5.1	23.5	0.8	0.130	100
	--	<b>63010</b>	■	*	5	11.5	2.3	10.5	18.0	5.1	25.5	0.8	0.160	100
	4.0 - 6	<b>6504</b>	■		6	12.5	3.6	4.3	8.0	6.5	20.5	1.0	0.140	100
	5.0 - 6	<b>6505</b>	■		6	12.5	3.6	5.3	10.0	6.5	21.5	1.0	0.160	100
	6.0 - 6	<b>6506</b>	■		6	12.5	3.6	6.5	11.0	6.5	22.5	1.0	0.170	100
4 - 6	8.0 - 6	<b>6508</b>	■		6	12.5	3.6	8.4	14.0	6.5	25.5	1.0	0.220	100
	10.0 - 6	<b>65010</b>	■		6	12.5	3.6	10.5	18.0	6.5	27.5	1.0	0.290	100



## Insulated solderless terminals, fork type



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Dimensions in the crimp area to DIN 46237
- ▶ High-quality brazing process in the crimp area
- ▶ Simple fork-type mounting
- ▶ Insulation sleeve halogen-free

### Characteristics

- Heat resistant to 105° C
- Easy-Entry insulation for simple cable insertion
- Cross-section-dependent colour-coding

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

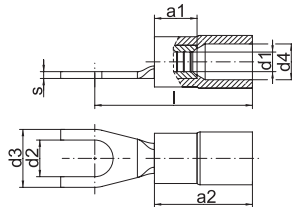
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested
- \* = not standardised



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Hint	Dimension mm								Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	d1	d2	d3	d4	l	s		
0.1 - 0.4	--	<b>619C3</b>	■	*	--	--	--	3.2	5.0	--	14.0	0.5	0.020	100
	3.0 - 1	<b>620C3</b>	■		5	10.5	1.6	3.2	6.0	4.5	16.5	0.8	0.060	100
	3.5 - 1	<b>620C35</b>	■		5	10.5	1.6	3.7	6.8	4.5	17.5	0.8	0.060	100
0.5 - 1	4.0 - 1	<b>620C4</b>	■		5	10.5	1.6	4.3	6.8	4.5	17.5	0.8	0.070	100
	5.0 - 1	<b>620C5</b>	■		5	10.5	1.6	5.3	10.0	4.5	18.5	0.8	0.090	100
	--	<b>620C6</b>	■	*	5	10.5	1.6	6.5	11.0	4.5	20.5	0.8	0.080	100
1.5 - 2.5	3.0 - 2.5	<b>630C3</b>	■		5	11.5	2.3	3.2	6.0	5.1	17.5	0.8	0.060	100
	3.5 - 2.5	<b>630C35</b>	■		5	11.5	2.3	3.7	6.8	5.1	18.5	0.8	0.065	100
	4.0 - 2.5	<b>630C4</b>	■		5	11.5	2.3	4.3	6.8	5.1	18.5	0.8	0.080	100
1.5 - 2.5	5.0 - 2.5	<b>630C5</b>	■		5	11.5	2.3	5.3	10.0	5.1	20.5	0.8	0.090	100
	6.0 - 2.5	<b>630C6</b>	■		5	11.5	2.3	6.5	11.0	5.1	22.5	0.8	0.110	100
	4 - 6	4.0 - 6	<b>650C4</b>	■		6	12.5	3.6	4.3	8.0	6.5	20.5	1.0	0.140
5.0 - 6		<b>650C5</b>	■		6	12.5	3.6	5.3	10.0	6.5	21.5	1.0	0.160	100
6.0 - 6		<b>650C6</b>	■		6	12.5	3.6	6.5	11.0	6.5	22.5	1.0	0.170	100
4 - 6	8.0 - 6	<b>650C8</b>	■		6	12.5	3.6	8.4	14.0	6.5	25.5	1.0	0.220	100
	10.0 - 6	<b>650C10</b>	■		6	12.5	3.6	10.5	18.0	6.5	27.5	1.0	0.280	100



## Insulated pin terminals



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ To DIN 46231
- ▶ High-quality brazing process in the crimp area
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105° C
- Easy-Entry insulation for simple cable insertion

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

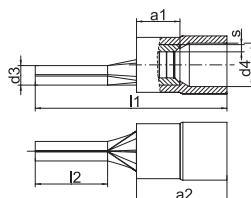
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested
- \* = not standardised



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Hint	Dimension mm						Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	d3	d4	l1	l2		
0.1 - 0.4	--	<b>704</b>	Yellow	*	--	--	1.4	--	18.0	9.0	0.020	100
0.5 - 1	1	<b>705</b>	Red		5	10.5	1.9	4.5	22.0	10.0	0.065	100
		<b>705K</b>	Red	*	5	10.5	1.9	4.5	18.0	6.0	0.060	100
1.5 - 2.5	2.5	<b>710</b>	Blue		5	11.5	1.9	5.1	23.0	10.0	0.065	100
		<b>710K</b>	Blue	*	5	11.5	1.9	5.1	19.5	6.5	0.060	100
		<b>710L</b>	Blue	*	5	11.5	1.9	5.1	27.5	16.0	0.100	100
4 - 6	6	<b>715</b>	Yellow		6	12.5	2.7	6.5	26.0	11.0	0.160	100

## Insulated pin receptacles



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 70° C

### Material

- Bronze (CuSnZn)
- Insulation sleeve: PVC

### Surface

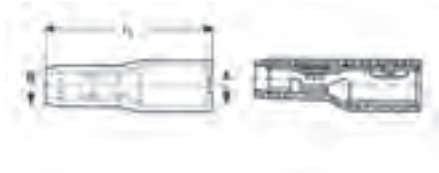
- Tin-plated to protect against corrosion




### Technical instructions

- Tool: see page 175

### Additional information

- 1.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup> not CSA-tested



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm		Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1		
0.5 - 1	920		4	22	0.060	100
1.5 - 2.5	930		5	22	0.120	100
4 - 6	950		5	22	0.125	100

## Insulated pin receptacles



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 70° C

### Material

- Brass (CuZn)
- Insulation sleeve: PVC

### Surface

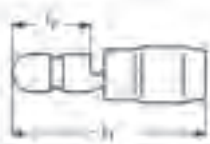
- Tin-plated to protect against corrosion




### Technical instructions

- Tool: see page 175

### Additional information

- 1.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup> not CSA-tested



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1	l2		
0.5 - 1	1020		4	22	9	0.060	100
1.5 - 2.5	1030		5	22	9	0.075	100
4 - 6	1050		5	22	9	0.110	100



## Insulated pin receptacles, fully insulated



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105° C

### Material

- Bronze (CuSnZn)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175

### Additional information

- 4 - 6 mm<sup>2</sup> not CSA-tested

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1	s		
0.5 - 1	<b>920V</b>		4	24	0.38	0.065	100
4 - 6	<b>950V</b>		5	27	0.40	0.150	100

## Insulated pin receptacles, fully insulated



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105° C

### Material

- Bronze (CuSnZn)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175

### Additional information

- 1.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup> not CSA-tested

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			Pin dia.	l1	l2		
0.5 - 1	<b>1020V</b>		4	25	11	0.065	100
1.5 - 2.5	<b>1030V</b>		5	25	11	0.080	100
4 - 6	<b>1050V</b>		5	27	13	0.120	100

## Insulated receptacles, tinned brass



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6

### Characteristics

- To DIN 46245, part 1 – 3 and similar versions
- Cross-section-dependent colour-coding
- Temperature resistance: PVC to 70° C, PA to 105° C

### Material

- Brass (CuZn)
- Insulation sleeve: PVC/PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/pcs
						l1	l2			
0.5 - 1		8201	■	0.5	2.8	17.5	8.0	PVC	0.035	100
		8201A	■	0.8	2.8	17.5	8.0	PVC	0.045	100
		8202	■	0.5	4.8	18.0	6.0	PVC	0.065	100
	4.8 - 1	8203	■	0.8	4.8	18.0	6.0	PVC	0.065	100
	6.3 - 1	720	■	0.8	6.3	22.0	7.5	PVC	0.090	100
		7208	■	0.8	7.7	25.0	9.5	PVC	0.110	100
1.5 - 2.5		8301	■	0.5	2.8	18.0	8.0	PA	0.050	100
		8301A	■	0.8	2.8	18.0	8.0	PA	0.060	100
		8302	■	0.5	4.8	18.0	6.0	PVC	0.070	100
	4.8 - 2.5	8303	■	0.8	4.8	18.0	6.0	PVC	0.070	100
	6.3 - 2.5	730	■	0.8	6.3	21.0	7.4	PVC	0.090	100
		7308	■	0.8	7.7	25.0	9.5	PVC	0.115	100
4 - 6		8503	■	0.8	4.8	23.0	7.5	PA	0.138	100
	6.3 - 6	750	■	0.8	6.3	21.0	7.5	PVC	0.100	100
		7509	■	1.2	9.5	26.5	12.0	PVC	0.150	100



## Insulated receptacles, tinned bronze



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ High quality bronze material provides optimum spring characteristic and improved contact strength

### Characteristics

- To DIN 46245, part 3
- Cross-section-dependent colour-coding
- Heat resistant to 70° C

### Material

- Bronze (CuSnZn)
- Insulation sleeve: PVC

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/ pcs
						l1	l2			
0.5 - 1	6.3 - 1	<b>720BZ</b>	■	0.8	6.3	22	7.5	PVC	0.09	100
1.5 - 2.5	6.3 - 2.5	<b>730BZ</b>	■	0.8	6.3	21	7.4	PVC	0.09	100
4 - 6	6.3 - 6	<b>750BZ</b>	■	0.8	6.3	21	7.5	PVC	0.10	100

## Insulated receptacles, multiple type



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 70° C

### Material

- Brass (CuZn)
- Insulation sleeve: PVC

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm			Insulation material	Weight/pcs. ~kg	Packing unit/ pcs
					l1	l2	l3			
0.5 - 1	<b>720AZ</b>	■	0.8	6.3	22	7.5	8	PVC	0.11	100
1.5 - 2.5	<b>730AZ</b>	■	0.8	6.3	22	7.5	8	PVC	0.11	100
4 - 6	<b>750AZ</b>	■	0.8	6.3	25	8.0	8	PVC	0.18	100

## Insulated receptacles, fully insulated



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Fast processing as no additional insulation of the crimped connection is required

### Characteristics

- Cross-section-dependent colour-coding
- Temperature resistance: PVC to 70° C, PA to 105° C

### Material

- Brass (CuZn)
- Insulation sleeve: PVC/PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/pcs
					l1	l2			
0.5 - 1	8201V	■	0.5	2.8	19.0	5.5	PA	0.07	100
	8201AV	■	0.8	2.8	19.0	5.5	PA	0.07	100
	8202V	■	0.5	4.8	20.0	7.0	PVC	0.10	100
	8203V	■	0.8	4.8	20.0	7.0	PVC	0.10	100
	720V	■	0.8	6.3	21.0	7.5	PVC	0.08	100
1.5 - 2.5	8301V	■	0.5	2.8	20.0	8.0	PVC	0.14	100
	8301AV	■	0.8	2.8	20.0	8.0	PVC	0.14	100
	8302V	■	0.5	4.8	20.5	7.0	PVC	0.11	100
	8303V	■	0.8	4.8	20.5	7.0	PVC	0.11	100
	730V	■	0.8	6.3	21.0	7.5	PVC	0.15	100
4 - 6	8502V	■	0.5	4.8	20.5	9.5	PVC	0.15	100
	8503V	■	0.8	4.8	20.5	9.5	PVC	0.15	100
	750V	■	0.8	6.3	25.5	11.5	PVC	0.16	100





# Electrical connection systems

Cable connections, insulated and non insulated

## Insulated tabs



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6

### Characteristics

- Cross-section-dependent colour-coding
- Temperature resistance: PVC to 70° C, PA to 105° C

### Material

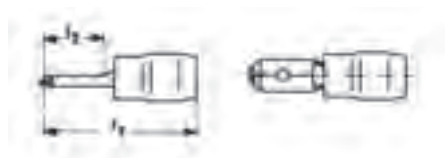
- Brass (CuZn)
- Insulation sleeve: PVC/PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Tab Thickn.	Tab Width	Dimension mm		Insulation material	Weight/pcs. ~kg	Packing unit/pcs
					l1	l2			
0.5 - 1	8201C	■	0.5	2.8	22.0	11.5	PA	0.040	100
	8201B	■	0.8	2.8	14.6	5.5	PVC	0.060	100
	8202B	■	0.5	4.8	22.0	11.5	PA	0.070	100
	8203B	■	0.8	4.8	22.0	11.5	PA	0.070	100
	820	■	0.8	6.3	22.0	8.0	PVC	0.060	100
1.5 - 2.5	8302B	■	0.5	4.8	22.0	11.5	PA	0.070	100
	8303B	■	0.8	4.8	22.0	11.5	PA	0.070	100
	830	■	0.8	6.3	22.0	8.0	PVC	0.065	100
4 - 6	8502B	■	0.5	4.8	24.5	10.5	PA	0.120	100
	8503B	■	0.8	4.8	24.5	10.5	PA	0.120	100
	850	■	0.8	6.3	22.0	8.0	PVC	0.110	100

## Insulated end-splices



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6

► Safe sealing of open conductors

► Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105° C

### Material

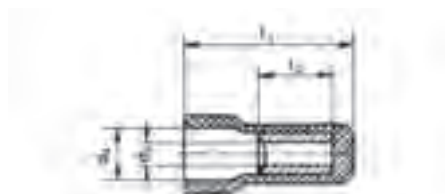
- Copper (ETP)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

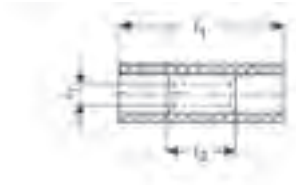
### Technical instructions

- Tool: see page 175



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm				Weight/pcs. ~kg	Packing unit/pcs
			d1	d2	l1	l2		
1.5 - 2.5	1130	■	2.3	5.2	16	7	0.05	100
4 - 6	1150	■	3.6	7.0	18	7	0.14	100

## Insulated butt connectors



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Simple and safe connecting owed to butt mark
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105° C

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

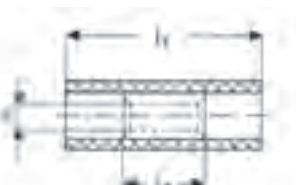
- Tool: see page 175

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			d1	l1	l2		
0.1 - 0.4	669	Yellow	1.2	20	12	0.030	100
0.5 - 1	670	Red	1.6	25	15	0.090	100
1.5 - 2.5	680	Blue	2.3	25	15	0.115	100
4 - 6	700	Yellow	3.6	27	15	0.250	100

## Insulated butt connectors with heat shrink insulation



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Simple and safe processing due to butt mark
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Special crimping tool required
- Heat resistant to 105° C

### Material

- Copper (ETP)
- Insulation sleeve: PE

### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175

Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			d1	l1	l2		
0.5 - 1	670WS	Red	1.6	36	15	0.12	100
1.5 - 2.5	680WS	Blue	2.3	36	15	0.15	100
4 - 6	700WS	Yellow	3.4	41	15	0.25	100



## Insulated parallel connectors



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Fast processing as no additional insulation of the crimped connection is required
- ▶ Insulation sleeve halogen-free

### Characteristics

- Cross-section-dependent colour-coding
- Heat resistant to 105° C

### Material

- Copper (ETP)
- Insulation sleeve: PA

### Surface

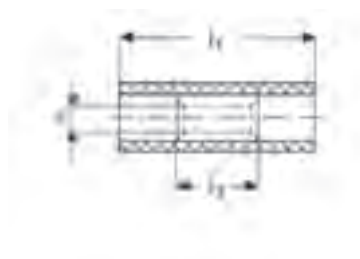
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 175

### Additional information

- 0.1 - 0.4 mm<sup>2</sup> not CSA-tested



Nominal cross section mm <sup>2</sup>	Part No.	Colour	Dimension mm			Weight/pcs. ~kg	Packing unit/pcs
			d1	l1	l2		
0.1 - 0.4	<b>769</b>		1.2	13	5	0.020	100
0.5 - 1	<b>770</b>		1.6	17	7	0.030	100
1.5 - 2.5	<b>780</b>		2.3	17	7	0.035	100
4 - 6	<b>790</b>		3.6	21	7	0.105	100



## Non-insulated receptacles



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6



### Characteristics

- To DIN 46247, part 1 – 3 and similar versions
- Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 176

### Additional information

- \* = nickel-plated steel version also available, Part Number appendix "ST"



Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Dimension mm						Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	l1	l2	l3	s		
0.5 - 1	--	<b>18251</b>	0.5	2.8	5.0	2.8	12.5	5.0	3.3	0.30	0.025	100
		<b>18251A</b>	0.8	2.8	5.5	2.5	12.5	5.0	3.3	0.30	0.025	100
	B 2.8 - 1	<b>18201A</b>	0.8	2.8	5.5	2.5	14.0	6.3	3.3	0,35	0.025	100
	--	<b>18202</b>	0.5	4.8	6.0	3.4	15.6	6.0	3.8	0.35	0.050	100
	4.8 - 1	<b>18203</b>	0.8	4.8	6.0	3.4	15.6	6.0	3.8	0.35	0.050	100
1.5 - 2.5	6.3 - 1	<b>1720</b>	0.8	6.3	8.5	4.5	19.0	7.4	4.0	0.45	0.085	100
	4.8 - 2.5	<b>18303</b>	0.8	4.8	6.0	3.4	15.6	6.0	3.8	0.35	0.055	100
	6.3 - 2.5	<b>*1730</b>	0.8	6.3	8.5	4.5	19.0	7.4	4.0	0.45	0.082	100
4 - 6	6.3 - 6	<b>*1750</b>	0.8	6.3	8.5	4.5	19.0	7.4	4.0	0.45	0.100	100

## Non-insulated receptacles, multiple type



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6



### Characteristics

- To DIN 46247, part 1 – 3 and similar versions
- Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

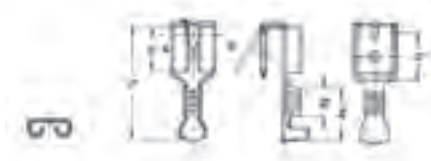
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 176

### Additional information

- \* = corresponds to DIN 46345



Nominal cross section mm <sup>2</sup>	Part No.	Tab Thickn.	Tab Width	Hint	Dimension mm						Weight/ pcs. ~kg	Packing unit/pcs
					a1	a2	l1	l2	l3	s		
0.5 - 1	<b>18203AZ</b>	0.8	4.8		6.0	3.4	15.6	7	6.0	0.38	0.09	100
1.5 - 2.5	<b>18303AZ</b>	0.8	4.8		6.0	3.4	15.6	7	6.0	0.38	0.09	100
	<b>1730AZ</b>	0.8	6.3	*	8.5	4.5	19.2	8	7.5	0.38	0.13	100



## Non-insulated receptacles with locking latch



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6



### Characteristics

- To DIN 46340, sheet 3
- With latch to engage in housing
- Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

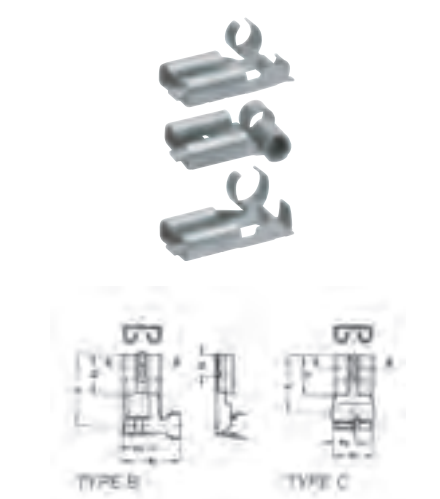
- Tin-plated to protect against corrosion

### Technical instructions

- Tool: see page 176

Nominal cross section mm <sup>2</sup>	Part No.	Tab Thickn.	Tab Width	Dimension mm						Weight/pcs. ~kg	Packing unit/pcs
				a1	a2	l1	l2	l3	s		
0.5 - 1	<b>2720</b>	0.8	6.3	8.5	4.5	19.2	7.4	7	0.38	0.070	100
1.5 - 2.5	<b>2730</b>	0.8	6.3	8.5	4.5	19.2	7.4	7	0.38	0.075	100
4 - 6	<b>2750</b>	0.8	6.3	8.5	4.5	19.2	7.4	7	0.38	0.090	100

## Non-insulated receptacles with lateral conductor connector



► For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6  
► Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

- Tin-plated to protect against corrosion

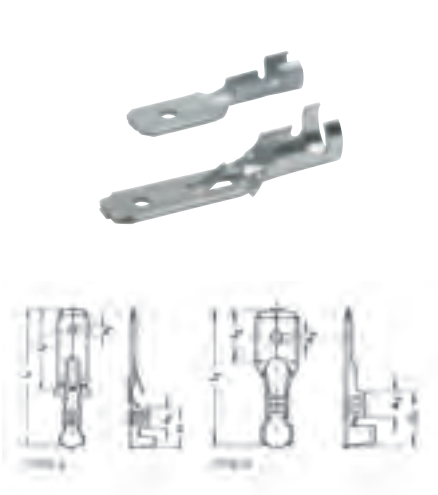


### Technical instructions

- Tool: see page 176

Nominal cross section mm <sup>2</sup>	Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm						Weight/pcs. ~kg	Packing unit/pcs
					a1	a2	l1	l2	l3	l4		
0.5 - 1	<b>3720</b>	0.8	6.3	B	11.0	3.0	12.5	7.4	4.0	7.2	0.080	100
0.5 - 1.5	<b>3725</b>	0.8	6.3	C	7.5	4.0	11.00	7.4	4.0	7.2	0.085	100
1.5 - 2.5	<b>3735</b>	0.8	6.3	B	11.0	3.0	13.5	7.0	4.0	7.2	0.085	100

## Non-insulated tabs



- ▶ For fine and superfine stranded conductors, e.g. to DIN EN 60228 Cl. 5 and 6
- ▶ Improved contact properties due to grooved profile



### Material

- Brass (CuZn)



### Surface

- Tin-plated to protect against corrosion



### Technical instructions

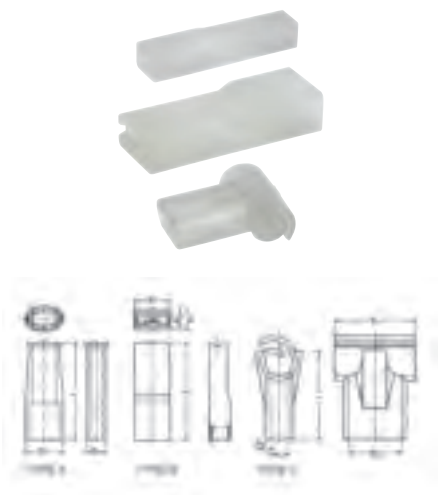
- Tool: see page 176

### Additional information

- \* = dimensions in the plug sector to DIN 46244

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Typ	Hint	Dimension mm					Weight/ pcs. ~kg	Packing unit/pcs
							a1	a2	d2	l1	l2		
0.5 - 1		<b>2235</b>	0.8	2.8	A	*	6.0	3.2	1.30	22.5	12.7	0.045	100
	46343 B6.3 - 1	<b>2220</b>	0.8	6.3	A		8.2	4.0	1.65	28.0	16.0	0.085	100
1.5 - 2.5	46248 A6.3 - 2.5	<b>1830</b>	0.8	6.3	B		9.0	4.5	1.65	20.0	8.0	0.065	100
	46343 B6.3 - 2.5	<b>2230</b>	0.8	6.3	A		8.2	4.0	1.65	28.0	16.0	0.090	100
4 - 6	46343 B6.3 - 6	<b>2250</b>	0.8	6.3	A		8.2	4.0	1.65	28.0	16.0	0.100	100

## Insulation sleeves



- ▶ For non-insulated tabs
- ▶ Perfectly-matched to the different versions

### Characteristics

- For post-insulation of crimped non-insulated receptacles

### Material

- PA / PE / PVC

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Typ	Dimension mm			Insulation material	for item	Weight/ pcs. ~kg	Packing unit/pcs
					b1	l	h1				
0.5 - 1	2.8	<b>2755</b>	□	A	6.5	20.0	4.0	PE	18251,18251A, 18201A	0.015	100
0.5 - 1.5	4.8	<b>2760</b>	□	A	7.0	20.0	5.0	PE	18202,18203	0.015	100



## Insulation sleeves

Nominal cross section mm <sup>2</sup>	Nominal size to DIN	Part No.	Colour	Typ	Dimension mm			Insulation material	for item	Weight/pcs. ~kg	Packing unit/pcs
					b1	l	h1				
0.5 - 2.5	6.3	2770		A	12.5	23.0	8.5	PE	1720,1730	0.035	100
		2775		A	9.5	25.0	5.0	PE	1820,1830	0.030	100
0.5 - 4	6.3	2780		A	9.5	25.0	6.0	PE	1720,1730,1820,1830	0.030	100
0.5 - 6		2785		B	9.2	24.5	5.6	PA	1720,1730,1750,2720,2730,2750	0.055	100
		2790		C	13.5	15.0	3.1	PVC	3720,3725,3735	0.060	100

## Non-insulated tabs, angled version



### Characteristics

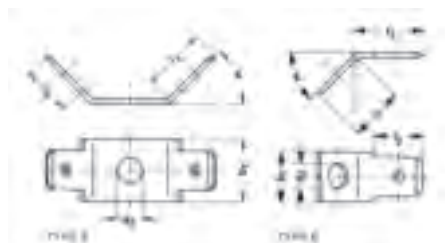
- To DIN 46342, part 1 and similar versions
- Dimensions in the plug sector to DIN 46244

### Material

- Brass (CuZn)

### Surface

- Tin-plated to protect against corrosion



Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm						Weight/pcs. ~kg	Packing unit/pcs
					b1	d2	l2	l3	l4	w		
--	2040	0.8	2.8	A	5.0	3.2	5.5	6.5	--	60°	0.040	100
	2045	0.8	6.3	A	10.0	4.3	8.0	10.0	--	45°	0.160	100
	2060	0.8	6.3	B	8.0	4.3	8.0	8.0	10.7	30°	0.085	100
	2070	0.8	6.3	B	8.0	3.2	8.0	8.0	10.7	45°	0.085	100
	2075	0.8	6.3	B	8.0	4.1	8.0	8.0	10.7	45°	0.085	100
B 6.3 - 0.8	2080	0.8	6.3	B	8.0	4.3	8.0	8.5	10.7	45°	0.085	100
	2083	0.8	6.3	B	8.0	5.3	8.0	8.5	10.7	45°	0.080	100
--	2090	0.8	6.3	B	8.0	5.3	8.0	8.0	10.7	45°	0.080	100
	2100	0.8	6.3	B	7.5	2.5	8.0	5.7	11.5	90°	0.075	100
	2105	0.8	6.3	B	8.0	3.2	8.0	8.0	11.5	90°	0.085	100
C 6.3 - 0.8	2115	0.8	6.3	B	8.0	4.3	8.0	8.5	11.5	90°	0.090	100

## Non-insulated tabs, straight version



### Characteristics

- To DIN 46342, part 1 and similar versions
- Dimensions in the plug sector to DIN 46244

### Material

- Brass (CuZn)

### Surface

- Tin-plated to protect against corrosion

Nominal size to DIN	Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm					Weight/pcs. ~kg	Packing unit/pcs
					b1	d2	l1	l2	s		
--	<b>2123</b>	0.8	2.8	A	4.5	3.1	13.0	5.5	0.8	0.028	100
A 6.3 - 0.8	<b>2140</b>	0.8	6.3	A	8.0	4.3	19.0	8.0	0.8	0.086	100
--	<b>2145</b>	0.8	6.3	A	8.0	5.3	19.0	8.0	0.8	0.080	100

## Non-insulated tabs for soldering



► Material used offers very good soldering characteristics

### Characteristics

- Dimensions in the plug sector to DIN 46244
- For soldering in printed circuits

### Material

- Brass (CuZn)

### Surface

- Tin-plated to protect against corrosion

Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm								Weight/pcs. ~kg	Packing unit/pcs
				b1	b2	b3	l1	l2	l3	l4	s		
<b>2010</b>	0.8	2.8	A	--	--	--	10.5	6.5	--	--	0.8	0.015	100
<b>2020</b>	0.5	2.8	C	1.0	5	--	--	7.1	8	13.4	0.5	0.025	100
<b>2025</b>	0.8	2.8	C	1.0	5	--	--	7.1	8	13.4	0.8	0.040	100
<b>2030</b>	0.8	6.3	D	3.5	5	6.4	16.0	8.0	4	12.0	0.8	0.065	100
<b>2035</b>	0.8	6.3	E	3.8	5	6.2	16.0	8.0	3	12.0	0.8	0.085	100





## Non-insulated multiple tabs



### Characteristics

- Dimensions in the plug sector to DIN 46244

### Material

- Brass (CuZn)

### Surface

- Tin-plated to protect against corrosion



Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm									Weight/ pcs. ~kg	Packing unit/pcs
				a1	b2	b3	l1	l2	l3	h	w	s		
735	0.8	2.8	A	5	3.2	3.1	16.0	6.7	--	--	--	0.38	0.060	100
755	0.8	4.8	C	--	4.4	--	20.0	7.0	7.0	8.0	--	0.38	0.155	100
725	0.8	6.3	D	--	--	--	--	8	7.5	--	15°	0.38	0.115	100
775	0.8	6.3	C	--	--	--	20.5	12	7.5	9.6	--	0.38	0.200	100

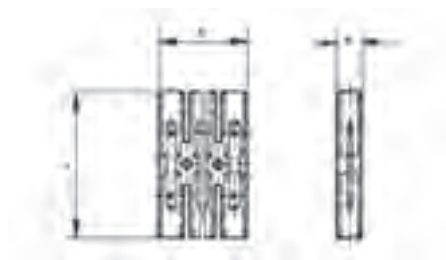
## Flexible connector, tab width 2.8 mm, 4.8 mm and 6.3 mm

▶ No additional insulation required



### Characteristics

- With tabs 2.8, 4.8 or 6.3 x 0.8 mm
- 1, 2 and 12-poles
- Further poles on request



Part No.	Tab Thickn.	Tab Width	Poles	Dimension mm				Insulation material	Bolt size mm		Weight/ pcs. ~kg	Packing unit/pcs
				b	l	h	s		Distance	Diameter		
Tab Width 2.8 mm												
8101	0.8	2.8	1	7.5	35	5.5	0.8	PVC	--	--	0.2	100
8102	0.8	2.8	2	15.0	35	5.5	0.8	PVC	--	2.7	0.3	50
81012	0.8	2.8	12	88.0	35	5.5	0.8	PVC	75	2.7	1.6	10
Tab Width 4.8 mm												
8051	0.8	4.8	1	12.5	28	6.6	0.8	PVC	--	--	0.25	100
8052	0.8	4.8	2	25.0	28	6.6	0.8	PVC	--	3.2	0.50	50
80512	0.8	4.8	12	142.0	28	6.6	0.8	PVC	120	3.2	2.80	10
Tab Width 6.3 mm												
8001	0.8	6.3	1	12.5	28	6.6	0.8	PVC	--	--	0.30	100
8002	0.8	6.3	2	25.0	28	6.6	0.8	PVC	--	3.7	0.55	50
80012	0.8	6.3	12	142.0	28	6.6	0.8	PVC	120	3.7	3.20	10

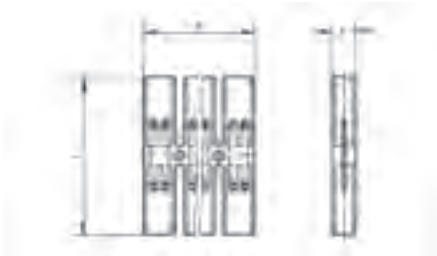
## Polyamide connector, tab width 2.8 and 6.3 mm

▶ No additional insulation required



### Characteristics

- With tabs 2.8 x 0.8 mm and 6.3 x 0.8 mm
- 1, 2 and 12-poles
- Further poles on request



Part No.	Tab Thickn.	Tab Width	Poles	Dimension mm				Insulation material	Bolt size mm		Weight/ pcs. ~kg	Packing unit/pcs
				b	l	h	s		Distance	Diameter		
8011	0.8	6.3 and 2 x 2.8	1	10.0	50	7.5	0.8	PA	--	--	0.25	100
8012	0.8	6.3 and 2 x 2.8	2	22.5	50	7.5	0.8	PA	--	3.1	0.50	50
80112	0.8	6.3 and 2 x 2.8	12	147.5	50	7.5	0.8	PA	125	3.1	3.10	10

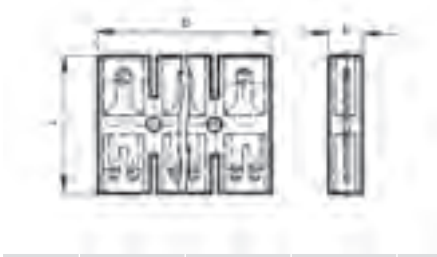
## Flexible circuit distributor, tab width 2.8 mm

▶ No additional insulation required



### Characteristics

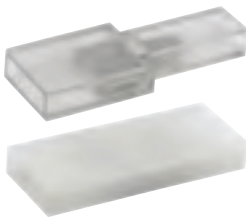
- With tabs 2.8 x 0.8 mm
- 1 and 12-poles
- Further poles on request



Part No.	Tab Thickn.	Tab Width	Poles	Dimension mm				Insulation material	Bolt size mm		Weight/ pcs. ~kg	Packing unit/pcs
				b	l	h	s		Distance	Diameter		
8151	0.8	2.8	1	12.5	28	7	0.8	PVC	--	--	0.25	100
81512	0.8	2.8	12	147.0	28	7	0.8	PVC	123	3.2	2.80	10



## Flexible circuit distributor, tab width 6.3 mm



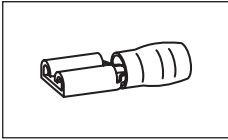
▶ No additional insulation required

### Characteristics

- With tabs 6.3 x 0.8 mm



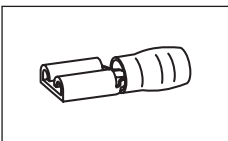
Part No.	Tab Thickn.	Tab Width	Typ	Dimension mm								Insulation material	Weight/ pcs. ~kg	Packing unit/pcs
				b	b1	b2	l	l1	h	s				
<b>816</b>	0.8	6.3	A	21	11.3	9	53	15	7.5	0.8	PVC	0.60	10	
<b>817</b>	0.8	6.3	B	20	11.3	9	51	13	7.0	0.8	PVC	0.65	10	



### Tool application chart

#### Insulated cable connections

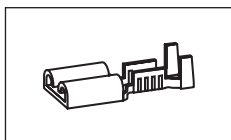
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0.1 - 1	K80		220		○
	0.5 - 6	K82		221		○
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0.1 - 1	KP1	+KP80	240		○
		KP1L	+KP80	240		○
	0.5 - 2.5	KP1	+KP81	240		○
		KP1L	+KP81	240		○
	0.5 - 6	K50		244	327	○
		EK50ML		254	327	○
4 - 6	KP1	+KP83	240		○	
	KP1L	+KP83	240		○	
Battery powered crimping tools	0.5 - 6	EK1550ML		258	327	○



### Tool application chart

#### Butt connectors with heat shrink insulation

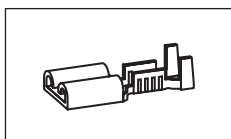
Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0.5 - 6	K50		244	327	○
		EK50ML		254	327	○
Battery powered crimping tools	0.5 - 6	EK1550ML		258	327	○



## Tool application chart

### Non-insulated receptacles, straight type

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical crimping tools	0.1 - 1	K572		224		☺
		K67		225		☺
	0.5 - 2.5	K582		224		☺
		K65		226		☺
	0.5 - 6	K592		225		☺
		K60		223		☺
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	0.25 - 6	K50		244	327	☺
		EK50ML		254	327	☺
Battery powered crimping tools	0.25 - 6	EK1550ML		258	327	☺



## Tool application chart

### Non-insulated receptacles, with lateral conductor connector

Tool type	Crimping range corresponds to nominal cross-section mm <sup>2</sup>	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
Mechanical, electrical, pneumatic crimping tools with interchangeable die / head	3720, 3735	K50		244	327	☺
		EK50ML		254	327	☺
		SKP6		242		☺
	3725	K50		244	327	☺
		EK50ML		254	327	☺
		SKP6		242		☺
Battery powered crimping tools	3720, 3735	EK1550ML		258	327	☺
	3725	EK1550ML		258	327	☺





# PRACTICAL - POCKET BOXES AND ASSORTMENT BOXES

A good professional is always well sorted. The most important thing is the availability of tool and connector material. In Klauke assortment boxes from robust metal, the tools are supplied with matching cable lugs and connectors. Everything matches. Materials and tools have their own space - clearly arranged and immediately to hand. The boxes equip you for every application. On request, we can also stock them to suit your individual needs.



## In brief

- ▶ Brings order to the workplace due to clearly arranged design
- ▶ Everything to hand in one box
- ▶ Stocked to suit your needs and numerous versions available

► **Practical and always to hand**

With the practical pocket boxes, everything has its place and is always to hand, on the go and in the workshop. Chute openings for stackable pocket boxes simplify the removal of cable end-sleeves.

- Cable-end sleeves with and without insulation always to hand
- Practical chute opening for easy removal
- Stackable box
- Tough and impact-proof plastic



► **Our range, your order**

We have already compiled an assortment for you. We offer pre-filled boxes for various applications. You can also fill the robust box yourself if you want.

- High-quality boxes made from plastic or metal
- Contains tool and connectors matched to one other
- Even if exposed to severe vibrations or dropped, everything remains in the right compartment
- Boxes also available empty or custom-filled







## ST 23 B Pocket box with cable end-sleeves 0.25 - 1 mm<sup>2</sup>



▶ Pocket box made from impact-resistant plastic

### Characteristics

- Stackable and resealable

Item		Part No.	
Pocket box with cable end-sleeves 0.25 - 1 mm <sup>2</sup> to DIN 46228 part 1		<b>ST23B</b>	
Scope of supply	Description	Quantity	Page
ST23L	Pocket box	1	
695V	Cable end-sleeve, 0.25 mm <sup>2</sup> , 5 mm	1000	138
705V	Cable end-sleeve, 0.34 mm <sup>2</sup> , 5 mm, Cu tinned	1000	138
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	1000	138
71S6V	Cable end-sleeve, 0.5 mm <sup>2</sup> , 6 mm, Cu tinned	500	138
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	500	138

## ST 21 B Pocket box with cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>



▶ Pocket box made from impact-resistant plastic

### Characteristics

- Stackable and resealable

Item		Part No.	
Pocket box with cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> to DIN 46228 part 1		<b>ST21B</b>	
Scope of supply	Description	Quantity	Page
ST21L	Pocket box	1	
71S6V	Cable end-sleeve, 0.5 mm <sup>2</sup> , 6 mm, Cu tinned	1000	138
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	500	138
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	500	138
727V	Cable end-sleeve, 1.5 mm <sup>2</sup> , 7 mm	500	138
737V	Cable end-sleeve, 2.5 mm <sup>2</sup> , 7 mm	500	138

## ST 22 B Pocket box with cable end-sleeves 4 - 16 mm<sup>2</sup>



▶ Pocket box made from impact-resistant plastic

### Characteristics

- Stackable and resealable

Item		Part No.	
Pocket box with cable end-sleeves 4 - 16 mm <sup>2</sup> to DIN 46228 part 1		<b>ST22B</b>	
Scope of supply	Description	Quantity	Page
ST22L	Pocket box	1	
749V	Cable end-sleeve, 4 mm <sup>2</sup> , 9 mm	200	139
7512V	Cable end-sleeve, 6 mm <sup>2</sup> , 12 mm, Cu tinned	100	139
7612V	Cable end-sleeve, 10 mm <sup>2</sup> , 12 mm, Cu tinned	70	139
7712V	Cable end-sleeve, 16 mm <sup>2</sup> , 12 mm, Cu tinned	70	139

### ST 15 B Pocket box with insulated twin cable end-sleeves 2 x 0.75 - 2 x 2.5 mm<sup>2</sup>



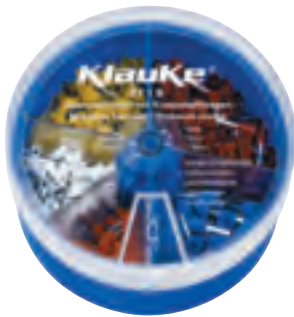
► Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.	
Pocket box with twin cable end-sleeves 2 x 0.75 - 2 x 2.5 mm <sup>2</sup>				<b>ST15B</b>	
Scope of supply	Colour	Description	Quantity	Page	
ST15L		Pocket box	1		
8708		Insl. twin cable end-sleeve, 2 x 0.75 mm <sup>2</sup>	50	147	
8718		Insl. twin cable end-sleeve, 2 x 1 mm <sup>2</sup>	50	147	
8728		Insl. twin cable end-sleeve, 2 x 1.5 mm <sup>2</sup>	50	147	
87310		Insl. twin cable end-sleeve, 2 x 2.5 mm <sup>2</sup>	50	147	

### ST 1 B pocket box with insl. cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>, DIN 46228 Part 4



► Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.	
Pocket box with insl. cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> , DIN 46228 Part 4, colour code 1				<b>ST1B</b>	
Scope of supply	Colour	Description	Quantity	Page	
ST1L		Pocket box	1		
1690		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	50	142	
170W		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14.6 mm	100	143	
171G		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14.6 mm	100	143	
172RO		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14.6 mm	100	143	
173B		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 15.2 mm	50	143	

### ST 11 B pocket box with insl. cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>, DIN 46228 Part 4



► Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.	
Pocket box with insl. cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> , DIN 46228 Part 4				<b>ST11B</b>	
Scope of supply	Colour	Description	Quantity	Page	
ST11L		Pocket box	1		
4698		Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	50	141	
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	100	141	
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	100	141	
4728		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	100	141	
4738		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	50	141	



### ST 31 B pocket box with insl. cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>, DIN 46228 Part 4, colour code 2



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.
Pocket box with insl. cable end-sleeves 0.5 - 2.5 mm <sup>2</sup> , DIN 46228 Part 4, colour code 2				<b>ST31B</b>
Scope of supply	Colour	Description	Quantity	Page
ST31L		Pocket box	1	
1698		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 13 mm	50	144
1708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 13.5 mm	100	144
1718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 13.5 mm	100	144
1728		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 13.5 mm	100	144
1738		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14.5 mm	50	144

### ST 12 B pocket box with insl. cable end-sleeves 4 - 16 mm<sup>2</sup>, DIN 46228 Part 4



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.
Pocket box with insl. cable end-sleeves 4 - 16 mm <sup>2</sup> , DIN 46228 Part 4				<b>ST12B</b>
Scope of supply	Colour	Description	Quantity	Page
ST12L		Pocket box	1	
47410		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	50	141
47512		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	20	141
47612		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	20	141
47712		Insl. cable end-sleeve, 16 mm <sup>2</sup> , 24 mm	10	142

### ST 2 B pocket box with insl. cable end-sleeves 4 - 16 mm<sup>2</sup>, DIN 46228 Part 4, colour code 1



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item				Part No.
Pocket box with insl. cable end-sleeves 4 - 16 mm <sup>2</sup> , DIN 46228 Part 4, colour code 1				<b>ST2B</b>
Scope of supply	Colour	Description	Quantity	Page
ST2L		Pocket box	1	
174GR		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 16.5 mm	50	143
175S		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	20	143
176E		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 21.5 mm	20	143
177GR		Insl. cable end-sleeve, 16 mm <sup>2</sup> , 22.2 mm	10	143

**ST 32 B pocket box with insl. cable end-sleeves 4 - 16 mm<sup>2</sup>, DIN 46228 Part 4, colour code 2**



▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.
Pocket box with insl. cable end-sleeves 4 - 16 mm <sup>2</sup> , DIN 46228 Part 4, colour code 2				<b>ST32B</b>
Scope of supply	Colour	Description	Quantity	Page
ST32L		Pocket box	1	
17410		Insl. cable end-sleeve, 4 mm <sup>2</sup> , 16.5 mm	50	144
17512		Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	20	144
17612		Insl. cable end-sleeve, 10 mm <sup>2</sup> , 21.5 mm	20	145
17712		Insl. cable end-sleeve, 16 mm <sup>2</sup> , 23.5 mm	10	145

**ST 3 B pocket box with insl. cable end-sleeves 0.25 - 1 mm<sup>2</sup>, DIN 46228 Part 4, colour code 1**



▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.
Pocket box with insl. cable end-sleeves 0.25 - 1 mm <sup>2</sup> , DIN 46228 Part 4, colour code 1				<b>ST3B</b>
Scope of supply	Colour	Description	Quantity	Page
ST3L		Pocket box	1	
167H		Insl. cable end-sleeve, 0.25 mm <sup>2</sup> , 10.4 mm	30	142
168T		Insl. cable end-sleeve, 0.34 mm <sup>2</sup> , 10.4 mm	30	142
1690		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	30	142
170W		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14.6 mm	30	143
171G		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14.6 mm	30	143

**ST 13 B pocket box with insl. cable end-sleeves 0.25 - 1 mm<sup>2</sup>, DIN 46228 Part 4 & similar, colour code 1**



▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.
Pocket box with insl. cable end-sleeves 0.25 - 1 mm <sup>2</sup> , DIN 46228 Part 4 & similar, colour code 1				<b>ST13B</b>
Scope of supply	Colour	Description	Quantity	Page
ST13L		Pocket box	1	
167H		Insl. cable end-sleeve, 0.25 mm <sup>2</sup> , 10.4 mm	30	142
168T		Insl. cable end-sleeve, 0.34 mm <sup>2</sup> , 10.4 mm	30	142
4698		Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	30	141
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	30	141
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	30	141

**ST 33 B pocket box with insl. cable end-sleeves 0.25-1 mm<sup>2</sup>,  
DIN 46228 Part 4 & similar, colour code 2**



▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.	
Pocket box with insl. cable end-sleeves 0.25 - 1 mm <sup>2</sup> , DIN 46228 Part 4 & similar, colour code 2				<b>ST33B</b>	
Scope of supply	Colour	Description	Quantity	Page	
ST33L		Pocket box	1		
1676		Insl. cable end-sleeve, 0.25 mm <sup>2</sup> , 11 mm	30	144	
1686		Insl. cable end-sleeve, 0.34 mm <sup>2</sup> , 11 mm	30	144	
1698		Insl. cable end-sleeve, 0.5 mm <sup>2</sup> , 13 mm	30	144	
1708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 13.5 mm	30	144	
1718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 13.5 mm	30	144	

**GR 4698 DO Pocket box with insulated cable end-sleeves 0.5 mm<sup>2</sup>**



▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.	
Pocket box with insulated cable end-sleeves 0.5 mm <sup>2</sup> to DIN 46228 part 4				<b>GR4698DO</b>	
Scope of supply	Colour	Description	Quantity	Page	
4698		Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	1000	141	

**GR 4708 DO Pocket box with insulated cable end-sleeves 0.75 mm<sup>2</sup>**



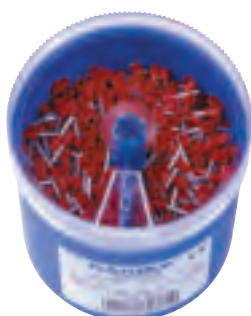
▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.	
Pocket box with insulated cable end-sleeves 0.75 mm <sup>2</sup> DIN 46228 part 4				<b>GR4708DO</b>	
Scope of supply	Colour	Description	Quantity	Page	
4708		Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	1000	141	

**GR 4718 DO Pocket box with insulated cable end-sleeves 1 mm<sup>2</sup>**



▶ Pocket box made from impact-resistant plastic

**Characteristics**

- Stackable and resealable

Item				Part No.	
Pocket box with insulated cable end-sleeves 1 mm <sup>2</sup> DIN 46228 part 4				<b>GR4718DO</b>	
Scope of supply	Colour	Description	Quantity	Page	
4718		Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	1000	141	




### GR 4728 DO Pocket box with insulated cable end-sleeves 1.5 mm<sup>2</sup>



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item		Part No.		
Pocket box with insulated cable end-sleeves 1.5 mm <sup>2</sup> DIN 46228 part 4		<b>GR4728DO</b>		
Scope of supply	Colour	Description	Quantity	Page
4728		Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	1000	141


### GR 4738 DO Pocket box with insulated cable end-sleeves 2.5 mm<sup>2</sup>



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item		Part No.		
Pocket box with insulated cable end-sleeves 2.5 mm <sup>2</sup> DIN 46228 part 4		<b>GR4738DO</b>		
Scope of supply	Colour	Description	Quantity	Page
4738		Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	1000	141

### ST 5 L assortment of empty pocket boxes



▶ Pocket box made from impact-resistant plastic

#### Characteristics

- Stackable and resealable

Item		Part No.
Assortment of pocket boxes		<b>ST5L</b>

### SK 30 B Steel assortment box with cable end-sleeves and crimping tool



▶ Hammer-tone finished assortment box  
▶ Ideal for workshop equipment

Item		Dimension mm	Part No.	
Steel assortment box with cable end-sleeves and crimping tool		200 x 140 x 40	<b>SK30B</b>	
Scope of supply	Description	Quantity	Page	
SK30L	Steel carrying case	1	193	
K48	Crimping tool for cable end-sleeves 0.14 - 2.5 mm <sup>2</sup>	1	212	
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	1000	138	
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	1000	138	
727V	Cable end-sleeve, 1.5 mm <sup>2</sup> , 7 mm	1000	138	
737V	Cable end-sleeve, 2.5 mm <sup>2</sup> , 7 mm	1000	138	



### SK 32 B Steel assortment box with cable end-sleeves and crimping tool



- ▶ Broad cable end-sleeve assortment appropriate crimping tool
- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with cable end-sleeves and crimping tool	285 x 155 x 45	<b>SK32B</b>

Scope of supply	Description	Quantity	Page
SK32L	Steel carrying case	1	193
K3	Crimping tool for cable end-sleeves 0.5 - 16 mm <sup>2</sup>	1	211
716V	Cable end-sleeve, 0.75 mm <sup>2</sup> , 6 mm	1000	138
72S6V	Cable end-sleeve, 1.0 mm <sup>2</sup> , 6 mm	1000	138
727V	Cable end-sleeve, 1.5 mm <sup>2</sup> , 7 mm	1000	138
737V	Cable end-sleeve, 2.5 mm <sup>2</sup> , 7 mm	500	138
749V	Cable end-sleeve, 4 mm <sup>2</sup> , 9 mm	500	139
7510V	Cable end-sleeve, 6 mm <sup>2</sup> , 10 mm	500	139
7618V	Cable end-sleeve, 10 mm <sup>2</sup> , 18 mm	250	139
7718V	Cable end-sleeve, 16 mm <sup>2</sup> , 18 mm	150	139

### SK 45 B Steel assortment box with insl. cable end-sleeves and crimping tool



- ▶ Four of the most important insulated cable end-sleeve types in a steel carrying case including an appropriate crimping tool
- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with insl. cable end-sleeves and crimping tool	200 x 140 x 40	<b>SK45B</b>

Scope of supply	Colour	Description	Quantity	Page
SK30L		Steel carrying case	1	193
K48		Crimping tool for cable end-sleeves 0.14 - 2.5 mm <sup>2</sup>	1	212
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	300	141
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	300	141
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	300	141
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	200	141



## SK 47 B Steel assortment box with insl. cable end-sleeves and crimping tool



- ▶ Flexible use due to large cross-sectional range
- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with insl. cable end-sleeves and crimping tool	285 x 155 x 45	<b>SK47B</b>

Scope of supply	Colour	Description	Quantity	Page
SK32L		Steel carrying case	1	193
K3		Crimping tool for cable end-sleeves 0.5 - 16 mm <sup>2</sup>	1	211
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	200	141
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	200	141
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	200	141
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	200	141
47410	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	100	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	100	141
47618	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 28 mm	100	141
47718	■	Insl. cable end-sleeve, 16 mm <sup>2</sup> , 28 mm	50	142

## SK 30/3 P Assortment box from plastic with insl. cable end-sleeves and tools



- ▶ With everything needed for conductor preparation
- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Dimension mm	Part No.
Plastic assortment box with insl. cable end-sleeves and tools	395 x 295 x 106	<b>SK303P</b>

Scope of supply	Colour	Description	Quantity	Page
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>	1	549
K303		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm <sup>2</sup>	1	217
4698	□	Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	400	141
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	400	141
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	400	141
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	400	141
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	200	141
47410	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	200	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	100	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	100	141



### SK 30/3 S Assortment box from plastic with insl. cable end-sleeves and crimping tool



- ▶ With everything needed for conductor preparation
- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Dimension mm	Part No.
Plastic assortment box with insl. cable end-sleeves and crimping tool	275 x 230 x 83	<b>SK303S</b>

Scope of supply	Colour	Description	Quantity	Page
K303		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm <sup>2</sup>	1	217
4698	□	Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	100	141
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	100	141
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	100	141
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	100	141
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	50	141
47410	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	50	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	30	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	30	141

### SK 43 NB Assortment box from plastic with insl. cable end-sleeves and tools



- ▶ With everything needed for conductor preparation
- ▶ Ideal for workshop equipment

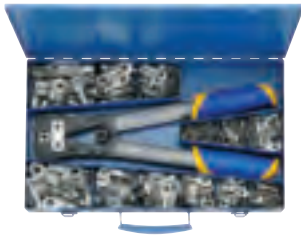
Item	Dimension mm	Part No.
Steel assortment box with insl. cable end-sleeves and tools	370 x 210 x 40	<b>SK43NB</b>

Scope of supply	Colour	Description	Quantity	Page
SK43L		Steel carrying case	1	193
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>	1	549
K303		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm <sup>2</sup>	1	217
4698	□	Insl. Cable end-sleeve, 0.5 mm <sup>2</sup> , 14 mm	500	141
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	500	141
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	400	141
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	400	141
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	300	141
47410	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	100	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	100	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	100	141



## SK 65 B Assortment box from steel with tubular cable lugs and crimping tool



- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

### Characteristics

- Sturdy steel carrying case with lock and handle

Item	Dimension mm	Part No.
Steel assortment box with tubular cable lugs "standard type" and crimping tool K05	400 x 250 x 50	<b>SK65B</b>

Scope of supply	Description	Quantity	Page
SK65L	Steel carrying case	1	195
K05	Crimping tool for tubular cable lugs and connectors, standard type 6 - 50 mm <sup>2</sup>	1	235
1R6	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M6, Cu tinned	25	14
1R8	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M8, Cu tinned	25	14
2R6	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M6, Cu tinned	25	14
2R8	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M8, Cu tinned	25	14
3R8	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M8, Cu tinned	25	14
3R10	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M10, Cu tinned	25	14
4R8	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M8, Cu tinned	25	14
4R10	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M10, Cu tinned	25	14
5R8	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M8, Cu tinned	20	14
5R10	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M10, Cu tinned	20	14
6R10	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M10, Cu tinned	20	15
6R12	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M12, Cu tinned	20	15

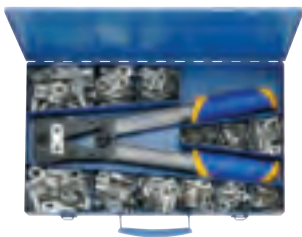
## EVERYTHING UNDER CONTROL!

A selection of the most commonly used tubular cable lugs, including crimping tool arranged in an assortment box. There are also other packages in an L-BOXX. (see page 200, for example)

The perfectly coordinated L-BOXXes stand for intelligent mobility and are used for storage and for transport from the workshop to the construction site.



## SK 50 B Steel assortment box with DIN compressed cable lugs and crimping tool



- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

### Characteristics

- Sturdy steel carrying case with lock and handle

Item	Dimension mm	Part No.	
Steel assortment box with DIN compression cable lugs and crimping tool	400 x 250 x 50	<b>SK50B</b>	
Scope of supply	Description	Quantity	Page
SK65L	Steel carrying case	1	195
K05D	Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 50 mm <sup>2</sup>	1	235
101R5	Compression cable lug, DIN 46235, 6 mm <sup>2</sup> , M5, Cu tinned	50	56
101R6	Compression cable lug, DIN 46235, 6 mm <sup>2</sup> , M6, Cu tinned	50	56
102R5	Compression cable lug, DIN 46235, 10 mm <sup>2</sup> , M5, Cu tinned	50	56
102R6	Compression cable lug, DIN 46235, 10 mm <sup>2</sup> , M6, Cu tinned	50	56
103R8	Compression cable lug, DIN 46235, 16 mm <sup>2</sup> , M8, Cu tinned	25	56
103R10	Compression cable lug, DIN 46235, 16 mm <sup>2</sup> , M10, Cu tinned	25	56
104R8	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M8, Cu tinned	25	56
104R10	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M10, Cu tinned	25	56
105R8	Compression cable lug, DIN 46235, 35 mm <sup>2</sup> , M8, Cu tinned	20	56
105R10	Compression cable lug, DIN 46235, 35 mm <sup>2</sup> , M10, Cu tinned	20	56
106R10	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M10, Cu tinned	15	57
106R12	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M12, Cu tinned	15	57

## MK 230 B 507 Steel assortment box with insl. cable connections and crimping tool



- ▶ Hammer-tone finished assortment box
- ▶ Ideal for workshop equipment

Item	Dimension mm	Part No.
Steel assortment box with insl. cable connections and crimping tool	366 x 230 x 51	<b>MK230B507</b>

Scope of supply	Colour	Description	Quantity	Page
MK230L		Steel carrying case	1	194
K507		Crimping tool with replaceable dies	1	243
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50	156
6205	■	Insl. solderless terminal M5, 0.5 - 1 mm <sup>2</sup>	50	156
6206	■	Insl. solderless terminal M6, 0.5 - 1 mm <sup>2</sup>	50	156
6304	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	50	156
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	50	156
6306	■	Insl. solderless terminal M6, 1.5 - 2.5 mm <sup>2</sup>	50	156
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	50	165
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	50	165
705	■	Insl. pin terminal, 0.5 - 1 mm <sup>2</sup> , 22 mm	50	158
710	■	Insl. pin terminal, 1.5 - 2.5 mm <sup>2</sup> , 23 mm	50	158
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50	161
830	■	Insl. tab 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50	164
620C4	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50	157
630C4	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	50	157
715	■	Insl. pin terminal, 0.1 - 0.4 mm <sup>2</sup> , 26 mm	25	158
700	■	Insl. butt connector, 4 - 6 mm <sup>2</sup>	25	165
6505	■	Insl. solderless terminal M5, 4 - 6 mm <sup>2</sup>	25	156
6506	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	25	156
650C6	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	25	157

## SK 82 P Assortment box from plastic with insl. cable connections and tools



- ▶ With everything needed for conductor preparation
- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Dimension mm	Part No.		
Plastic assortment box with insl. cable connections and tools	395 x 295 x 106	<b>SK82P</b>		
Scope of supply	Colour	Description	Quantity	Page
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>	1	549
K82A		Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	1	222
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50	156
6205	■	Insl. solderless terminal M5, 0.5 - 1 mm <sup>2</sup>	50	156
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	50	165
720	■	Insl. receptacle 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	50	161
6304	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	50	156
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	50	156
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	50	165
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50	161
6505	■	Insl. solderless terminal M5, 4 - 6 mm <sup>2</sup>	20	156
6506	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	20	156
700	■	Insl. butt connector, 4 - 6 mm <sup>2</sup>	20	165
715	■	Insl. pin terminal, 0.1 - 0.4 mm <sup>2</sup> , 26 mm	20	158
620C4	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	20	157
630C4	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	20	157
705	■	Insl. pin terminal, 0.5 - 1 mm <sup>2</sup> , 22 mm	20	158
710	■	Insl. pin terminal, 1.5 - 2.5 mm <sup>2</sup> , 23 mm	20	158

## SK 82 S Assortment box from plastic with insl. cable connections and crimping tool



- ▶ The exact-shaped foam inlays of the case prevent the contents slipping even with severe impacts

Item	Part No.			
Plastic assortment box with insl. cable connections and crimping tool	<b>SK82S</b>			
Scope of supply	Colour	Description	Quantity	Page
K82A		Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	1	222
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	20	156
6205	■	Insl. solderless terminal M5, 0.5 - 1 mm <sup>2</sup>	20	156
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	20	165
720	■	Insl. receptacle 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	20	161
6304	■	Insl. solderless terminal M4, 1.5 - 2.5 mm <sup>2</sup>	20	156
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	20	165
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	20	161
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	20	156



### SK 30 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 4 small and 1 large additional compartments with lock

**Suitable for**

- For optional storage of crimping tools type K1, K4, K46 and K48

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	200 x 140 x 40	1.2	<b>SK30L</b>

### SK 32 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 8 small and 1 large additional compartments with lock

**Suitable for**

- For optional storage of crimping tools type K3 and K35

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	285 x 155 x 45	1.3	<b>SK32L</b>

### SK 4 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 6 small and 1 large additional compartments with lock

**Suitable for**

- For optional storage of crimping tools type K02, K2, K16, K25, K28 and K29

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	370 x 160 x 40	1.4	<b>SK4L</b>

### SK 43 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 8 small and 2 large additional compartments with lock

**Suitable for**

- For storage of crimping tool K 32 and wire stripper K 41

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	370 x 210 x 40	1.9	<b>SK43L</b>



## MK 55 Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 8 small and 1 large additional compartments with lock

### Suitable for

- For storage of 8 pairs of dies and crimping tool K50

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	245 x 130 x 37	0.7	<b>MK55</b>

## MK 210 L Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 4 small and 1 large additional compartments with lock

### Suitable for

- For storage of crimping tools K 10 or K 82

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	250 x 155 x 40	1.0	<b>MK210L</b>

## MK 220 L Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 8 small and 1 large additional compartments with lock

### Suitable for

- For storage of crimping tools K 10 or K 82

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	370 x 160 x 40	1.4	<b>MK220L</b>

## MK 230 L Steel carrying case



▶ Hammer-tone finished assortment box

### Characteristics

- 19 small and 1 large additional compartments with lock and handle

### Suitable for

- For storage of crimping tools K 10 or K 82

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	366 x 230 x 51	2.4	<b>MK230L</b>



### SK 65 L Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 12 small and 1 large additional compartments with lock and handle

**Suitable for**

- For storage of crimping tools type K 05, K 05 BC, K 35/4

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	400 x 250 x 50	2.3	<b>SK65L</b>

### MK 18 Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

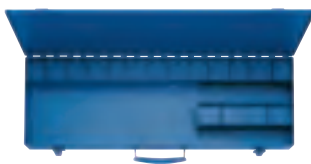
- 34 small and 1 large additional compartments with lock and handle

**Suitable for**

- For storage of 34 pairs of dies and crimping tool K 18

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	605 x 300 x 50	4.6	<b>MK18</b>

### MK 22 Steel carrying case



▶ Hammer-tone finished assortment box

**Characteristics**

- 17 small and 1 large additional compartments with lock and handle

**Suitable for**

- For storage of 17 pairs of dies and crimping tool K 22

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	600 x 220 x 65	3.5	<b>MK22</b>

### KKPE Plastic case



**Characteristics**

- With lock and handle

**Suitable for**

- For storing complete crimping die sets

Item	Part No.
Plastic case	<b>KKPE</b>
Plastic case	<b>KKPEH25</b>
Plastic case for crimping dies of series 13	<b>KKPE13</b>





## MK/KP 1 Plastic case



### Characteristics

- With lock and handle

### Suitable for

- For storage of crimping tools KP1 and KP1L and 10 crimping heads of the Klauke Pro Series

Item	Dimension mm	Weight kg	Part No.
Plastic case	395 x 295 x 106	1.0	<b>MKKP1</b>

## MKU Steel carrying case with wheels



▶ Hammer-tone finished assortment box

### Characteristics

- With additional compartment for dies with lock and handle

### Suitable for

- For storage of hydraulic crimping tools HK12/2, HK25/2 or HK45

Item	Dimension mm	Weight kg	Part No.
Steel carrying case	810 x 310 x 210	10.0	<b>MKU</b>

## TT2 Carrying case



### Suitable for

- For storing all crimping and cutting heads (excluding SDK 105, SDK 120 and PK1000)

Item	Weight kg	Part No.
Carrying bag	0.48	<b>TT2</b>

## TT4 Carrying case



### Suitable for

- For storage of cutting heads SDK 105 and SDK 120

Item	Weight kg	Part No.
Carrying bag	0.73	<b>TT4</b>





# SYSTEMATIC ORDER - L-BOXX FROM BS SYSTEMS

We must have order, especially when on the go. L-Boxx from BS Systems is a well thought out arrangement system for safely transporting your Klauke tool and connectors no matter what. Klauke products are safely stowed in the L-Boxx - matched to your individual equipment. Keep the overview!



## In brief

- ▶ Available in various sizes
- ▶ Maximum protection due to shock and impact resistant materials
- ▶ Easy to transport with practical handle on the cover and the sides
- ▶ Simple stacking of several boxes thanks to click system

## ▶ Large or small?

The L-Boxx provides the right tool every time. Select what you need from the broad range of sizes. The boxes are always shock and impact resistant and can be stacked without risk of slipping due to a click system.

- Available in various sizes
- Shock and impact resistant
- Easy to transport with practical handles on the cover and on the sides
- Safe transportation and storage due to click system



## ▶ Everything practically packed

The L-Box doesn't just stow your tools - they also assign them exactly the right storage location. Trust in our Klauke system of pre-stocked boxes for various applications.

- Pre-stocked boxes equipped to your needs
- Choice for differing areas of applications
- Everything to hand in one box

## ▶ Sorted on the go

Do you need your toolboxes on the go? With the TÜV-tested Sortimo vehicle equipment, all Klauke tools and ranges can be systematically and safely transported in L-Boxxes.

- Quickly located thanks to the Sortimo system overview
- Avoid injury by securing the boxes against accidents and braking actions
- Short searching time for efficient operations



## L-BOXX 65B from plastic with standard equipment for electrical installations



► Comprehensive equipment for conductor preparation, comprising cable cutter, cable knife, crimping tool and connectors

### Characteristics

- Manufactured from shock and impact resistant ABS plastic, very robust, 100 kg capacity
- Stackable using an Easy-Click system, which allows easy opening and closing

Item	Dimension mm	Part No.
L-BOXX from plastic with standard equipment for electrical installations	442 x 357 x 117	<b>LBOXX65B</b>

Scope of supply	Description	Quantity	Page
K05	Crimping tool for tubular cable lugs and connectors, standard type 6 - 50 mm <sup>2</sup>	1	235
K100	Hand-operated cutting tool for Cu and Al cables to 14 mm dia.	1	364
KL740416	Cable knife, without blade 4 - 16 mm dia.	1	552
1R6	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M6, Cu tinned	25	14
1R8	Tubular cable lug without inspection hole, 6 mm <sup>2</sup> , M8, Cu tinned	25	14
2R6	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M6, Cu tinned	25	14
2R8	Tubular cable lug without inspection hole, 10 mm <sup>2</sup> , M8, Cu tinned	25	14
3R10	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M10, Cu tinned	25	14
4R8	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M8, Cu tinned	20	14
4R10	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M10, Cu tinned	20	14
5R8	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M8, Cu tinned	20	14
5R10	Tubular cable lug without inspection hole, 35 mm <sup>2</sup> , M10, Cu tinned	20	14
6R10	Tubular cable lug without inspection hole, 50 mm <sup>2</sup> , M10, Cu tinned	15	15
LBOXX102LFG	L-BOXX with front handle	1	

## L-BOXX with electromechanical crimping tool EK 50 ML 0.14 to 50 mm<sup>2</sup> and extensive additional equipment



Item	Dimension mm	Part No.
L-BOXX with electromechanical crimping tool EK 50 ML 0.14 - 50 mm <sup>2</sup> and extensive additional equipment	442 x 357 x 151	<b>LBOXXEK50ML</b>

Scope of supply	Description	Quantity	Page
RAML1	Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	1	493
LGML1	Charger for 10.8 V Li-Ion batteries, 230 V	1	495
K118	Hand-operated cutting tool for Cu and Al cables to 12 mm dia.	1	364
KL645GSK	Cable knife with blade protection, 1,000 V	1	520
AE502	Crimping dies AE 50, 10 - 25 mm <sup>2</sup>	1	326
47612	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	50	141
47712	Insl. cable end-sleeve, 16 mm <sup>2</sup> , 24 mm	50	142
47818	Insl. cable end-sleeve DIN 46228 part 4, 25 mm <sup>2</sup>	25	142
R505	Crimping dies R 50, 16 - 25 mm <sup>2</sup>	1	326
3R8	Tubular cable lug without inspection hole, 16 mm <sup>2</sup> , M8, Cu tinned	25	14
4R8	Tubular cable lug without inspection hole, 25 mm <sup>2</sup> , M8, Cu tinned	25	14
AE503	Crimping dies AE 50, 35 - 50 mm <sup>2</sup>	1	326
47918	Insl. cable end-sleeve DIN 46228 part 4, 35 mm <sup>2</sup>	25	142
48025	Insl. cable end-sleeve DIN 46228 part 4, 50 mm <sup>2</sup> , 40 mm long	20	142
IS5072	Crimping dies IS 50, single crimping, 10 - 16 mm <sup>2</sup>	1	327
652C6	Insl. solderless terminal M6, 10 mm <sup>2</sup> , fork-type	50	80
LBOXX136LFG	L-BOXX with front handle (W/D/H: 442 x 357 x 151 mm)	1	

## L-BOXX 50B from plastic with standard equipment for electrical installations



► Comprehensive equipment for conductor preparation, comprising cable cutter, cable knife, crimping tool and connectors

### Characteristics

- Manufactured from shock and impact resistant ABS plastic, very robust, 100 kg capacity
- Stackable using an Easy-Click system, which allows easy opening and closing

Item	Dimension mm	Part No.	
L-BOXX from plastic with standard equipment for electrical installations	442 x 357 x 117	<b>LBOXX65B</b>	
Scope of supply	Description	Quantity	Page
K05D	Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 50 mm <sup>2</sup>	1	235
K100	Hand-operated cutting tool for Cu and Al cables to 14 mm dia.	1	364
KL740416	Cable knife, without blade 4 - 16 mm dia.	1	552
101R6	Compression cable lug, DIN 46235, 6 mm <sup>2</sup> , M6, Cu tinned	25	56
101R8	Compression cable lug, 6 mm <sup>2</sup> , M8, Cu tinned	25	56
102R6	Compression cable lug, DIN 46235, 10 mm <sup>2</sup> , M6, Cu tinned	25	56
102R8	Compression cable lug, 10 mm <sup>2</sup> , M8, Cu tinned	25	56
103R10	Compression cable lug, DIN 46235, 16 mm <sup>2</sup> , M10, Cu tinned	25	56
104R8	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M8, Cu tinned	20	56
104R10	Compression cable lug, DIN 46235, 25 mm <sup>2</sup> , M10, Cu tinned	20	56
105R8	Compression cable lug, DIN 46235, 35 mm <sup>2</sup> , M8, Cu tinned	15	56
106R8	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M8, Cu tinned	10	56
106R10	Compression cable lug, DIN 46235, 50 mm <sup>2</sup> , M10, Cu tinned	10	57
LBOXX102LFG	L-BOXX with front handle	1	



## L-BOXX 65BCB from plastic with blue connection® - equipment



► Extensive equipment based on the blue connection® product line, including crimping tool, cutting tool and cable knife

### Characteristics

- Manufactured from shock and impact resistant ABS plastic, very robust, 100 kg capacity
- Stackable using an Easy-Click system, which allows easy opening and closing

Item	Dimension mm	Part No.	
L-BOXX from plastic with blue connection® equipment	442 x 357 x 117	<b>LBOXX65BCB</b>	
Scope of supply	Description	Quantity	Page
K05BC	Crimping tool for tubular cable lugs and connectors, blue connection® 6 - 50 mm <sup>2</sup>	1	234
K100	Hand-operated cutting tool for Cu and Al cables to 14 mm dia.	1	364
KL740416	Cable knife, without blade 4 - 16 mm dia.	1	552
6B6	Tubular cable lugs, blue connection®, 6 mm <sup>2</sup> , M6, Cu	25	28
6B8	Tubular cable lugs, blue connection®, 6 mm <sup>2</sup> , M8, Cu	25	28
10B6	Tubular cable lugs, blue connection®, 10 mm <sup>2</sup> , M6, Cu	25	28
10B8	Tubular cable lugs, blue connection®, 10 mm <sup>2</sup> , M8, Cu	25	28
16B10	Tubular cable lugs, blue connection®, 16 mm <sup>2</sup> , M10, Cu	25	28
25B8	Tubular cable lugs, blue connection®, 25 mm <sup>2</sup> , M8, Cu	20	28
25B10	Tubular cable lugs, blue connection®, 25 mm <sup>2</sup> , M10, Cu	20	28
35B8	Tubular cable lugs, blue connection®, 35 mm <sup>2</sup> , M8, Cu	20	28
35B10	Tubular cable lugs, blue connection®, 35 mm <sup>2</sup> , M10, Cu	20	28
50B10	Tubular cable lugs, blue connection®, 50 mm <sup>2</sup> , M10, Cu	20	28
LBOXX102LFG	L-BOXX with front handle	1	

## L-BOXX 230 B from plastic with standard equipment for electrical installations



Item	Dimension mm	Part No.		
L-BOXX from plastic with standard equipment for electrical installations	442 x 357 x 117	<b>LBOXX230B</b>		
Scope of supply	Colour	Description	Quantity	Page
K432		Automatic wire stripper K43/2 0.02 - 10 mm <sup>2</sup>	1	549
K507		Crimping tool with replaceable dies	1	243
720	■	Insl. receptacle 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	50	161
730	■	Insl. receptacle 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50	161
820	■	Insl. tab 6.3 x 0.8 mm, 0.5 - 1 mm <sup>2</sup>	50	164
830	■	Insl. tab 6.3 x 0.8 mm, 1.5 - 2.5 mm <sup>2</sup>	50	164
6204	■	Insl. solderless terminal M4, 0.5 - 1 mm <sup>2</sup>	50	156
6305	■	Insl. solderless terminal M5, 1.5 - 2.5 mm <sup>2</sup>	50	156
6506	■	Insl. solderless terminal M6, 4 - 6 mm <sup>2</sup>	50	156
670	■	Insl. butt connector, 0.5 - 1 mm <sup>2</sup>	50	165
680	■	Insl. butt connector, 1.5 - 2.5 mm <sup>2</sup>	50	165
700	■	Insl. butt connector, 4 - 6 mm <sup>2</sup>	25	165
1652C5		Solderless terminals fork type 10 mm <sup>2</sup> , M5	50	78
1652C6		Solderless terminals fork type 10 mm <sup>2</sup> , M6	50	78
16505		Solderless terminals DIN 46234, 4 - 6 mm <sup>2</sup> , M5, Cu tinned	50	74
16506		Solderless terminals DIN 46234, 4 - 6 mm <sup>2</sup> , M6, Cu tinned	50	74
4708	■	Insl. cable end-sleeve, 0.75 mm <sup>2</sup> , 14 mm	400	141
4718	■	Insl. cable end-sleeve, 1 mm <sup>2</sup> , 14 mm	400	141
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	400	141
4738	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 14 mm	200	141
47410	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 17 mm	100	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	100	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	100	141
LBOXX102LFG		L-BOXX with front handle	1	

## L-BOXX Mini from plastic with crimping tool and insl. cable end-sleeves 0.5 - 16 mm<sup>2</sup>



Item	Part No.			
L-BOXX from plastic with crimping tool and cable end-sleeves 0.5 - 16 mm <sup>2</sup>	<b>LBOXXMINIK3</b>			
Scope of supply	Colour	Description	Quantity	Page
K3		Crimping tool for cable end-sleeves 0.5 - 16 mm <sup>2</sup>	1	211
K118		Hand-operated cutting tool for Cu and Al cables to 12 mm dia.	1	364
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	100	141
47312	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 18 mm	100	141
47412	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 20 mm	50	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	50	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	30	141
LBOXXMINIL		L-BOXX "Mini"	1	



L-BOXX Mini from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm<sup>2</sup>



Item	Part No.			
L-BOXX from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	<b>LBOXXMINIK306K</b>			
Scope of supply	Colour	Description	Quantity	Page
K306K		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm <sup>2</sup>	1	217
K118		Hand-operated cutting tool for Cu and Al cables to 12 mm dia.	1	364
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	100	141
47312	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 18 mm	100	141
47412	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 20 mm	50	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	50	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	30	141
LBOXXMINIL		L-BOXX "Mini"	1	

L-BOXX Mini from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm<sup>2</sup>



Item	Part No.			
L-BOXX from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	<b>LBOXXMINIK304K</b>			
Scope of supply	Colour	Description	Quantity	Page
K304K		K 30/4 K crimping tool for cable end-sleeves 0.08 to 16 mm <sup>2</sup> and twin cable end-sleeves 2 x 0,5 - 2 x 6 mm <sup>2</sup>	1	217
K118		Hand-operated cutting tool for Cu and Al cables to 12 mm dia.	1	364
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	100	141
47312	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 18 mm	100	141
47412	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 20 mm	50	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	50	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	30	141
LBOXXMINIL		L-BOXX "Mini"	1	

L-BOXX Mini from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm<sup>2</sup>



Item	Part No.			
L-BOXX from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	<b>LBOXXMINIK3014K</b>			
Scope of supply	Colour	Description	Quantity	Page
K3014K		Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm <sup>2</sup>	1	218
K118		Hand-operated cutting tool for Cu and Al cables to 12 mm dia.	1	364
4728	■	Insl. cable end-sleeve, 1.5 mm <sup>2</sup> , 14 mm	100	141
47312	■	Insl. cable end-sleeve, 2.5 mm <sup>2</sup> , 18 mm	100	141
47412	■	Insl. cable end-sleeve, 4 mm <sup>2</sup> , 20 mm	50	141
47512	■	Insl. cable end-sleeve, 6 mm <sup>2</sup> , 20 mm	50	141
47612	■	Insl. cable end-sleeve, 10 mm <sup>2</sup> , 22 mm	30	141
LBOXXMINIL		L-BOXX "Mini"	1	

## L-BOXXes with the new battery powered tools of the NEXT GENERATION



**NEW**

This is just a small extract of our range. If you need a different combination, contact us.

### Bosch battery

Tool	Crimping	Cutting	Punching	Part No.
EK 35/4	6 - 150 mm <sup>2</sup>			LBOXXEK354CFB
EK 50/5	6 - 240 mm <sup>2</sup>			LBOXXEK505CFB
EK 50/18	6 - 240 mm <sup>2</sup>			LBOXXEK5018CFB
EKM 60/22	6 - 300 mm <sup>2</sup>			LBOXXEKM6022CFB
EKM 60 ID	10 - 240 mm <sup>2</sup>			LBOXXEKM60IDCFB
ES 20		max. 20 mm dia.		LBOXXES20CFB
ES 32 F		max. 32 mm dia.		LBOXXES32FCFB
ES 32		max. 32 mm dia.		LBOXXES32CFB
EKM 60 UNV	6 - 300 mm <sup>2</sup>	max. 25 mm dia.	round/shape	LBOXXEKM60UNVCFB
LS 50 FLEX			round/shape	LBOXXLS50FLEXCFB

### Makita battery

Tool	Crimping	Cutting	Punching	Part No.
EK 35/4	6 - 150 mm <sup>2</sup>			LBOXXEK354CFM
EK 50/5	6 - 240 mm <sup>2</sup>			LBOXXEK505CFM
EK 50/18	6 - 240 mm <sup>2</sup>			LBOXXEK5018CFM
EKM 60/22	6 - 300 mm <sup>2</sup>			LBOXXEKM6022CFM
EKM 60 ID	10 - 240 mm <sup>2</sup>			LBOXXEKM60IDCFM
ES 20		max. 20 mm dia.		LBOXXES20CFM
ES 32 F		max. 32 mm dia.		LBOXXES32FCFM
ES 32		max. 32 mm dia.		LBOXXES32CFM
EKM 60 UNV	6 - 300 mm <sup>2</sup>	max. 25 mm dia.	round/shape	LBOXXEKM60UNVCFM
LS 50 FLEX			round/shape	LBOXXLS50FLEXCFM

### Crimping & cutting

(shown is the scope of supply with Bosch battery)



Part No.	Scope of supply	LBOXX-								
		EK354	EK505	EK5018	EKM6022	EKM60ID	ES20	ES32	ES32F	EKM60UNV
RALB1EU	Bosch battery 18 V / 2.0 Ah, Li-Ion	•	•	•	•	•	•	•	•	•
LGLB1EU	Bosch charger for 18 V Li-Ion batteries	•	•	•	•	•	•	•	•	•
UA22	Adapter for crimping dies									•
LBOXX136LFG	L-BOXX (W/D/H: 442 x 357 x 151 mm)	•	•	•	•	•	•	•	•	•

### Punching

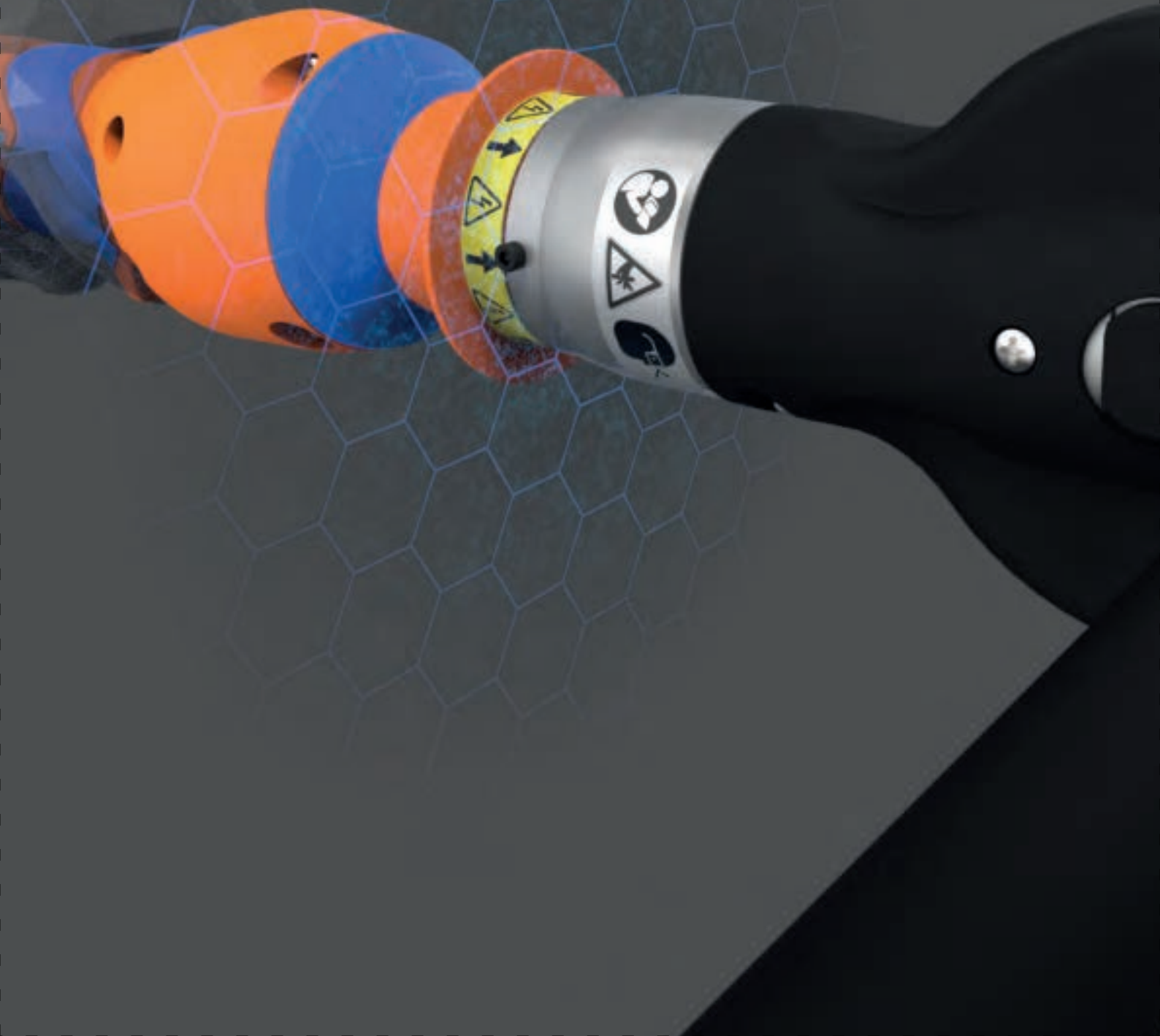
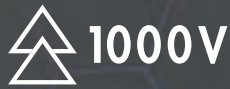
(shown is the scope of supply with Bosch battery)



LBOXXLS50FLEX								
Part No.	RALB2EU	LGLB1EU	50318721	50032488	52049371	51300430	50339672	LBOXX136GL
Scope of supply	Bosch battery 18 V / 5.0 Ah, Li-Ion	Bosch charger for 18 V Li-Ion batteries	Draw stud for hydraulic operation 19 x 105 mm	Spacer, short	Kwik Stepper™ step bit with ROTASTOP® shaft 6-21 mm	Draw stud for punch with hydraulic operation 9.5 x 71 mm	Adapter 19 x 48 mm with internal thread 9.5 mm	L-BOXX (W/D/H: 442 x 357 x 151 mm)

# THE TOOL RANGE FOR MAXIMUM SAFETY

Integrated Voltage Protection up to 1,000 V





# Orange Line

<b>VDE-battery powered crimping and cutting tools Orange Line</b>	<b>205-3</b>
VDE-battery powered crimping tools Orange Line	<b>205-5</b>
VDE-battery powered cutting tools Orange Line	<b>205-8</b>

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# VDE TESTED AND CERTIFIED UP TO 1,000 V

## Globally Unique

Our Orange Line series of battery powered hydraulic cutting and crimping tools are the world's first tools of their kind offering protection from electric shocks up to 1,000 V. The insulation barrier, which was developed in-house, prevents voltage discharging between tool head and tool body.

Every single tool is tested for compliance with the high requirements of IEC 60900 in our production process.

This guarantees voltage protection up to 1,000 V.



REG F647



VDE tested and certified to 1,000 V in accordance to the electrical requirements of IEC 60900 and fully certified to IEC 62841-1

### In brief

- ▶ Applied voltage at the tool head does not disrupt to tool body
- ▶ Integrated slip-off protection prevents unintentional contact with live parts
- ▶ Housing in signal orange for simple differentiation from standard tools

**▶ Much safer operations**

Working on live parts in low-voltage areas up to 1,000 V is often a part of every day work in certain sectors. Until now, such tasks have required the use of insulated hand tools. Our new Orange Line series offers now for the first time battery-powered cutting and crimping tools which significantly increase user safety.

In addition, our insulated tools are much safer to use in all applications involving potentially live parts. Working on supposedly de-energized parts always carried a residual risk in the past, but electrical accidents in the low voltage area up to 1,000 V can now be actively prevented.



Accidental touching of live parts is prevented by standard-conforming slip-off protection

**▶ Safe and convenient**

Electrical system cannot be de-energized or disconnected in many cases, so working on live cables cannot be avoided. Our Oranges Line of battery powered crimping and cutting tools increase operating comfort and safety significantly in these cases. They are suitable for all applications in the low-voltage area up to 1,000 V: from the installation of cable joints and working on overhead transmission lines to mounting and repairing street lighting or meter systems.



The tried and proven functions of our Next Generation remain in place. Hence you can see all information at a glance, thanks to the integrated display. Orange Line tools also have a continuously rotating tool head.





## Crimping

VDE-battery powered crimping tools Orange Line

### EKM 60/22 IS VDE-battery powered hydraulic crimping tool 6 - 300 mm<sup>2</sup>



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ All tool data in view thanks to the built-in display

#### Characteristics

- Closed head with bolt interlock, rotatable, flip top style
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- 22-series interchangeable crimping dies, narrow crimping













































Technical data	
Crimping force	60 kN
Hub	17.5 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	2 s (for ARS) to 5 s (depending on cross-section)
Charging time	15 min.
Weight incl. battery	3.1 kg
Ambient temperature	-10 °C up to +40 °C
Item	Part No.
VDE-battery powered hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>EKM6022ISM</b>
Scope of supply	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50IS
Accessories	
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40





## Available dies for Series 22 for EKM 60/22 IS

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 300		342
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		341
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		341
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		342
Tubular cable lugs and connectors for solid conductors		10 - 50		342
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		342
Nickel tubular cable lugs and connectors		10 - 50		342
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		343
Double compression cable lugs		2 x 50 - 2 x 70		343
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		343
Insulated solderless terminals		10 - 70		343
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 240 sm		344
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 300		344
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		344
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		345
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		345
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 - 300		344
<b>Clamps</b>				
Clamps, C-type		4 - 70		345
Clamps, H-type		70		345
<b>Cable end-sleeves</b>				
Twin cable end-sleeves		2 x 4 - 2 x 16		346
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 240		346
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		346



# Crimping

VDE-battery powered crimping tools Orange Line

## EKM 60 ID IS VDE-battery powered hydraulic crimping tool 10 - 240 mm<sup>2</sup>



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ Extra large crimping area due to innovative 2-stage telescopic cylinders (patent pending)
- ▶ Indent crimping - no crimping dies required
- ▶ All tool data in view thanks to the built-in display

### Characteristics

- With innovative 2-stage telescopic cylinder
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Very well suited for compacted conductors
- Especially for fine strand conductors to DIN VDE 60228

Technical data	
Crimping force	30 - 60 kN
Stroke / opening width	35.5 mm
Crimping range Cu	10 - 240 mm <sup>2</sup>
Crimping range Al	50 - 240 mm <sup>2</sup>
Crimping cycle	2 s (MRS+) to 7 s (depending on cross-section)
Charging time	15 min.
Weight incl. battery	2.6 kg
Ambient temperature	-10 °C up to +40 °C



Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, Tubular cable lugs for switch gear connections		10 - 240	
Tubular cable lugs and connectors for fine stranded conductors		10 - 240	
<b>Terminals, connectors and pin terminals acc. to DIN</b>			
Solderless terminals (DIN 46234) connectors and pin terminals (DIN 46230, DIN 46341)		10 - 240	
<b>Aluminum compression cable lugs and connectors</b>			
Aluminum compression cable lugs and connectors acc. to DIN		50 - 240	
Compression joints acc. to DIN 48085, part 3 for Al/St-cable acc. to DIN EN 50182		50 - 240	
<b>Aluminum/copper compression cable lugs and connectors</b>			
Aluminum/copper compression cable lugs and connectors		50 - 240	

Item	Part No.
VDE-battery powered hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>EKM60IDISM</b>
<b>Scope of supply</b>	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50IS
<b>Accessories</b>	
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40



## ESM 50 ISM VDE-battery powered hydraulic cutting tool 50 mm dia. for copper and aluminium cable



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ High cutting force cuts copper and aluminium cables (also fine stranded)
- ▶ Saves time thanks to innovative opening mechanism
- ▶ All tool data in view thanks to the built-in display

### Characteristics

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Cu and Al cables (multi and fine stranded) even armoured cable

Technical data	
Head type	cutter open
Cutting range	max. 50 mm dia.
Cutting force	38 kN
Cutting cycle	8 s to 10 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
VDE Battery powered hydraulic cutting tool 50 mm dia. with Makita battery	<b>ESM50ISM</b>
Scope of supply	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50IS
Accessories	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2



1000V



## Cutting

VDE-battery powered cutting tools Orange Line

### ES 20 ISM VDE-battery powered hydraulic cutting tool 20 mm dia.



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ Extremely robust design and lightweight
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to the built-in display

#### Characteristics

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Al/St-wire (ACSR)



Technical data	
Cutting range	max. 18 mm dia. (depending on cable type)
Cutting force	23 kN
Cutting cycle	2 s up to 4 s (depending on cable type)
Charging time	15 min.
Weight incl. battery	2.1 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
VDE Battery powered hydraulic cutting tool 20 mm dia. with Makita battery	<b>ES20ISM</b>
Scope of supply	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50IS
Accessories	
Makita battery 18 V / 3.0 Ah, Li-Ion	RAL2
Replacement blade	ES20E

ES 32 ISM VDE-battery powered hydraulic cutting tool 32 mm dia.



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to the built-in display

**Characteristics**

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- Stranded Cu and Al cables



Technical data	
Head type	cutter open
Cutting range	max. 32 mm dia.
Cutting force	15 kN
Cutting cycle	8 s up to 10 s (depending on cable type)
Charging time	15 min.
Weight incl. battery	2.1 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
VDE Battery powered hydraulic cutting tool 32 mm dia. with Makita battery	<b>ES32ISM</b>
<b>Scope of supply</b>	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50IS
<b>Accessories</b>	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2
Replacement blade set	ES32E



### ESM 35 ISM VDE-battery powered hydraulic cutting tool 35 mm dia. for copper and aluminium cable



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ High cutting force cuts copper and aluminium cables (also fine stranded)
- ▶ All tool data in view thanks to the built-in display

#### Characteristics

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cables (multi and fine stranded) even armoured cable

#### Technical data

Head type	cutter open
Cutting range	max. 35 mm dia.
Cutting force	25 kN
Cutting cycle	4 s up to 6 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	2.9 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
VDE Battery powered hydraulic cutting tool 35 mm dia. with Makita battery	<b>ESM35ISM</b>
<b>Scope of supply</b>	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50IS
<b>Accessories</b>	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2



1000 V

ESM 25 IS VDE-battery powered hydraulic cutting tool 25 mm dia.

NEW

2



- ▶ Housing in signal orange for simple differentiation from standard tools
- ▶ Insulated and VDE certified up to 1,000 V for increased safety when working on potentially voltage-carrying parts
- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, steel rods and stay wire
- ▶ Extremely robust design and lightweight
- ▶ All tool data in view thanks to the built-in display

**Characteristics**

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- Open wires (ACSR, Aldrey), stay wire and high-tensile stay wire



1000V

Technical data	
Head type	cutter open
Cutting range	Open wire (ACSR, Aldrey) up to dia. 25 mm, stay wire up to dia. 16 mm, hightensile stay wire up to dia. 12 mm
Cutting force	67 kN
Cutting cycle	depending on material thickness
Charging time	15 min.
Weight incl. battery	2.9 kg
Ambient temperature	-10 °C up to +40 °C
Item	Part No.
VDE Battery powered hydraulic cutting tool 25 mm dia. with Makita battery	<b>ESM25ISM</b>
Scope of supply	
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1
Makita quick-charger for 18 V Li-Ion battery	LGL1
Plastic case	KK50IS
Accessories	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2



# PERFECT CRIMPED CONNECTIONS FOR SURE.

Klauke crimping tools give you peace of mind for optimum processing. The right crimping tool achieves connections that satisfy even the toughest requirements.





# Crimping

<b>Mechanical crimping tools</b>	<b>208</b>
Mechanical crimping tools	210
Mechanical crimping tools with interchangeable dies	240
<hr/>	
<b>Electromechanical crimping tool</b>	<b>253</b>
<hr/>	
<b>Battery powered crimping tool</b>	<b>257</b>
10.8 V - base	257
18 V - base	264
Battery powered universal tools	288
<hr/>	
<b>Hand-operated hydraulic crimping tools</b>	<b>291</b>
<hr/>	
<b>Hydraulic crimping heads and crimping systems</b>	<b>305</b>
Hydraulic crimping heads	306
Hydraulic crimping systems	320
<hr/>	
<b>Crimping dies</b>	<b>324</b>
Series 50	326
Series 4	328
Series 5	333
Series 18	337
Series 22	341
Series 13	347
Series 15	352
Series 25	353
Series 45	358
Series 100	359



# FULL FORCE TRANSMISSION - MECHANICAL CRIMPING TOOLS

Less force is more. Klauke crimping tools were developed specifically to make your work faster, more precise and simpler. Ergonomic handles ensure the right grip, improved lever effects provide a manual actuation that transmits your force exactly where it's needed: With 33 % less effort.



### In brief

- ▶ Effortless operation due to a third less force
- ▶ Exact crimping with precise actuation
- ▶ Reliable assignment through clear marking of the crimping profiles
- ▶ Durable material
- ▶ Individually selectable crimping profiles from 0.08 mm<sup>2</sup> to 400 mm<sup>2</sup>



## ► Developed for a broad range of applications

To ensure efficient crimps, a good tool needs optimum force transmission and high-quality materials. So we developed our mechanical series to make your work easier. These function make the difference especially with frequent use.

- Crimping profiles with nominal cross-sections from 0.08 mm<sup>2</sup> to 400 mm<sup>2</sup>
- High-quality steel for long service life
- Best possible force transmission: Up to 33 % less effort
- Optimum crimp results with integrated ratchet
- Ergonomic design for fast and effortless operations





### K 4 Crimping tool for cable end-sleeves 0.5 - 2.5 mm<sup>2</sup>



- ▶ Indent crimping for round clamp opening
- ▶ Simple and quick due to spring-actuated tool opening

#### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle

#### Technical data

Crimping range	0.5 - 2.5 mm <sup>2</sup>
Length	150 mm
Weight	0.16 kg

Item	Part No.	
Crimping tool for cable end-sleeves 0.5 - 2.5 mm <sup>2</sup>	<b>K4</b>	
Accessories	Part No.	Page
Steel carrying case	SK30L	193

### K 46 Crimping tool for cable end-sleeves 1.5 - 6 mm<sup>2</sup>



- ▶ Indent crimping for round clamp opening
- ▶ Simple and quick due to spring-actuated tool opening

#### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle

#### Technical data

Crimping range	1.5 - 6 mm <sup>2</sup>
Length	150 mm
Weight	0.16 kg

Item	Part No.	
Crimping tool for cable end-sleeves 1.5 - 6 mm <sup>2</sup>	<b>K46</b>	
Accessories	Part No.	Page
Steel carrying case	SK30L	193

### K 3 Crimping tool for cable end-sleeves 0.5 - 16 mm<sup>2</sup>



- ▶ Indent crimping for round clamp opening
- ▶ With wire cutter

#### Characteristics

- Optimum handling due to ergonomically-shaped handle
- Optimised crimp range (up to 3-times wider than before)
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Integrated cable stripper

#### Technical data

Crimping range	0.5 - 16 mm <sup>2</sup>
Length	230 mm
Weight	0.35 kg

Item	Part No.	
Crimping tool for cable end-sleeves 0.5 - 16 mm <sup>2</sup>	<b>K3</b>	
Accessories	Part No.	Page
Steel carrying case	SK32L	193
Variants	Part No.	Page
Steel assortment box with cable end-sleeves and crimping tool	SK32B	186
Steel assortment box with incl. cable end-sleeves and crimping tool	SK47B	187
L-BOXX from plastic with crimping tool and cable end-sleeves 0.5 - 16 mm <sup>2</sup>	LBOXXMINIK3	203

### K 35 Crimping tool for cable end-sleeves 10 - 35 mm<sup>2</sup>



- ▶ Indent crimping for round clamp opening
- ▶ For large cross-sections to 35 mm<sup>2</sup>

#### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle

#### Technical data

Crimping range	10 - 35 mm <sup>2</sup>
Length	230 mm
Weight	0.24 kg

Item	Part No.	
Crimping tool for cable end-sleeves 10 - 35 mm <sup>2</sup>	<b>K35</b>	
Accessories	Part No.	Page
Steel carrying case	SK32L	193



### K 1 Crimping tool for cable end-sleeves 0.14 - 2.5 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals
- ▶ Quick repetition of work steps due to spring-actuated tool opening
- ▶ With wire stripping and cutting tool

#### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle
- Interchangeable stripping blades

Technical data		
Crimping range	0.14 - 2.5 mm <sup>2</sup>	
Length	175 mm	
Weight	0.19 kg	
Item	Part No.	
Crimping tool for cable end-sleeves 0.14 - 2.5 mm <sup>2</sup>	<b>K1</b>	
Accessories	Part No.	Page
Steel carrying case	SK30L	193

### K 48 Crimping tool for cable end-sleeves 0.14 - 2.5 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals
- ▶ Quick repetition of work steps due to spring-actuated tool opening

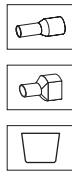
#### Characteristics

- One crimp profile per cross-section
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Optimum handling due to ergonomically-shaped handle

Technical data		
Crimping range	0.14 - 2.5 mm <sup>2</sup>	
Length	150 mm	
Weight	0.16 kg	
Item	Part No.	
Crimping tool for cable end-sleeves 0.14 - 2.5 mm <sup>2</sup>	<b>K48</b>	
Accessories	Part No.	Page
Steel carrying case	SK30L	193
Variants	Part No.	Page
Steel assortment box with cable end-sleeves and crimping tool	SK30B	185
Steel assortment box with incl. cable end-sleeves and crimping tool	SK45B	186



## K 36 Crimping tool for cable end-sleeves and twin cable end-sleeves 0.5 - 6 mm<sup>2</sup>



- ▶ Two crimping profiles with the cross-section areas 0.5 - 2.5 mm<sup>2</sup> and 4 - 6 mm<sup>2</sup>
- ▶ Quick repetition of work steps due to spring-actuated tool opening

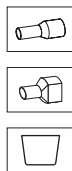
### Characteristics

- Front sleeve insertion (front crimping)
- Ergonomically-designed handle with slip guard

### Technical data

Crimping range cable end-sleeves	0.5 - 2.5 and 4 - 6 mm <sup>2</sup>	
Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 1.5 and 2 x 2.5 - 2x4 mm <sup>2</sup>	
Length	200 mm	
Weight	0.22 kg	
Item	Part No.	
Crimping tool for cable end-sleeves 0.5 - 6 mm <sup>2</sup> and twin cable end-sleeves 2 x 0.25 - 2 x 1.5 and 2 x 2.5 - 2 x 4 mm <sup>2</sup>	<b>K36</b>	
Accessories	Part No.	Page
Steel carrying case	SK32L	193

## K 32 Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 6 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals
- ▶ One crimping profile for cross-sections from 0.14 - 6 mm<sup>2</sup> due to automatic cross-section adjustment
- ▶ Quick repetition of work steps due to spring-actuated tool opening

### Characteristics

- With ratchet for consistently-controlled crimp results
- Front sleeve insertion (front crimping)
- Optimum handling due to ergonomically-shaped handle
- Handle with slip guard and inscription panel

### Technical data

Crimping range cable end-sleeves	0.14 - 6 mm <sup>2</sup>	
Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 2.5 mm <sup>2</sup>	
Length	210 mm	
Weight	0.35 kg	
Item	Part No.	
Crimping tool for cable end-sleeves 0.14 - 6 mm <sup>2</sup> and twin cable end-sleeves 2 x 0.5 - 2 x 2.5 mm <sup>2</sup>	<b>K32</b>	
Accessories	Part No.	Page
Steel carrying case	SK43L	193



## Crimping

Mechanical crimping tools

### K 34 Crimping tool for cable end-sleeves and twin cable end-sleeves 6 - 16 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals
- ▶ Quick repetition of work steps due to spring-actuated tool opening
- ▶ One crimping profile for cross-sections from 6 - 16 mm<sup>2</sup> due to automatic cross-section adjustment

#### Characteristics

- With ratchet for consistently-controlled crimp results
- Front sleeve insertion (front crimping)
- Handle with slip guard and inscription panel

#### Technical data

Crimping range cable end-sleeves	6 - 16 mm <sup>2</sup>
----------------------------------	------------------------

Crimping range twin cable end-sleeves	2 x 4 - 2 x 6 mm <sup>2</sup>
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Length	210 mm
--------	--------

Weight	0.5 kg
--------	--------

Item	Part No.
Crimping tool for cable end-sleeves 6 - 16 mm <sup>2</sup> and twin cable end-sleeves 2 x 4 - 2 x 6 mm <sup>2</sup>	<b>K34</b>

Accessories	Part No.	Page
Steel carrying case	SK43L	193

### K 37 Crimping tool for cable end-sleeves 0.14 - 6 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals
- ▶ Tool pre-tensioning adjustable

#### Characteristics

- Adjusting disc for compensating for the natural tool wear
- One crimp profile per cross-section
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

#### Technical data

Crimping range	0.14 - 6 mm <sup>2</sup>
----------------	--------------------------

Length	200 mm
--------	--------

Weight	0.36 kg
--------	---------

Item	Part No.
Crimping tool for cable end-sleeves 0.14 - 6 mm <sup>2</sup>	<b>K37</b>

Accessories	Part No.	Page
Steel carrying case	SK43L	193

### K 39 Crimping tool for cable end-sleeves 10 - 25 mm<sup>2</sup>



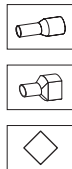
- ▶ Trapezoid crimping suitable for box terminals
- ▶ Sustainable crimps due to adjustable tool pre-tensioning

#### Characteristics

- Adjusting disc for compensating for the natural tool wear
- One crimp profile per cross-section
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

Technical data		
Crimping range	10 - 25 mm <sup>2</sup>	
Length	200 mm	
Weight	0.36 kg	
Item	Part No.	
Crimping tool for cable end-sleeves 10 - 25 mm <sup>2</sup>	<b>K39</b>	
Accessories	Part No.	Page
Steel carrying case	SK43L	193

### K 38/2 Crimping tool for cable end-sleeves and twin cable end-sleeves 0.5 - 6 mm<sup>2</sup>



- ▶ Square crimping suitable for box terminals and spring clamp technology
- ▶ Adjusting disc to compensate for the natural tool wear
- ▶ One crimping profile for cross-sections from 0.5 - 6 mm<sup>2</sup> due to automatic cross-section adjustment

#### Characteristics

- Accurate drive
- With ratchet for consistently-controlled crimp results
- Front sleeve insertion (front crimping)

Technical data		
Crimping range cable end-sleeves	0.5 - 6 mm <sup>2</sup>	
Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 2.5 mm <sup>2</sup>	
Length	190 mm	
Weight	0.3 kg	
Item	Part No.	
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.5 - 6 mm <sup>2</sup>	<b>K382</b>	
Accessories	Part No.	Page
Steel carrying case	SK43L	193



### K 30/3 Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm<sup>2</sup>



► Square crimping suitable for box terminals and spring clamp technology

#### Characteristics

- One crimping profile for cross-sections from 0.08-10 mm<sup>2</sup> due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Handle with slip guard and inscription panel

#### Technical data

Crimping range cable end-sleeves 0.08 - 10 mm<sup>2</sup>

Crimping range twin cable end-sleeves 2 x 0.25 - 2 x 4 mm<sup>2</sup>

Length 190 mm

Weight 0.3 kg

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 10 mm <sup>2</sup>	<b>K303</b>

Accessories	Part No.	Page
Steel carrying case	SK30L	193

Variants	Part No.	Page
Plastic assortment box with insl. cable end-sleeves and tools	SK303P	187
Plastic assortment box with insl. cable end-sleeves and crimping tool	SK303S	188
Steel assortment box with insl. cable end-sleeves and tools	SK43NB	188

### K 30/4 K Self-adjusting crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm<sup>2</sup>



► Square crimping K 30/4 K

#### Characteristics

- One crimping profile for cross-sections from 0.08-16 mm<sup>2</sup> due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Positioner for small cable end-sleeves
- Handle with slip guard and inscription panel

#### Technical data

Crimping range cable end-sleeves 0.08 - 16 mm<sup>2</sup>

Crimping range twin cable end-sleeves 2 x 0.5 - 2 x 6 mm<sup>2</sup>

Length 215 mm

Weight 0.5 kg

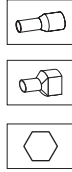
Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm <sup>2</sup> , square crimping	<b>K304K</b>

Accessories	Part No.	Page
Steel carrying case	SK30L	193

Variants	Part No.	Page
L-BOXX from plastic with crimping tool and insl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	LBOXXMINIK304K	204



**K 30/6 K Self-adjusting crimping tool  
for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm<sup>2</sup>**



► Hexagonal crimping K 30/6 K

**Characteristics**

- One crimping profile for cross-sections from 0.08-16 mm<sup>2</sup> due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Positioner for small cable end-sleeves
- Handle with slip guard and inscription panel

Technical data

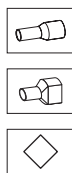
Crimping range cable end-sleeves	0.08 - 16 mm <sup>2</sup>
Crimping range twin cable end-sleeves	2 x 0.5 - 2 x 10 mm <sup>2</sup>
Length	215 mm
Weight	0.5 kg

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.08 - 16 mm <sup>2</sup> , hexagonal crimping	<b>K306K</b>

Accessories	Part No.	Page
Steel carrying case	SK30L	193

Variants	Part No.	Page
L-BOXX from plastic with crimping tool and incl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	LBOXXMINIK306K	204

**K 301/4 K Self-adjusting crimping tool  
for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm<sup>2</sup>**



► Square crimping  
► Very light and ergonomic

**Characteristics**

- One crimping profile for all cross-sections due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Handle with slip guard and inscription panel
- Safety pad in handle for slip-free working

Technical data

Crimping range cable end-sleeves	0.14 - 10 mm <sup>2</sup>
Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 4 mm <sup>2</sup>
Length	175 mm
Weight	0.35 kg

Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm <sup>2</sup>	<b>K3014K</b>

Variants	Part No.	Page
L-BOXX from plastic with crimping tool and incl. cable end-sleeves 1.5 - 10 mm <sup>2</sup>	LBOXXMINIK3014K	204



### K 301/6 K Self-adjusting crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm<sup>2</sup>



► Very light and ergonomic

#### Characteristics

- One crimping profile for all cross-sections due to automatic cross-section adjustment
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Handle with slip guard and inscription panel
- Safety pad in handle for slip-free working

#### Technical data

Crimping range cable end-sleeves	0.14 - 10 mm <sup>2</sup>
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Crimping range twin cable end-sleeves	2 x 0.25 - 2 x 4 mm <sup>2</sup>
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Length	175 mm
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Weight	0.35 kg
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Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 0.14 - 10 mm <sup>2</sup>	<b>K3016K</b>

### K 27/1 Crimping tool for cable end-sleeves and twin cable end-sleeves 2 x 4 - 50 mm<sup>2</sup>



- Special trapezoid crimping suitable for box terminals
- Special type, especially suitable for fine-stranded conductors

#### Characteristics

- One crimp profile per cross-section
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Handle with slip guard and inscription panel

#### Technical data

Crimping range cable end-sleeves	10 - 50 mm <sup>2</sup>
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Crimping range twin cable end-sleeves	2 x 4 - 2 x 16 mm <sup>2</sup>
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Length	335 mm
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Weight	0.8 kg
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Item	Part No.
Crimping tool for cable end-sleeves and twin cable end-sleeves 2 x 4 - 50 mm <sup>2</sup>	<b>K271</b>

Accessories	Part No.	Page
Steel carrying case	SK4L	193

## K 27/2 Crimping tool for cable end-sleeves 50 - 95 mm<sup>2</sup>



- ▶ Special trapezoid crimping suitable for box terminals
- ▶ Special type, especially suitable for fine-stranded conductors
- ▶ For large cross-sections to 95 mm<sup>2</sup>

### Characteristics

- One crimp profile per cross-section
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Handle with slip guard and inscription panel

### Technical data

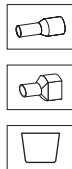
Crimping range 50 - 95 mm<sup>2</sup>

Length 335 mm

Weight 0.8 kg

Item	Part No.	
Crimping tool for cable end-sleeves 50 - 95 mm <sup>2</sup>	<b>K272</b>	
Accessories	Part No.	Page
Steel carrying case	SK4L	193

## K 28 Crimping tool for cable end-sleeves and twin cable end-sleeves 2 x 4 - 50 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals

### Characteristics

- One crimp profile per cross-section
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Handle with slip guard and inscription panel

### Technical data

Crimping range cable end-sleeves 10 - 50 mm<sup>2</sup>

Crimping range twin cable end-sleeves 2 x 4 - 2 x 16 mm<sup>2</sup>

Length 335 mm

Weight 0.8 kg

Item	Part No.	
Crimping tool for cable end-sleeves and twin cable end-sleeves 2 x 4 - 50 mm <sup>2</sup>	<b>K28</b>	
Accessories	Part No.	Page
Steel carrying case	SK4L	193





## Crimping

Mechanical crimping tools

### K 29 Crimping tool for cable end-sleeves 50 - 95 mm<sup>2</sup>



- ▶ Trapezoid crimping suitable for box terminals
- ▶ For large cross-sections to 95 mm<sup>2</sup>

#### Characteristics

- One crimp profile per cross-section
- With ratchet for consistently-controlled crimp results
- Lateral insertion (side crimping)
- Handle with slip guard and inscription panel

#### Technical data

Crimping range 50 - 95 mm<sup>2</sup>

Length 335 mm

Weight 0.8 kg

Item	Part No.	
Crimping tool for cable end-sleeves 50 - 95 mm <sup>2</sup>	<b>K29</b>	
Accessories	Part No.	Page
Steel carrying case	SK4L	193

### K 80 Crimping tool for insulated cable connections 0.1 - 1 mm<sup>2</sup>



- ▶ Crimping of conductor and insulation in one step
- ▶ Adjusting disc to compensate for the natural tool wear

#### Characteristics

- Accurate drive
- With ratchet for consistently-controlled crimp results
- Colour-coded cross-section assignment
- Handle with slip guard and inscription panel

#### Technical data

Crimping range red insulation sleeve 0.5 - 1.0 mm<sup>2</sup>

Crimping range yellow insulation sleeve 0.1 - 0.4 mm<sup>2</sup>

Length 195 mm

Weight 0.38 kg

Item	Part No.	
Crimping tool for insulated cable connections 0.1 - 1 mm <sup>2</sup>	<b>K80</b>	
Accessories	Part No.	Page
Steel carrying case	SK43L	193

## K 82 Crimping tool for insulated cable connections 0.5 - 6 mm<sup>2</sup>



- ▶ With additional locator to ensure a precise crimp connection
- ▶ 33 % less effort
- ▶ 3-Component handle grip
- ▶ Optimised material quality for a long service life
- ▶ Precise pre-tension setting maintains constant crimp performance

### Characteristics

- Less effort required due to new mechanical lever system
- 3C handle: YELLOW: hard core for force transmission, BLUE: soft ergonomic grip area, GREY: soft slip protection
- Easy handling thanks to reduced tool opening width, optimum ergonomics due to the position of the palms and fingers, which is gentle on the joints
- Crimping of conductor and insulation in one step

### Technical data

Crimping range red insulation sleeve	0.5 - 1.0 mm <sup>2</sup>
Crimping range blue insulation sleeve	1.5 - 2.5 mm <sup>2</sup>
Crimping range yellow insulation sleeve	4.0 - 6.0 mm <sup>2</sup>
Length	225 mm
Weight	0.53 kg

Item	Part No.	
Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	<b>K82A</b>	
Accessories	Part No.	Page
Steel carrying case	MK230L	194
Variants	Part No.	Page
Plastic assortment box with insl. cable connections and crimping tool	SK82S	192
Plastic assortment box with insl. cable connections and tools	SK82P	192



## Crimping

Mechanical crimping tools

### K 82 T Crimping tool for insulated cable connections 0.5 - 6 mm<sup>2</sup>



- ▶ With additional locator to ensure a precise crimp connection
- ▶ Also suitable for the processing of insulated connectors with vibration protection
- ▶ 33 % less effort
- ▶ 3-Component handle grip
- ▶ Optimised material quality for a long service life
- ▶ Precise pre-tension setting maintains constant crimp performance

#### Characteristics

- Less effort required due to new mechanical lever system
- 3C handle: YELLOW: hard core for force transmission, BLUE: soft ergonomic grip area, GREY: soft slip protection
- Easy handling thanks to reduced tool opening width, optimum ergonomics due to the position of the palms and fingers, which is gentle on the joints
- Crimping of conductor and insulation in one step
- Extremely high voltage protection due to special crimping of the cable insulation (diamond crimp)

#### Technical data

Crimping range red insulation sleeve	0.5 - 1.0 mm <sup>2</sup>
Crimping range blue insulation sleeve	1.5 - 2.5 mm <sup>2</sup>
Crimping range yellow insulation sleeve	4.0 - 6.0 mm <sup>2</sup>
Length	225 mm
Weight	0.53 kg

Item	Part No.	Page
Crimping tool for insulated cable connections 0.5 - 6 mm <sup>2</sup>	<b>K82T</b>	
Accessories	Part No.	Page
Steel carrying case	MK230L	194

## K 16 Crimping tool for insulated solderless terminals 10 + 16 mm<sup>2</sup>



- ▶ Oval crimping
- ▶ Crimping tool also for meter connections

### Characteristics

- With ratchet for consistently-controlled crimp results
- Colour-coded cross-section assignment

#### Technical data

Crimping range red insulation sleeve	10 mm <sup>2</sup>
Crimping range blue insulation sleeve	16 mm <sup>2</sup>
Length	305 mm
Weight	0.61 kg

Item	Part No.	
Crimping tool for insulated solderless terminals 10 + 16 mm <sup>2</sup>	<b>K16</b>	
Accessories	Part No.	Page
Steel carrying case	SK4L	193

## K 60 crimping tool for non-insulated tabs and receptacles 0.5 - 6 mm<sup>2</sup>



- ▶ Roll crimping
- ▶ To shorten screws M2.5 - M6

### Characteristics

- Crimping of conductor and insulation in two steps
- With wire stripping and cutting tool for cross-sections 0.75 – 6 mm<sup>2</sup>

### Suitable for

- Tabs with 2.8 / 4.8 and 6.3 mm tab width

#### Technical data

Crimping range	0.5 - 6 mm <sup>2</sup>
Length	225 mm
Weight	0.2 kg

Item	Part No.	
Crimping tool for non-insulated tabs and receptacles 0.5 - 6 mm <sup>2</sup>	<b>K60</b>	
Accessories	Part No.	Page
Steel carrying case	MK210L	194



## Crimping

Mechanical crimping tools

### K 57/2 Crimping tool for non-insulated tabs and receptacles 2.8 mm; 0.1 - 1 mm<sup>2</sup>



- ▶ Roll crimping
- ▶ Crimping of conductor and insulation in one step
- ▶ Spring-actuated tool opening
- ▶ Tool pre-tensioning adjustable

#### Characteristics

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Adjusting disc for compensating for the natural tool wear

#### Suitable for

- Tabs with 2.8 mm tab width

#### Technical data

Crimping range 0.1-1 mm<sup>2</sup>

Length 220 mm

Weight 0.55 kg

#### Item

Crimping tool for non-insulated tabs and receptacles 2.8 mm;  
0.1-1 mm<sup>2</sup>

#### Part No.

**K572**

### K 58/2 Crimping tool for non-insulated tabs and receptacles 4.8 mm; 0.5 - 2.5 mm<sup>2</sup>



- ▶ Roll crimping
- ▶ Crimping of conductor and insulation in one step
- ▶ Tool pre-tensioning adjustable

#### Characteristics

- Simple and quick due to spring-actuated tool opening
- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Adjusting disc for compensating for the natural tool wear

#### Suitable for

- Tabs with 4.8 mm tab width

#### Technical data

Crimping range 0.5 - 2.5 mm<sup>2</sup>

Length 220 mm

Weight 0.55 kg

#### Item

Crimping tool for non-insulated tabs and receptacles 4.8 mm;  
0.5 - 2.5 mm<sup>2</sup>

#### Part No.

**K582**

**K 59/2 Crimping tool for non-insulated tabs and receptacles 6.3 mm; 0.5 - 6 mm<sup>2</sup>**



- ▶ Roll crimping
- ▶ Crimping of conductor and insulation in one step
- ▶ Tool pre-tensioning adjustable

**Characteristics**

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Simple and quick due to spring-actuated tool opening
- Adjusting disc for compensating for the natural tool wear

**Suitable for**

- Tabs with 6.3 mm tab width

**Technical data**

Crimping range	0.5 - 6 mm <sup>2</sup>
Length	220 mm
Weight	0.51 kg

Item	Part No.
Crimping tool for non-insulated tabs and receptacles 6.3 mm; 0.5 - 6 mm <sup>2</sup>	<b>K592</b>



# Crimping

Mechanical crimping tools

## K 67 Crimping tool for non-insulated tabs and receptacles 2.8 mm; 0.1 - 1 mm<sup>2</sup>



- ▶ Roll crimping
- ▶ Crimping of conductor and insulation in one step
- ▶ Spring-actuated tool opening

### Characteristics

- With ratchet for consistently-controlled crimp results
- Parallel guided crimping jaws

### Suitable for

- Tabs with 2.8 mm tab width

Technical data		
Crimping range	0.1 - 1 mm <sup>2</sup>	
Length	210 mm	
Weight	0.5 kg	
Item	Part No.	
Crimping tool for non-insulated tabs and receptacles 2.8 mm; 0.1 - 1 mm <sup>2</sup>	<b>K67</b>	
Accessories	Part No.	Page
Steel carrying case	MK210L	194



**K 65 Crimping tool for non-insulated tabs and receptacles 4.8 mm; 0.5 - 2.5 mm<sup>2</sup>**



- ▶ Roll crimping
- ▶ Crimping of conductor and insulation in one step
- ▶ Spring-actuated tool opening

**Characteristics**

- With ratchet for consistently-controlled crimp results
- Parallel guided crimping jaws

**Suitable for**

- Tabs with 4.8 mm tab width

Technical data		
Crimping range	0.5 - 2.5 mm <sup>2</sup>	
Length	265 mm	
Weight	0.6 kg	
Item	Part No.	
Crimping tool for non-insulated tabs and receptacles 4.8 mm; 0.5 - 2.5 mm <sup>2</sup>	<b>K65</b>	
Accessories	Part No.	Page
Steel carrying case	MK210L	194



## Crimping

Mechanical crimping tools

### K 93 Crimping tool for connectors for solid conductors 1.5 - 4 mm<sup>2</sup>



- ▶ Hexagonal crimping
- ▶ Tool pre-tensioning adjustable

#### Characteristics

- Accurate drive
- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Handle with slip guard and inscription panel
- Adjusting disc for compensating for the natural tool wear

#### Technical data

Crimping range 1.5 - 4 mm<sup>2</sup>

Length 220 mm

Weight 0.56 kg

Item	Part No.
Crimping tool for connectors for solid conductors 1.5 - 4 mm <sup>2</sup>	<b>K93</b>

### K 94 Crimping tool for tubular cable lugs and connectors for solid conductors 6 - 10 mm<sup>2</sup>



- ▶ Hexagonal crimping
- ▶ Tool pre-tensioning adjustable

#### Characteristics

- Accurate drive
- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Handle with slip guard and inscription panel
- Adjusting disc for compensating for the natural tool wear

#### Technical data

Crimping range 6 - 10 mm<sup>2</sup>

Length 220 mm

Weight 0.56 kg

Item	Part No.
Crimping tool for tubular cable lugs and connectors for solid conductors 6 - 10 mm <sup>2</sup>	<b>K94</b>

**K 2 Crimping tool for tubular cable lugs and connectors, standard type 0.75 - 16 mm<sup>2</sup>**



- ▶ Indent crimping
- ▶ Ideal crimping tool with spring-actuated tool opening

**Characteristics**

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

Technical data		
Crimping range	0.75 - 16 mm <sup>2</sup>	
Length	325 mm	
Weight	0.6 kg	
Item	Part No.	
Crimping tool for tubular cable lugs and connectors, standard type 0.75 - 16 mm <sup>2</sup>	<b>K2</b>	
Accessories	Part No.	Page
Steel carrying case	SK4L	193

**K 02 Crimping tool for tubular cable lugs and connectors for solid conductors 0.75 - 16 mm<sup>2</sup>**



- ▶ Indent crimping
- ▶ Ideal crimping tool with spring-actuated tool opening
- ▶ For tubular cable lugs and connectors for solid conductors

**Characteristics**

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

Technical data		
Crimping range	0.75 - 16 mm <sup>2</sup>	
Length	325 mm	
Weight	0.6 kg	
Item	Part No.	
Crimping tool for tubular cable lugs and connectors for solid conductors 0.75 - 16 mm <sup>2</sup>	<b>K02</b>	
Accessories	Part No.	Page
Steel carrying case	SK4L	193



## Crimping

Mechanical crimping tools

### K 25 Crimping tool 0.5 - 16 mm<sup>2</sup>



#### ▶ Indent crimping

- ▶ Ideal crimping tool with spring-actuated tool opening
- ▶ For solderless terminals to DIN 46234, pin terminals to DIN 46230
- ▶ For nickel and stainless steel tubular cable lugs and connector to 6 mm<sup>2</sup>

#### Characteristics

- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool

#### Technical data

Crimping range	0.5 - 16 mm <sup>2</sup>
Length	325 mm
Weight	0.6 kg

Item	Part No.
Crimping tool 0.5 - 16 mm <sup>2</sup>	<b>K25</b>

Accessories	Part No.	Page
Steel carrying case	SK4L	193

### K 95 Crimping tool 16 - 95 mm<sup>2</sup>



#### ▶ Indent crimping

#### Characteristics

- For smaller copper conductors
- Optimised force transmission

#### Suitable for

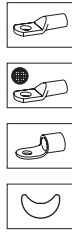
- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors
- Solderless terminals DIN 46234, pin terminals DIN 46230

#### Technical data

Crimping range	16 - 95 mm <sup>2</sup>
Length	630 mm
Weight	3.6 kg

Item	Part No.
Crimping tool 16 - 95 mm <sup>2</sup>	<b>K95</b>

## TK 95 Crimping tool 16 - 95 mm<sup>2</sup> for workbench mounting



- ▶ Indent crimping
- ▶ Ideal tool for workbench assembly

### Characteristics

- For smaller copper conductors
- Optimised force transmission

### Suitable for

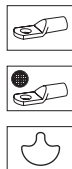
- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors
- Solderless terminals DIN 46234, pin terminals DIN 46230

### Technical data

Crimping range	16 - 95 mm <sup>2</sup>
Length	700 mm
Weight	3.9 kg

Item	Part No.
Crimping tool 16 - 95 mm <sup>2</sup> for workbench mounting	<b>TK95</b>

## K 5 / K 5 SP Crimping tools 6 - 50 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Version with ratchet for consistent checking of crimp results
- ▶ Low-maintenance mechanical drive

### Characteristics

- For smaller copper conductors
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the dies

### Suitable for

- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors

### Technical data

Crimping range	6 - 50 mm <sup>2</sup>
Length	600 mm
Weight	2.4 kg

Item	Part No.
Crimping tool 6 - 50 mm <sup>2</sup>	<b>K5</b>
Crimping tool with ratchet, 6 - 50 mm <sup>2</sup>	<b>K5SP</b>



## Crimping

Mechanical crimping tools

### K 6 / K 6 SP Crimping tools 50 - 120 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Version with ratchet for consistent checking of crimp results
- ▶ Low-maintenance mechanical drive

#### Characteristics

- For smaller copper conductors
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the dies
- Telescopic handles

#### Suitable for

- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors

#### Technical data

Crimping range 50 - 120 mm<sup>2</sup>

Length 970 mm

Weight 4.4 kg

Item	Part No.
Crimping tool 50 - 120 mm <sup>2</sup>	<b>K6</b>
Crimping tool with ratchet 50 - 120 mm <sup>2</sup>	<b>K6SP</b>

### K 07 / K 07 SP Crimping tools 185 - 400 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Extremely wide cross section range up to 400 mm<sup>2</sup>
- ▶ Version with ratchet for consistent checking of crimp results
- ▶ Low-maintenance mechanical drive

#### Characteristics

- Simple and safe: Exact cross-section assignment thanks to permanent marking on the dies
- Telescopic handles

#### Suitable for

- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors

#### Technical data

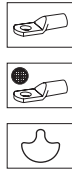
Crimping range 185 - 400 mm<sup>2</sup>

Length 975 mm

Weight 4.7 kg

Item	Part No.
Crimping tool 185 - 400 mm <sup>2</sup>	<b>K07</b>
Crimping tool with ratchet 185 - 400 mm <sup>2</sup>	<b>K07SP</b>

## K 7 / K 7 SP Crimping tools 120 - 240 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Large cross section range up to 240 mm<sup>2</sup>
- ▶ Version with ratchet for consistent checking of crimp results
- ▶ Low-maintenance mechanical drive

### Characteristics

- Simple and safe: Exact cross-section assignment thanks to permanent marking on the dies
- Telescopic handles

### Suitable for

- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors

#### Technical data

Crimping range	120 - 240 mm <sup>2</sup>
Length	975 mm
Weight	4.6 kg

Item	Part No.
Crimping tool 120 - 240 mm <sup>2</sup>	<b>K7</b>
Crimping tool 120 - 240 mm <sup>2</sup> with ratchet	<b>K7SP</b>

## K 8 / K 8 SP Crimping tools 35 - 95 mm<sup>2</sup>



- ▶ Indent crimping
- ▶ Version with ratchet for consistent checking of crimp results
- ▶ Low-maintenance mechanical drive

### Characteristics

- For smaller copper conductors
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the dies
- Telescopic handles

### Suitable for

- Tubular cable-lugs and connectors, standard type
- Tubular cable lugs and connectors for fine-stranded conductors

#### Technical data

Crimping range	35 - 95 mm <sup>2</sup>
Length	970 mm
Weight	4.4 kg

Item	Part No.
Crimping tool 35 - 95 mm <sup>2</sup>	<b>K8</b>
Crimping tool with ratchet 35 - 95 mm <sup>2</sup>	<b>K8SP</b>





## Crimping

Mechanical crimping tools

### K 04 Crimping tool for tubular cable lugs and connectors, standard type 10 - 25 mm<sup>2</sup>



- ▶ Hexagonal crimping
- ▶ Tool pre-tensioning adjustable
- ▶ Large cross section range up to 25 mm<sup>2</sup>

#### Characteristics

- Energy-efficient ergonomic drive
- With ratchet for consistently-controlled crimp results
- Simple and safe: Exact cross-section assignment thanks to permanent marking on the crimping tool
- Adjusting disc for compensating for the natural tool wear

#### Technical data

Crimping range 10 - 25 mm<sup>2</sup>

Length 260 mm

Weight 0.56 kg

Item	Part No.
Crimping tools for tubular cable lugs and connectors, standard type 10 - 25 mm <sup>2</sup>	<b>K04</b>

### K 05 BC Syncro Crimping tools

#### for tubular cable lugs and connectors blue connection® 6 - 50 mm<sup>2</sup>



- ▶ Accurate assignment of crimping tool/crimping die through colour-coding system
- ▶ Hexagonal crimping
- ▶ Synchronised die selection when in the open position
- ▶ Cross-section display on marked adjusting wheel
- ▶ For compacted conductors to DIN EN 60228

#### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

#### Technical data

Crimping range 6 - 50 mm<sup>2</sup>

Length 390 mm

Weight 1.1 kg

Item	Part No.
Syncro Crimping tool for tubular cable lugs and connectors, blue connection® 6 - 50 mm <sup>2</sup>	<b>K05BC</b>

Variants	Part No.	Page
L-BOXX from plastic with blue connection® - equipment	LBOXX65BCB	202

## K 05 / K 05 SP Syncro Crimping tools for tubular cable lugs and connectors, standard type 6 - 50 mm<sup>2</sup>



- ▶ Synchronised die selection when in the open position
- ▶ Cross-section display on marked adjusting wheel
- ▶ Version with ratchet for consistent crimp results

### Characteristics

- Hexagonal crimping
- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes
- Ergonomic 2-component handle with two-sided slip guard
- Smooth-running, durable and effortless tool mechanism

Technical data		
Crimping range	6 - 50 mm <sup>2</sup>	
Length	390 mm	
Weight	1.1 kg	
Item	Part No.	
Syncro Crimping tool for tubular cable lugs and connectors, standard type 6 - 50 mm <sup>2</sup>	<b>K05</b>	
Syncro Crimping tool with ratchet for tubular cable lugs and connectors, standard type 6 - 50 mm <sup>2</sup>	<b>K05SP</b>	
Variants	Part No.	Page
Steel assortment box with tubular cable lugs 6 - 50 mm <sup>2</sup> and crimping tool K05	SK65B	189
L-BOXX from plastic with standard equipment for electrical installations	LBOXX65B	200

## K 05 D / K 05 D SP Syncro Crimping tools for DIN compression cable lugs and connectors 6 - 50 mm<sup>2</sup>



- ▶ Synchronised die selection when in the open position
- ▶ Cross-section display on marked adjusting wheel
- ▶ Version with ratchet for consistent crimp results

### Characteristics

- Hexagonal crimping
- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes
- Ergonomic 2-component handle with two-sided slip guard
- Smooth-running, durable and effortless tool mechanism

Technical data		
Crimping range	6 - 50 mm <sup>2</sup>	
Length	390 mm	
Weight	1.1 kg	
Item	Part No.	
Syncro Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 50 mm <sup>2</sup>	<b>K05D</b>	
Syncro Crimping tool with ratchet for compression cable lugs and connectors (DIN 46235 / DIN 46267 part 1) 6 - 50 mm <sup>2</sup>	<b>K05DSP</b>	
Variants	Part No.	Page
Steel assortment box with DIN compression cable lugs and crimping tool	SK50B	190
L-BOXX from plastic with standard equipment for electrical installations	LBOXX50B	201



## Crimping

Mechanical crimping tools

### K 06 BC Syncro Crimping tools for tubular cable lugs and connectors blue connection® 6 - 120 mm<sup>2</sup>



- ▶ Accurate assignment of crimping tool/crimping die through colour-coding system
- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Synchronised die selection when in the open position
- ▶ Cross-section display on marked adjusting wheel
- ▶ For compacted conductors to DIN EN 60228

#### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

Technical data	
Crimping range	6 - 120 mm <sup>2</sup>
Length	600 - 750 mm
Weight	2.6 kg
Item	Part No.
Syncro Crimping tool for tubular cable lugs and connectors, blue connection® 10 - 120 mm <sup>2</sup>	<b>K06BC</b>

### K 06 Syncro Crimping tools for tubular cable lugs and connectors, standard type 6 - 120 mm<sup>2</sup>



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

#### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

Technical data	
Crimping range	6 - 120 mm <sup>2</sup>
Length	600 - 750 mm
Weight	2.6 kg
Item	Part No.
Syncro Crimping tools with ratchet for tubular cable lugs and connectors, standard type 10 - 120 mm <sup>2</sup>	<b>K06</b>

**K 06 D Syncro Crimping tools for DIN compr. cable lugs and connectors 6 - 120 mm<sup>2</sup>**



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

**Characteristics**

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

**Technical data**

Crimping range 6 - 120 mm<sup>2</sup>

Length 600 - 750 mm

Weight 2.6 kg

Item	Part No.
Syncro Crimping tool for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 6 - 120 mm <sup>2</sup>	<b>K06D</b>

**K 09 BC Syncro Crimping tools for tubular cable lugs and connectors blue connection® 25 - 150 mm<sup>2</sup>**



- ▶ Accurate assignment of crimping tool/crimping die through colour-coding system
- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Synchronised die selection when in the open position
- ▶ Cross-section display on marked adjusting wheel
- ▶ For compacted conductors to DIN EN 60228

**Characteristics**

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

**Technical data**

Crimping range 25 - 150 mm<sup>2</sup>

Length 600 - 750 mm

Weight 2.9 kg

Item	Part No.
Syncro Crimping tool for tubular cable lugs and connectors, blue connection® 25 - 150 mm <sup>2</sup>	<b>K09BC</b>



## Crimping

Mechanical crimping tools

### K 09 Syncro Crimping tools for tubular cable lugs and connectors, standard type 25 - 150 mm<sup>2</sup>



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

#### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

#### Technical data

Crimping range 25 - 150 mm<sup>2</sup>

Length 600 - 750 mm

Weight 2.9 kg

Item	Part No.
Syncro Crimping tools for tubular cable lugs and connectors, standard type 25 - 150 mm <sup>2</sup>	<b>K09</b>

### K 09 D Syncro Crimping tools for DIN compression cable lugs and connectors, 25 - 150 mm<sup>2</sup>



- ▶ Unique with extra large crimping range
- ▶ Hexagonal crimping
- ▶ Faster, safer and synchronous cross-section adjustment
- ▶ Ergonomic design
- ▶ Extremely light and rigid

#### Characteristics

- Precisely synchronised head plate position for optimum and consistent crimp results
- Modern, rigid and lightweight elliptical handle tubes

#### Technical data

Crimping range 25 - 150 mm<sup>2</sup>

Length 600 - 750 mm

Weight 2.9 kg

Item	Part No.
Syncro Crimping tool with ratchet for compression cable lugs and connectors (DIN 46235 / DIN 46267, Part 1) 25 - 150 mm <sup>2</sup>	<b>K09DSP</b>

## K 511 / K 512 Crimping tools for gas-tight connections



- ▶ Parallel guided crimping jaws
- ▶ Suitable for gas-tight crimps in environments extremely harmful to crimps (e.g. ammonia gas)

### Characteristics

- Optimised force transmission
- With ratchet for consistently-controlled crimp results
- Handle with slip guard and inscription panel

### Suitable for

- Non-insulated tubular cable lugs, ring and fork type
- Parallel and butt connectors

#### Technical data

Length 270 mm

Weight 0.7 kg

Item	Crimping range mm <sup>2</sup>	Part No.
Mechanical crimping tool 1 - 4 mm <sup>2</sup>	1-4	<b>K511</b>
Mechanical crimping tool 6 + 10 mm <sup>2</sup>	6+10	<b>K512</b>

## DN-K 74/2 Crimping tool for BNC connectors and coax cable



- ▶ Hexagonal crimping
- ▶ Tool pre-tensioning adjustable

### Characteristics

- With ratchet for consistently-controlled crimp results
- Adjusting disc for compensating for the natural tool wear

### Suitable for

- Coax cable RG 58, RG 59, RG 62 and RG 71

#### Technical data

Length 220 mm

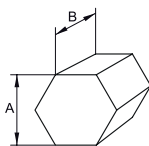
Weight 0.560 kg

Crimping dimension 1 A: 6.48 mm, B: 10 mm

Crimping dimension 2 A: 5.4 mm, B: 10 mm

Crimping dimension 3 A: 1.72 mm, B: 2.3 mm

Item	Part No.
Mechanical crimping tool for BNC connector, coax cable RG 58, RG 59, RG 62 and RG 71	<b>DNK742</b>





## Crimping

Mechanical crimping tools

### KP 1 / KP 1 L basic tool from the Klauke Pro series
























- ▶ Compatible with all crimping heads of the Klauke Pro range
- ▶ Easy change of crimping head without tools

#### Characteristics

- Standardised mounting of crimping heads
- With ratchet for consistently-controlled crimp results

Item	Weight kg	Part No.	
Basic tool from the Klauke Pro range, length 151 mm	0.2	<b>KP1</b>	
Basic tool from the Klauke Pro range, length 207 mm	0.3	<b>KP1L</b>	
Accessories		Part No.	Page
Plastic case		MKKP1	196

	Suitable for	Crimping range mm <sup>2</sup>	Crimp profile	Part No.
<b>Crimping heads for cable end-sleeves</b>				
	Cable end-sleeves, square crimping	0,08 - 10		<b>KP303</b>
	Cable end-sleeves, square crimping	2,5 - 16		<b>KP304</b>
	Cable end-sleeves, round crimping for narrow chamber sizes	0,14 - 2,5		<b>KP350</b>
	Cable end-sleeves, round crimping for narrow chamber sizes	1,5 - 6		<b>KP351</b>
	Cable end-sleeves, round crimping for narrow chamber sizes	10 - 16		<b>KP352</b>
<b>Crimping heads for insulated cable connections</b>				
	Insulated cable connections (yellow and red)	0,1 - 1		<b>KP80</b>
	Insulated cable connections (red and blue)	0,5 - 2,5		<b>KP81</b>
	Insulated cable connections (red, yellow, blue)	0,5 - 6		<b>KP82</b>
	Insulated cable connections (yellow)	4 - 6		<b>KP83</b>
<b>Crimping heads for tubular cable lugs and solderless terminals</b>				
	Tubular cable lugs and solderless terminals	0,5 - 6		<b>KP232</b>
	Tubular cable lugs and solderless terminals	4 - 10		<b>KP242</b>
<b>Crimping heads for photovoltaic</b>				
	Connector for photovoltaics 3 mm dia.	2,5 - 4		<b>KP90MC31</b>
<b>Crimping heads for receptacles</b>				
	Part No. 3720, receptacles 6.3 x 0.8 mm with lateral conductor connector	0,5 - 1		<b>KP631</b>
	Part No. 3725, receptacles 6.3 x 0.8 mm with lateral conductor connector	0,5 - 1,5		<b>KP64</b>
	Part No. 3735, receptacles 6.3 x 0.8 mm with lateral conductor connector	1,5 - 2,5		<b>KP632</b>
	For receptacles 2.8 mm tab width	0,1 - 1		<b>KP67</b>
	For receptacles 4.8 mm tab width	0,5 - 2,5		<b>KP65</b>
	For receptacles 6.3 mm tab width	0,5 - 2,5		<b>KP68</b>





## Crimping

Mechanical crimping tools

### SKP 1 Crimping head assortment from the Klauke Pro series



- ▶ Easy change of crimping head without tools
- ▶ Crimping of conductor and insulation in one step
- ▶ Spring-actuated tool opening

#### Characteristics

- Parallel guided crimping heads
- With ratchet for consistently-controlled crimp results

Technical data		
Dimension	250 x 115 x 40 mm	
Weight	0.8 kg	
Item	Part No.	
Crimping head set of the Klauke Pro range	<b>SKP1</b>	
Scope of supply	Part No.	Page
Basic tool from the Klauke Pro range, length 151 mm	KP1	240
Crimping head for insulated cable connections 0.5 - 2.5 mm <sup>2</sup> (red, blue)	KP81	
Crimping head for cable end-sleeves, square crimping, 0.08 - 10 mm <sup>2</sup>	KP303	
Crimping head for non-insulated tubular cable lugs and solderless terminals 0.5 - 6 mm <sup>2</sup>	KP232	

### SKP 6 Crimping head assortment from the Klauke Pro series



- ▶ Easy change of crimping head without tools
- ▶ Crimping of conductor and insulation in one step
- ▶ Parallel guided crimping heads
- ▶ Spring-actuated tool opening

#### Characteristics

- Roll crimping
- For crimping of non-insulated receptacles with lateral conductor connector
- With ratchet for consistently-controlled crimp results

Technical data		
Dimension	250 x 115 x 40 mm	
Weight	0.8 kg	
Item	Part No.	
Crimping head set of the Klauke Pro range	<b>SKP6</b>	
Scope of supply	Part No.	Page
Basic tool from the Klauke Pro range, length 151 mm	KP1	240
Crimping head for receptacles 6.3 x 0.8 mm with lateral conductor connector, 0.5 - 1 mm <sup>2</sup> , for Item 3720	KP631	
Crimping head for receptacles 6.3 x 0.8 mm with lateral conductor connector, 1.5 - 2.5 mm <sup>2</sup> , for Item 3735	KP632	
Crimping head for receptacles 6.3 x 0.8 mm with lateral conductor connector, 0.5 - 1.5 mm <sup>2</sup> , for Item 3725	KP64	

## K 507 Crimping tool with interchangeable dies



- ▶ Fast change of crimping die, no tools required, without readjustment by special fixing system
- ▶ Additional crimping dies integrated in the handle

### Characteristics

- With ratchet for consistently-controlled crimp results
- Adjusting disc for compensating for the natural tool wear

### Technical data

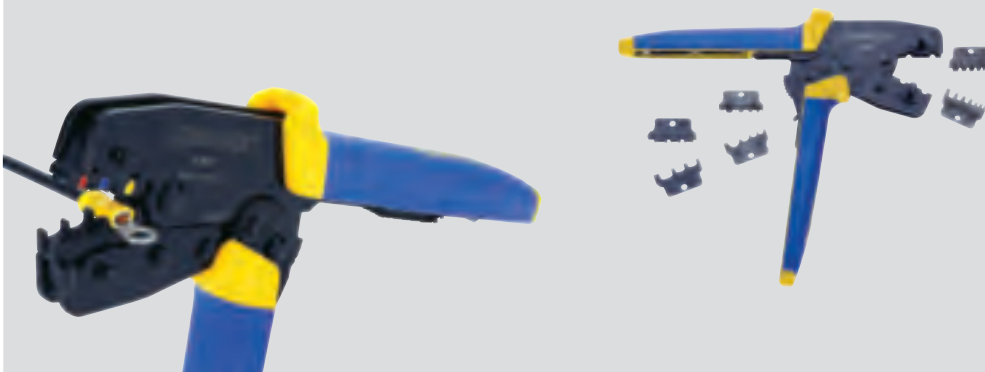
Length	220 mm
Weight	0.635 kg

Item	Part No.	
Crimping tool with interchangeable dies	<b>K507</b>	
Scope of supply	Part No.	Page
Crimping die for insulated connectors, 0.5 - 6 mm <sup>2</sup>	IS5071	
Crimping dies AE 50, 0.14 - 10 mm <sup>2</sup>	AE501	326
Crimping die for insulated connectors 0.5 - 6 mm <sup>2</sup>	Q5071	
Variants	Art.-Nr.	Seite
Steel assortment box with insl. cable connections and crimping tool	MK230B507	191
L-BOXX from plastic with standard equipment for electrical installations	LBOXX230B	203

## FROM PRACTICE FOR PRACTICE!

The 3 in 1 crimping tool K507 - The K507 has a lot to offer!

3 integrated crimping dies for processing insulated cable lugs, cable end-sleeves and solderless cable lugs. Magazines in the handles are designed to stow two crimping dies, so they are to hand at all times.





## Crimping

Mechanical crimping tools

### K 50 Crimping tool for interchangeable dies



- ▶ Parallel guided crimping jaws
- ▶ Fast change of crimping die without readjustment by special fixing system
- ▶ Exact positioning of the crimping dies due to die locating pins



















#### Characteristics

- Optimised force transmission
- With ratchet for consistently-controlled crimp results
- Handle with slip guard and inscription panel

Technical data		
Length	220 mm	
Weight	0.6 kg	
Item	Part No.	
Crimping tool for interchangeable dies 0.1 - 50 mm <sup>2</sup>	<b>K50</b>	
Accessories	Part No.	Page
Steel carrying case	MK55	194



## Available dies for Series 50 for K 50

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type		0.75 - 10		326
Tubular cable lugs and connectors, Cu, standard type		16 - 25		326
Tubular cable lugs and connectors for solid conductors, Cu		1.5 - 10		326
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1)		6 - 25		326
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		0.5 - 10		326
<b>Cable end-sleeves</b>				
Cable end-sleeves		0.14 - 50		326
<b>Cable connections, insulated and non-insulated</b>				
Non insulated receptacles		0.25 - 6		327
for pin and shielded receptacles, BNC connectors for coax cables RG 58, 59, 60 and 71				327
Turned pin connectors, pin receptacles		0.1 - 4		327
Insulated cable connections, double crimping		0.1 - 6		327
Insulated cable connections, single crimping		0.5 - 16		327



## Crimping

Mechanical crimping tools

### K 35/4 Crimping tool for interchangeable dies 6 - 150 mm<sup>2</sup>



- ▶ Very comfortable: Tool-less crimping die change
- ▶ Optimised for cable glands and control cabinet construction
- ▶ Energy-efficient and low-maintenance mechanical drive

#### Characteristics

- Narrow crimping
- Less effort due to extendible telescopic handle
- Flexible use: Head rotates 360°
- Fast, change of crimping die without readjustment by special fixing system

#### Technical data

Length	Stepless 420-590 mm
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

































Weight	1.9 kg
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Item	Part No.
Crimping tool for interchangeable dies 6 - 150 mm <sup>2</sup>	<b>K354</b>

Accessories	Part No.	Page
Steel carrying case	SK65L	195



## Available dies for Series 4 for K 35/4

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 150		329
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 150		328
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 70		328
Tubular cable lugs and connectors for fine stranded conductors		10 - 35		329
Tubular cable lugs and connectors for solid conductors		1.5 - 16		329
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		0.5 - 16		329
Nickel tubular cable lugs and connectors		0.5 - 16		329
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 120		330
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		6 - 35		330
Insulated solderless terminals and connectors		10 - 16		330
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10sm - 150se / 120sm		331
<b>Aluminium compression cable lugs and connectors acc. to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 70		331
Compression joints for full-tension connections of Aldrey-conductors DIN EN 50182		25 - 50		331
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA4, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD4		10 - 70		331
<b>Clamps</b>				
Clamps, C-type		4 - 35		331
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 50		332
Twin cable end-sleeves		2 x 4 - 2 x 16		332
Twin cable end-sleeves for fine stranded conductors		2 x 4 - 2 x 16		332
Cable end-sleeves for fine stranded conductors		10 - 50		332



## Crimping

Mechanical crimping tools

### K 18 Crimping tool for interchangeable dies to DIN 48083, Part 1, 6 - 240 mm<sup>2</sup>



- ▶ Change of crimping dies without tools
- ▶ Optimised for cable glands and control cabinet construction
- ▶ Energy-efficient and low-maintenance mechanical drive

#### Characteristics

- Narrow crimping
- Less effort due to extendible telescopic handle
- Flexible use: Head rotates 360°
- Fast, change of crimping die without readjustment by special fixing system

#### Technical data

Length	Stepless 580-830 mm
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Weight	2.5 kg
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





































Item	Part No.
Crimping tool for interchangeable dies acc. to DIN 48083, sheet 1, 6 - 240 mm <sup>2</sup>	<b>K18</b>

Accessories	Part No.	Page
Steel carrying case	MK18	195

**K18**  
SERIE

## Available dies for Series 18 for K 18

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 240		337
Connectors, standard type		6 - 95		337
Insulated tubular cable lugs and connectors, standard type, insulated pin terminals		10 - 95		337
Tubular cable lugs and connectors for fine stranded conductors		10 - 50		337
Tubular cable lugs and connectors for solid conductors		1.5 - 16		338
<b>Copper compression cable lugs and connectors to DIN</b>				
Compression cable lugs (DIN 46235)		6 - 185		338
Connectors DIN 46267		6 - 70		338
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		338
Insulated solderless terminals and connectors		10 - 50		338
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 240 sm		339
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 185		339
Aluminium connectors		10 - 70		339
Compression joints for full-tension connections of Aldrey-conductors DIN EN 50182		25 - 95		339
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D		10 - 185		339
<b>Clamps</b>				
Clamps, C-type		4 - 50		339
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 95		340
Twin cable end-sleeves		2 x 4 - 2 x 16		340
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 95		340
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		340
<b>Cutting die</b>				
for cutting area		18 mm dia.		412





## Crimping

Mechanical crimping tools

### K 22 Crimping tool for interchangeable dies 6 - 300 mm<sup>2</sup>



- ▶ Change of crimping dies without tools
- ▶ Optimised for cable glands and control cabinet construction
- ▶ Energy-efficient and low-maintenance mechanical drive

#### Characteristics

- Narrow crimping
- Large cross section by half shell dies
- Less effort due to extendible telescopic handle
- Flip top style head rotates 360°
- Fast, change of crimping die without readjustment by special fixing system

#### Technical data

Length Stepless 560-860 mm







































Weight 2.5 kg

Item	Part No.	
Crimping tool for interchangeable dies 6 - 300 mm <sup>2</sup>	<b>K22</b>	
Accessories	Part No.	Page
Steel carrying case	MK22	195



## Available dies for Series 22 for K 22

Refer to the limitations when crimping connectors in the technical appendix.







Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 300		341
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		341
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 150		341
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		342
Tubular cable lugs and connectors for solid conductors		1.5 - 16		342
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		342
Nickel tubular cable lugs and connectors		10 - 50		329
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		343
Double compression cable lugs		2 x 50 - 2 x 70		343
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		343
Insulated solderless terminals and connectors		10 - 70		343
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 240 sm		344
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 300		344
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		344
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25 / 4 - 120 / 20		345
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		345
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 - 300		331
<b>Clamps</b>				
Clamps, C-type		4 - 70		345
Clamps, H-type		70		345

see next page



## Crimping

### Mechanical crimping tools

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Cable end-sleeves</b>				
Twin cable end-sleeves		2 x 4 - 2 x 16		346
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 240		346
Twin cable end-sleeves for fine stranded conductors		2 x 4 - 2 x 16		346



# SO FAST IN SERIES PRODUCTION - THE KLAUKE MICRO

The Klauke Micro is as convenient and quick as a mechanical tool, and just as powerful and easy to handle as a battery-powered hydraulic tool. Compact and portable in one device! Thanks to the innovative PowerSense technology. This tool simplifies your work like never before.



3

**Klauke®** *micro*

## ► Manual pre-clamping - motorized crimping

- Flexible to use with interchangeable crimping dies
- Broad application range of up to 50 mm<sup>2</sup>
- With LED illumination of the crimp position and the work area
- Low weight (< 1 kg)
- Intuitive operation thanks to PowerSense function
- Electronic control with ratchet function and motor stall protection
- Automatic retraction
- Long service life with servicing intervals of 35,000 cycles
- 3 year warranty on tool registration

**Link to tool registration:**  
[www.klauke.com/en/werkzeugregistrierung/  
login-tool-registration/](http://www.klauke.com/en/werkzeugregistrierung/login-tool-registration/)





## Crimping

Electro mechanical crimping tool

### EK 50 ML Electromechanical crimping tool 0.14 - 50 mm<sup>2</sup>



**K50**  
SERIE

- ▶ The Klauke micro with intuitive PowerSense function combines the benefits of manual crimping tools with the convenience of battery powered hydraulic crimping tools
- ▶ Excellent crimps with minimum effort

#### Characteristics

- Simple and safe: One-button operating concept for controlling all tool functions
- Electronic control with locking function monitors full closing of the dies
- Simple and safe: Automatic retraction when operation is complete
- Manual retract as required
- Motor stall protection
- Ergonomic 2C housing in the Klauke "In-line Design"
- Tool fixing point for use with balancer aid or lanyard
- Very low weight and high speed for maximum efficiency
- Powerful drive technology for effortless operations
- Powerful 10.8 V Li-Ion battery with charge status display
- LED for work area illumination
- Maintenance display via LED





















#### Suitable for

- 50-series interchangeable dies

Technical data		
Crimping force	max. 15 kN	
Crimping range	0.14 - 50 mm <sup>2</sup>	
Number of crimps	approx. 300 at 10 mm <sup>2</sup> Cu DIN 46234 / per battery charge	
Battery voltage	10.8 V	
Battery capacity	1.5 Ah, Li-Ion	
Charging time	approx. 40 min.	
Weight incl. battery	0.96 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No.	
Electromechanical crimping tool 0.14 - 50 mm <sup>2</sup>	<b>EK50ML</b>	
Scope of supply	Part No.	Page
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	RAML1	493
Charger for 10.8 V Li-Ion batteries, 230V	LGML1	495
Crimping dies IS 50, double crimping, 0.5 - 6 mm <sup>2</sup>	IS501	
Plastic case 450 x 370 x 105 mm	KKEK50ML	
Variants	Part No.	Page
Electromechanical crimping tool 0.14 - 50 mm <sup>2</sup> with RAML1 battery, no crimping die, case, charge	EK50ML-L	
L-BOXX with electro-mechanical crimping tool EK 50 ML 0.14 to 50 mm <sup>2</sup> and extensive additional equipment	LBOXXEK50ML	



## Available dies of series 50 for EK 50 ML

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type		0.75 - 10		326
Tubular cable lugs and connectors, standard type		6 - 25		326
Tubular cable lugs and connectors for solid conductors		1.5 - 10		326
<b>Copper compression cable lugs and connectors acc. to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1)		6 - 25		326
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors (DIN 46341) and pin terminals (DIN 46230)		0.5 - 10		326
<b>Cable end-sleeves</b>				
Cable end-sleeves		0.14 - 50		326
<b>Cable connections, insulated and non-insulated</b>				
Insulated cable connections, double crimping		0.1 - 6		327
Insulated cable connections, single crimping		0.5 - 16		327
Non-insulated receptacles		0.25 - 6		327
BNC connectors for coax cables RG 58, 59, 60 and 71				327
Turned pin connectors and receptacles		0.1 - 4		327

## THINK OF YOUR HEALTH!

Frequent manual crimping eventually leads to over-strain in the wrist and lower arm. To crimp with the EK 50 ML, you only need around 10% of the manual force required by a mechanical hand tool. Motorised crimping with the EK50ML is an investment that pays off!









# THE LITTLE CRIMPING EXPERT - BATTERY-POWERED HYDRAULIC CRIMPING TOOL (10.8 V)

We have made performance easy: The Klauke mini is lightweight yet powerful. The Klauke mini's practical dimensions make it the ideal solution for confined areas, in panel building for instance. A convenient expert for crimp to 150 mm<sup>2</sup> nominal cross-section.

## **Klauke**<sup>®</sup> *mini*

### ▶ Pure performance without frills

The Klauke mini concentrates on its core task: reliable crimping. Even without pressure sensor and display, the little expert does its job well - no fuss or quibble.

### ▶ Usage time at a glance

Read the charge level at any time from the powerful 10.8 V battery.

### ▶ All-round crimping

How can confined areas be easily reached? With crimping heads rotating through 360°.







## Crimping

Battery powered hydraulic crimping tools

### EK 15/50 ML Battery powered hydraulic crimping tool 0.14 - 50 mm<sup>2</sup>



- ▶ Long service life thanks to robust head
- ▶ Optimum crimping due to parallel guided crimping dies
- ▶ Effortless operations thanks to low weight
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

#### Characteristics

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft lining
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

#### Suitable for

- 50-series interchangeable dies





















#### Technical data

Crimping force	13 kN
Stroke / opening width	9 mm
Crimping range	0.14 - 50 mm <sup>2</sup>
Crimping cycle	approx. 2 s
Number of crimps	approx. 230 at 10 mm <sup>2</sup> Cu
Battery voltage	10.8 V
Battery capacity	1.5 Ah, Li-Ion
Charging time	approx. 40 min.
Weight incl. battery	1.5 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.	
Battery powered hydraulic crimping tool 0.14 - 50 mm <sup>2</sup>	<b>EK1550ML</b>	
Scope of supply	Part No.	Page
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	RAML1	493
Charger for 10.8 V Li-Ion batteries, 230V	LGML1	495
Plastic case	KKML	



## Available dies for Series 50 for EK 15/50 ML

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Copper tubular cable lugs and connectors, standard type		0.75 - 10		326
Copper tubular cable lugs and connectors, standard type		16 - 25		326
Copper tubular cable lugs and connectors for solid conductors		1.5 - 10		326
<b>Copper compression cable lugs and connectors acc. to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1)		6 - 25		326
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Solderless terminals (DIN 46234) and pin terminals (DIN 46230) Cu, connectors (DIN 46341)		0.5 - 10		326
<b>Cable end-sleeves</b>				
Cable end-sleeves		0.14 - 50		326
<b>Cable connections, insulated and non-insulated</b>				
Insulated cable connections, single crimping		0.5 - 16		327
Insulated cable connections, double crimping		0.5 - 16		327
Non-insulated receptacles		0.25 - 6		327
For pin and shielded receptacles, BNC connectors for coax-cables RG 58, 59, 60 and 71				327
Turned pin connectors, pin receptacles		0.1 - 4		327



## Crimping

Battery powered hydraulic crimping tools

### EK 35/4 ML Battery powered hydraulic crimping tool 6 - 150 mm<sup>2</sup>



- ▶ Large cross section range up to 150 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

#### Characteristics







































- Closed head, flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

#### Suitable for

- 4-series interchangeable dies, narrow crimping

Technical data		
Crimping force	35 kN	
Stroke / opening width	9 mm	
Crimping range	6 - 150 mm <sup>2</sup>	
Crimping cycle	3 s to 4 s (depending on crimp cross-section)	
Number of crimps	approx. 145 at 120 mm <sup>2</sup> Cu	
Battery voltage	10.8 V	
Battery capacity	1.5 Ah, Li-Ion	
Charging time	approx. 40 min.	
Weight incl. battery	1.6 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No.	
Battery powered hydraulic crimping tool 6 - 150 mm <sup>2</sup>	<b>EK354ML</b>	
Scope of supply	Part No.	Page
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	RAML1	493
Charger for 10.8 V Li-Ion batteries, 230 V	LGML1	495
Plastic case	KKML	
Variants	Part No.	Page
EK 35/4 ML with crimping die set HR 4 from 6 - 150 mm <sup>2</sup>	EK354MLSETHR	
EK 35/4 ML with crimping die set HD 4 from 6 - 120 mm <sup>2</sup>	EK354MLSETHD	

## Available dies for Series 4 for EK 35/4 ML

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 150		329
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 150		328
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 70		328
Tubular cable lugs and connectors for fine stranded conductors		10 - 35		329
Tubular cable lugs and compression joints for solid conductors		1.5 - 16		329
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		0.5 - 16		329
Nickel tubular cable lugs and connectors		0.5 - 16		329
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 120		330
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors (DIN 46341) and pin terminals (DIN 46230)		6 - 35		330
Insulated solderless terminals and connectors		10 - 16		330
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 150 se /120 sm		331
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 70		331
Compression joints for full-tension connections of Aldrey-conductors DIN EN 50182		25 - 50		331
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminium/copper compression cable lugs and connectors		10 - 70		331
<b>Clamps</b>				
Clamps, C-type		4 - 35		331
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 50		332
Twin cable end-sleeves		2 x 4 - 2 x 16		332
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 50		332
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		332

# THE NEW STANDARD - KLAUKE NEXT GENERATION CRIMPING TOOLS

To guarantee the quality, you can check the tool data from the display or via i-press® app at any time. You can easily make this information available to your customers as project documentation at the touch of a button. The balanced design ensures effortless and continuously high-quality operations up to the end of each working day.

**NEXT  
GENERATION**

### In brief

- ▶ Freely-selectable battery platform: with Bosch or Makita
- ▶ Proof of quality can be created via Bluetooth
- ▶ Ensure tool availability: Read the tool properties from the display or via the app
- ▶ Effortless operations thanks to modern, ergonomic design

Interested in Klauke Next Generation tools? Then take a look at our Multi universal tool on [Page 472 >>](#)



**► Making work easier**

Klauke tools guarantee effortless operations: The “mini” impresses through its low weight and the pistol shape thanks to the balanced centre of gravity

- Our compact “mini” is just perfect for confined areas
- The 2-stage hydraulic system ensures fast operations with fast feed and power stroke (pistol shape)
- Especially impressive and reliable: The one-button control concept for all tools with automatic retraction

- The ARS function (Automatic Retraction Stop) stops the automatic retraction when a crimp is complete through a fully-automated process

**► Guarantees quality**

- All relevant tool data immediately in view on the integrated display
- In case of a fault, you are warned by a visual and audible signal from the tool

- Provide written proof of the quality of your work with i-press® - now simply and conveniently connect the tool to the computer via Bluetooth.



**► i-press® software**


Show your customers how well you work. Klauke Next Generation records your operations, and these can then be transmitted by Bluetooth. The free i-press® software uses these data to create for you, if you want, a project report - the proof of quality for your correct operations. You have control over your quality.

**► i-press® app**

Use the i-press® app to check and control your tool data on the go. Individual tool settings, such as the number of warning tones for an incorrect crimp or the double-click function for increased user safety, help make your day-to-day work simpler and more reliable - just as you need it.



**The i-press® app can be found at:**  
[www.klauke.com/en/service/downloads/connectivity-software/](http://www.klauke.com/en/service/downloads/connectivity-software/)







## Crimping

Battery powered hydraulic crimping tools

# THE I-PRESS® APP AT A GLANCE

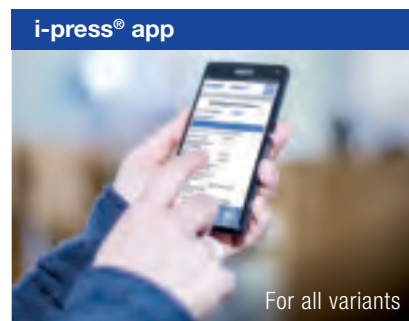
Compact and available at all times: Your smart-phone becomes the tool's nerve centre, simplifying your daily work routine – free-of-charge, guaranteed.



Made easy: Your Next Generation tool connects to the i-press® app via Bluetooth - you can now use the comprehensive range of functions.

Read the important tool information from the display and start new projects. All the information about your crimping operations is saved from now on. When the project is complete, an overview can be printed out, saved or submitted in the form of a report.

**TIP: When you register as a user, subscribe to the Klauke Newsletter – that way, you will always be up-to-date.**



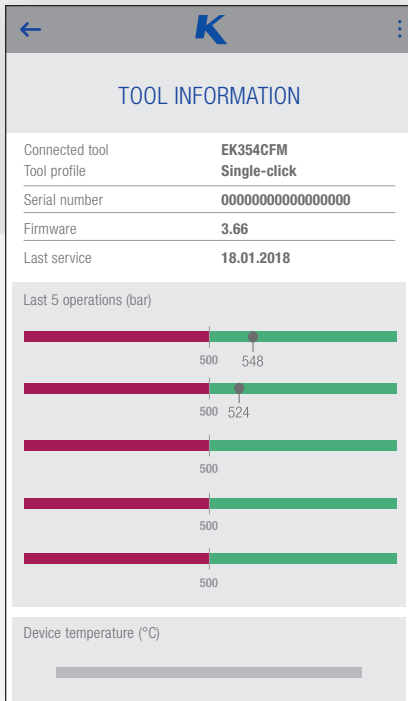
i-press® app

Keep an overview of all your tools even while on the go. and personalise your tool settings via the app.

For all variants

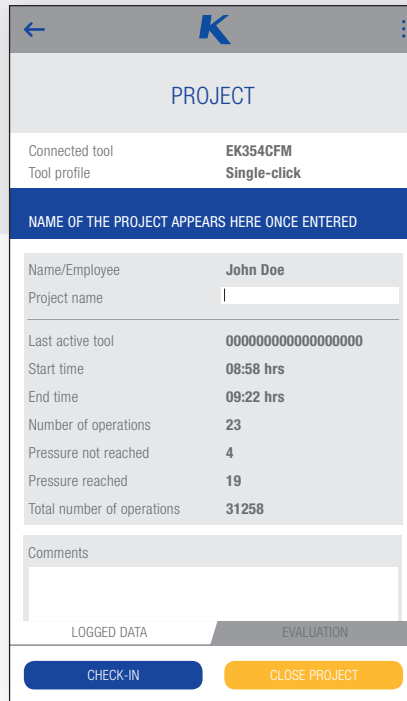
## EASY TO OPERATE

Menu guidance function is easy and quick to understand thanks to the cascade function. You can start immediately, personalise your tool and use all the other functions.



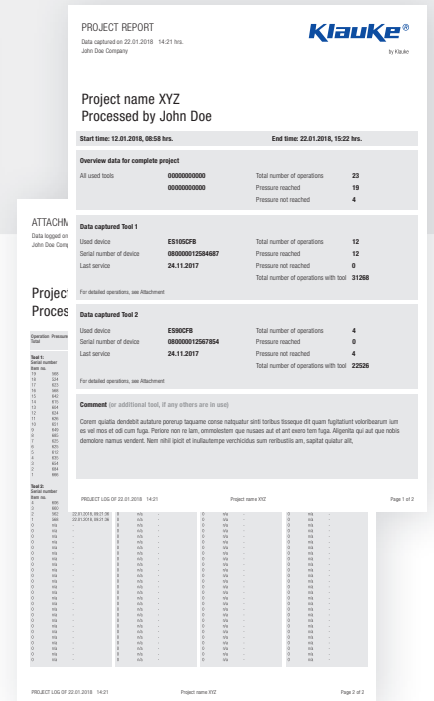
## CREATING AND TRACKING PROJECTS

The last 5 pressure values, the device temperature or the remaining operations – all important information can be easily read off.



## DOCUMENTING AND ARCHIVING

When a project is closed, an overview containing all the pressure values is generated. You can use this as documentary proof and for archiving purposes.



## Make the most of it – make your day-to-day operations more effective, more ergonomic and more innovative

- Get an overview of your tool data
- Plan your maintenance schedule
- Minimise your downtimes
- Increase availability and service life with regular maintenance and inspections
- Helps you organise your work
- Create projects based on installation and building plans
- Document and archive every single crimp in one report
- Proof of your daily activities



Reads out all tool data, so you can check the tool status. i-press® also gives you proof of quality assessment in the form of a project report. i-press® is a Desktop application which you can download free-of-charge from the Klauke website.

The new **i-press®** software can be found at [www.klauke.com/de/support/download/connectivity-werkzeugdaten-auslesen/](http://www.klauke.com/de/support/download/connectivity-werkzeugdaten-auslesen/)





## Crimping

Battery powered hydraulic crimping tools

### EK 35/4 Battery powered hydraulic crimping tool 6 - 150 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Large cross section range up to 150 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Simple and safe: Automatic retraction when operation is complete
- Effortless working thanks to low weight
- LED for work area illumination
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- 4-series interchangeable dies, narrow crimping









































**K4  
SERIE**

Technical data	
Crimping force	35 kN
Stroke / opening width	9 mm
Crimping range	6 - 150 mm <sup>2</sup>
Crimping cycle	3 s to 4 s (depending on crimp cross-section)
Charging time	15 min.
Weight incl. battery	2.4 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic crimping tool 6 - 150 mm <sup>2</sup>	<b>EK354CFB</b>	<b>EK354CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered crimping tool EK354CFB, 6 - 150 mm <sup>2</sup>	LBOXXEK354CFB		205
L-BOXX with battery powered crimping tool EK354CFM, 6 - 150 mm <sup>2</sup>		LBOXXEK354CFM	205

## Available dies for Series 4 for EK 35/4

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection® for compacted conductors acc. to DIN EN 60228		6 - 150		329
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 150		328
Insulated tubular cable lugs and compression joints, standard type, insulated pin terminals		10 - 70		328
Tubular cable lugs and connectors for fine stranded conductors		10 - 35		329
Tubular cable lugs and compression joints for solid conductors		1.5 - 16		329
<b>Tubular cable lugs and connectors, Ni, stainless steel</b>				
Tubular cable lugs and connectors, stainless steel		0.5 - 16		329
Tubular cable lugs and connectors, Ni		0.5 - 16		329
<b>Copper compression cable lugs and connectors acc. to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1)		6 - 120		330
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Solderless terminals (DIN 46234) and pin terminals (DIN 46230) Cu, connectors (DIN 46341)		6 - 35		330
Insulated solderless terminals and pin terminals		10 - 16		330
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 150 se / 120 sm		331
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 - 70		331
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182		25 - 50		331
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA4, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD4		10 - 70		331
<b>Clamps</b>				
Clamps, C-type		4 - 35		331
<b>Cable end-sleeves</b>				
Cable end-sleeve		10 - 50		332
Twin cable end-sleeves		2 x 4 - 2 x 16		332
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 50		332
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		332



# Crimping

Battery powered hydraulic crimping tools

## EK 50/5 Battery powered hydraulic crimping tool 6 - 240 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Very large crimping range to 240 mm<sup>2</sup> (tubular cable lugs only)
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working thanks to low weight
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- 5-series interchangeable dies, narrow crimping

































**K5  
SERIE**

Technical data	
Crimping force	50 kN
Stroke / opening width	12 mm
Crimping range	6 - 240 mm <sup>2</sup>
Crimping cycle	4 s to 5 s (depending on crimp cross-section)
Charging time	15 min.
Weight incl. battery	2.4 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic crimping tool 6 - 240 mm <sup>2</sup>	<b>EK505CFB</b>	<b>EK505CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered crimping tool EK505CFB, 6-240 mm <sup>2</sup>	LBOXXEK505CFB		205
L-BOXX with battery powered crimping tool EK505CFM, 6-240 mm <sup>2</sup>		LBOXXEK505CFM	205

## Available dies for Series 5 for EK 50/5

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 185		333
Tubular cable lugs and connectors, Cu, standard type		6 - 240		333
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 95		333
Tubular cable lugs and connectors for fine stranded conductors		10 - 50		334
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Cooper compression cable lugs (DIN 46235) and connectors (DIN 46267), part 1) Cu		6 - 185		334
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Solderless terminals (DIN 46234) and pin terminals (DIN 46230)		10 - 50		334
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 240 sm		335
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 - 150		335
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182		25 - 95		335
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 - 150		335
<b>Clamps</b>				
Clamps, C-type		4 - 35		335
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 95		336
Twin cable end-sleeves		2 x 4 - 2 x 16		336
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 95		336
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		336



# Crimping

Battery powered hydraulic crimping tools

## EK 50/18 Battery powered hydraulic crimping tool 6 - 240 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ For dies acc. to DIN 48083, sheet 1
- ▶ Fast crimp cycles due to Automatic Retraction Stop (ARS)
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- All data can be easily read via Bluetooth
- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working thanks to low weight
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- 18-series interchangeable dies, narrow crimping

































**K18  
SERIE**

Technical data			
Crimping force	50 kN		
Stroke / opening width	17 mm		
Crimping range	6 - 240 mm <sup>2</sup>		
Crimping cycle	5 s to 6 s (depending on cross-section)		
Charging time	15 min.		
Weight incl. battery	2.8 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic crimping tool 6 - 240 mm <sup>2</sup>	<b>EK5018CFB</b>	<b>EK5018CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered crimping tool EK5018CFB, 6 - 185 mm <sup>2</sup>	LBOXXEK5018CFB		205
L-BOXX with battery powered crimping tool EK5018CFM, 6 - 185 mm <sup>2</sup>		LBOXXEK5018CFM	205



## Available dies for Series 18 for EK 50/18

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		6 - 240		337
Insulated tubular cable lugs and compression joints, insulated pin terminals		10 - 95		337
Tubular cable lugs and connectors for fine stranded conductors		10 - 50		337
Tubular cable lugs and connectors for solid conductors		1.5 - 16		338
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Copper compression cable lugs (DIN46235) and compression joints (DIN 46267, part 1)		6 - 185		338
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Solderless terminals (DIN 46234) and pin terminals (DIN 46230), solderless connectors (DIN 46341) Cu		10 - 70		338
Insulated solderless terminals and pin terminals		10 - 50		338
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 240 sm		339
<b>Aluminum compression cable lugs and connectors acc. to DIN - Al</b>				
Aluminum compression cable lugs and connectors acc. to DIN - Al		10 - 185		339
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182		25 - 95		339
<b>Clamps</b>				
Clamps, C-type		4 - 50		339
<b>Cable end-sleeves</b>				
Cable end-sleeves		4 - 95		340
Twin cable end-sleeves		2 x 4 - 2 x 16		340
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 95		340
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		340



# Crimping

Battery powered hydraulic crimping tools

## EKM 60/22 Battery powered hydraulic crimping tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- 22-series interchangeable dies, narrow crimping















































Technical data	
Crimping force	60 kN
Hub	17.5 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	2 s (bei ARS) und 5 s (depending on crimp cross-section)
Charging time	15 min.
Weight incl. battery	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>EKM6022CFB</b>	<b>EKM6022CFM</b>	
<b>Scope of supply</b>			<b>Page</b>
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Plastic case	KK50NG		
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case		KK50L	
<b>Accessories</b>			<b>Page</b>
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
<b>Variants</b>			<b>Page</b>
L-BOXX with battery powered crimping tool EKM6022CFB, 6 - 300 mm <sup>2</sup>	LBOXXEKM6022CFB		205
L-BOXX with battery powered crimping tool EKM6022CFM, 6 - 300 mm <sup>2</sup>		LBOXXEKM6022CFM	205

## Available dies for Series 22 for EKM 60/22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 300		342
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		341
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		341
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		342
Tubular cable lugs and connectors for solid conductors		10 - 50		342
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		342
Nickel tubular cable lugs and connectors		10 - 50		342
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		343
Double compression cable lugs		2 x 50 - 2 x 70		343
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		343
Insulated solderless terminals		10 - 70		343
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 240 sm		344
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 300		344
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		344
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		345
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		345
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 - 300		344
<b>Clamps</b>				
Clamps, C-type		4 - 70		345
Clamps, H-type		70		345
<b>Cable end-sleeves</b>				
Twin cable end-sleeves		2 x 4 - 2 x 16		346
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 240		346
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		346



### EK 60/22 Battery powered hydraulic crimping tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ Fast crimp cycles due to Automatic Retraction Stop (ARS)
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- 22-series interchangeable dies, narrow crimping



**K22  
SERIE**













































Technical data	
Crimping force	60 kN
Hub	17 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 5 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	4.4 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>EK6022CFB</b>	<b>EK6022CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Item	Part No.		Page
EK 60/22 with crimping die set D 22 from 16 - 240 mm <sup>2</sup>	EK6022CFMSETD		
EK 60/22 with crimping die set R 22 from 16 - 240 mm <sup>2</sup>	EK6022CFMSETR		



## Available dies for Series 22 for EK 60/22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 300		342
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		341
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		341
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		342
Tubular cable lugs and connectors for solid conductors		1.5 - 16		342
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		342
Nickel tubular cable lugs and connectors		10 - 50		342
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		343
Double compression cable lugs		2 x 50 - 2 x 70		343
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 70		343
Insulated solderless terminals		10 - 70		343
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 240 sm		344
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 300		344
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		344
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		345
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		345
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 - 300		344
<b>Clamps</b>				
Clamps, C-type		4 - 70		345
Clamps, H-type		70		345
<b>Cable end-sleeves</b>				
Twin cable end-sleeves		2 x 4 - 2 x 16		346
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 240		346
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		346



# Crimping

Battery powered hydraulic crimping tools

## EK 60 VP Battery powered hydraulic crimping tool 10 - 240 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Crimps optimised at all times due to the patented centring system
- ▶ Fast crimp cycles due to Automatic Retraction Stop (ARS)
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Quad-point indent crimping feature with patented centring system, no dies required
- Open head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Always ready-to-use thanks to battery charge and service display



Technical data	
Crimping force	55 kN
Crimping range	10 - 240 mm <sup>2</sup>
Crimping cycle	3 s to 6 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	5.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>EK60VPCFB</b>	<b>EK60VPCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Gauge and 10 Test cylinder	TS10B	TS10B	

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs, standard type, tubular cable lugs for switchgear connections		10-240	
Connectors, standard type		10-120	
Tubular cable lugs for fine stranded conductors		10-240	
Connectors for fine stranded conductors		10-95	

## EK 60 VP/FT Battery powered hydraulic crimping tool 16 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**







- ▶ Suitable for crimping tubular cable lugs and connectors „standard type“ and fine and superfine stranded conductors to 300 mm<sup>2</sup>
- ▶ Fast crimp cycles due to Automatic Retraction Stop (ARS)
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Quad-point indent crimping feature with patented centring system, no dies required
- Closed head with bolt interlock, rotatable, flip top style
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display



Technical data			
Crimping force	55 kN		
Crimping range	16 - 300 mm <sup>2</sup>		
Crimping cycle	3 s to 6 s (depending on crimp cross-section)		
Charging time	45 min.		
Weight incl. battery	5.1 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic crimping tool 16 - 300 mm <sup>2</sup>	<b>EK60VPFTCFB</b>	<b>EK60VPFTCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Tubular cable lugs and connectors - Cu			
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16-300	
Tubular cable lugs and connectors for fine stranded conductors		16-300	



# Crimping

Battery powered hydraulic crimping tools

## EKM 60 ID Battery powered hydraulic crimping tool 10 - 240 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Extra large crimping area due to innovative 2-stage telescopic cylinder
- ▶ Indent crimping - no changing of dies required
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- With innovative 2-stage telescopic cylinder
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Very well suited for compacted conductors
- Especially for fine strand conductors to DIN VDE 60228



Technical data	
Crimping force	30 - 60 kN
Stroke / opening width	35.5 mm
Crimping range Cu	10 - 240 mm <sup>2</sup>
Crimping range Al	50 - 240 mm <sup>2</sup>
Crimping cycle	2 s (for ARS) to 7 s (depending on cross-section)
Charging time	15 min.
Weight incl. battery	2.5 kg
Ambient temperature	-10 °C up to +40 °C

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, Tubular cable lugs for switch gear connections		10 - 240	
Tubular cable lugs and connectors for fine stranded conductors		10 - 240	
<b>Terminals, connectors and pin terminals acc. to DIN</b>			
Solderless terminals (DIN 46234) connectors and pin terminals (DIN 46230, DIN 46341)		10 - 240	
<b>Aluminum compression cable lugs and connectors</b>			
Aluminum compression cable lugs and connectors acc. to DIN		50 - 240	
Compression joints acc. to DIN 48085, part 3 for Al/St-cable acc. to DIN EN 50182		50 - 240	
<b>Aluminum/copper compression cable lugs and connectors</b>			
Aluminum/copper compression cable lugs and connectors		50 - 240	

Item	Part No. Bosch	Part No. Makita
Battery powered hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>EKM60IDCFB</b>	<b>EKM60IDCFM</b>
<b>Scope of supply</b>		
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1 491
Makita quick-charger for 18 V Li-Ion battery		LGL1 494
Plastic case	KK50NG	KK50NG
<b>Accessories</b>		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40 492
<b>Variants</b>		
L-BOXX with battery powered crimping tool EKM60IDCFB, 10 - 240 mm <sup>2</sup>	LBOXXEKM60IDCFB	205
L-BOXX with battery powered crimping tool EKM60IDCFM, 10 - 240 mm <sup>2</sup>		LBOXXEKM60IDCFM 205

## EK 120 ID Battery powered hydraulic crimping tool 35 - 500 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ For superfine-stranded conductors to 500 mm<sup>2</sup>
- ▶ Indent crimping, no dies required
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

### Technical data

Crimping force	108 kN
Stroke / opening width	52 mm
Crimping range	35 - 500 mm <sup>2</sup>
Crimping cycle	10 s to 11 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	7.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic crimping tool 35 - 500 mm <sup>2</sup>	<b>EK120IDCFB</b>	<b>EK120IDCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492





## Crimping

Battery powered hydraulic crimping tools

### EK 120/32 Battery powered hydraulic crimping tool 16 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Very large crimping range up to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- 13-series interchangeable dies, wide crimping









































**K13  
SERIE**

Technical data			
Crimping force	120 kN		
Stroke / opening width	32 mm		
Crimping range	16 - 400 mm <sup>2</sup>		
Crimping cycle	7 s to 8 s (depending on crimp cross-section)		
Charging time	45 min.		
Weight incl. battery	6.8 kg		
Ambient temperature	-10° C up to +40 °C		
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>EK12032CFB</b>	<b>EK12032CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

## Available dies for Series 13 for EK 120/32

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		347
Butt connectors, standard type		16 - 185		347
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		347
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		348
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN46230) and connectors (DIN 46267, part 1) Cu		10 - 300		348
Compression joints DIN 46267 part 1		10 - 150		348
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		10 - 150		349
Insulated terminals and pin terminals		10 - 95		349
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		349
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 - 240		350
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182, Al conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints acc. to DIN 45085, part 3 for Al-steel cable acc. to DIN EN 50182, aluminum crimping		24/4 - 120/20		350
Compression joints acc. to DIN 48085, part 3 for Al-steel cables acc. to DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 - 240		350
<b>Clamps</b>				
Clamps, C-type		10 - 70		351
Clamps, H-type		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351





## Crimping

Battery powered hydraulic crimping tools

### EK 120/42 Battery powered hydraulic crimping tool 16 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ C-head with very wide crimping range to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ Easy handling by optimum weight distribution
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- 13-series interchangeable dies, wide crimping





































**K13  
SERIE**

Technical data	
Crimping force	120 kN
Stroke / opening width	42 mm
Crimping range	16 - 400 mm <sup>2</sup>
Crimping cycle	8 s to 9 s (depending on crimp cross-section)
Charging time	45 min.
Weight incl. battery	7.1 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>EK12042CFB</b>	<b>EK12042CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

## Available dies for Series 13 for EK 120/42

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		347
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		347
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		348
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		348
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		10 - 150		349
Insulated terminals and pin terminals		10 - 95		349
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors		10 sm - 300 se / 300 sm		349
<b>Aluminum compression cable lugs and connectors acc. to DIN</b>				
Aluminum compression cable lugs and connectors acc. to DIN		10 - 240		350
Compression points for full tension connections of Aldrey cables acc. to DIN EN 50182, Al conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints acc. to DIN 48085, part 3 for Al-steel cables acc. to DIN EN 50182, aluminum crimping		25/4 - 120/20		350
Compression joints acc. to DIN 45085, part 3 for Al-steel cables acc. to DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 - 240		350
<b>Clamps</b>				
Clamps, C-type		10 - 70		351
Clamps, H-type		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351

### EK 120 U Battery powered hydraulic crimping tool 16 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ H-head for deep groove crimps
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for



































- 13-series interchangeable dies, wide crimping

**K13  
SERIE**

**IEC**

Technical data			
Crimping force	120 kN		
Stroke / opening width	20 mm		
Crimping range	16 - 400 mm <sup>2</sup>		
Crimping cycle	7 s to 8 s (depending on crimp cross-section)		
Charging time	45 min.		
Weight incl. battery	6.2 kg		
Ambient temperature	-10° C up to +40 °C		
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>EK120UCFB</b>	<b>EK120UCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

## Available dies for Series 13 for EK 120 U

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connectors		16 - 400		347
Insulated tubular cable lug and compression joints		10 - 150		347
Tubular cable lugs and connection for fine stranded conductors		10 - 150		348
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		348
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		10 - 150		349
Insulated terminals and pin terminals		10 - 95		349
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors, 3 and 4 core sector shaped conductors		10 sm - 300 se / 300 sm		349
<b>Compression cable lugs and connectors acc. To DIN-Al</b>				
Compression cable lugs and connectors acc. To DIN-Al		10 - 240		350
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182, Al conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints acc. to DIN 48085, part 3 for Al-steel cables acc. to DIN EN 50182, aluminum crimping		25/4 - 120/20		350
Compression joints acc. to DIN 48085, part 3 for Al-Steel cables acc. to DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors		10 - 240		350
<b>Clamps and screw connectors</b>				
C-clamps		10 - 70		351
H-clamps		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351



## Crimping

Battery powered hydraulic crimping tools

### EK 135 FT Battery powered hydraulic crimping tool 10 - 630 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ Very large crimping range to 630 mm<sup>2</sup>
- ▶ Very powerful with a crimping force of 13.5 t
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, rotatable
- Quality assurance via visual and audible signals in case of error
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Automatic retract stop (ARS) for positioning control in case of multiple crimps
- Always ready-to-use thanks to battery charge and service display

#### Suitable for







































- 13-series interchangeable dies, wide crimping
- 15-series interchangeable dies, wide crimping



Technical data	
Crimping force	135 kN
Stroke / opening width	50.8 mm
Crimping range	10 - 630 mm <sup>2</sup>
Crimping cycle	ca. 10 s to 11 s (depending on cross-section)
Charging time	45 min.
Weight incl. battery	10.2 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic crimping tool 10 - 630 mm <sup>2</sup>	<b>EK135FTCFB</b>	<b>EK135FTCFM</b>	
Scope of supply			Page
Adapter for crimping dies series 13	UA15T	UA15T	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK135FTNG	KK135FTNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

## Available dies for Series 13 and 15 for EK 135 FT

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 630		347
Insulated terminals and connectors, Insulated pin terminals		10 - 150		347
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		348
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		348
Nickel tubular cable lugs and connectors		70 - 95		348
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		10 - 625		348, 352
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals to DIN - Cu</b>				
Copper solderless terminals (DIN 46234) and pin terminals (DIN 46230) acc. to DIN, copper solderless connectors (DIN 46341) acc. to DIN		10 - 150		349
Insulated solderless terminals and pin terminals		10 - 95		349
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors, 3- and 4-core sector-shaped conductors		10 sm - 300 se / 300 sm		349
<b>Aluminum compression cable lugs and connectors to DIN</b>				
Aluminum compression cable lugs and connectors to DIN		10 - 500		350, 352
Compression joints for full tension connections of Aldrey conductors acc. to DIN EN 50182, Al-conductor acc. to DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints acc. to DIN 48085, part 3 for Al/St-cable acc. to DIN EN 50182, Aluminum crimping		25/4 - 120/20		350
Compression joints acc. to DIN 48085, part 3 for Al/St-cables acc. to DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum/copper compression cable lugs and connectors acc. to DIN		10 - 500		350, 352
<b>Clamps</b>				
Clamps, C-type		10 - 70		351
Clamps, H-type		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, special trapezoid crimp for fine stranded conductors		25 - 240		351



# Crimping

Battery powered hydraulic crimping tools

## EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press® app
- ▶ Small and slim, perfect for cramped conditions

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



**K22  
SERIE**

**K18  
SERIE**

**K5  
SERIE**

Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	7 s up to 9 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square
Charging time	15 min.
Weight	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EKM60UNVCFB</b>	<b>EKM60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Adapter for crimping dies of Series 22	UA22	UA22	478
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered universal tool EKM60UNVCFB	LBOXXEKM60UNVCFB		205
L-BOXX with battery powered universal tool EKM60UNVCFM		LBOXXEKM60UNVCFM	205

**EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>**

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ Fast working due to 2-stage hydraulics
- ▶ All tool data on view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

**Technical instructions**

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 5 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round
Charging time	45 min.
Weight	4.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EK60UNVCFB</b>	<b>EK60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	UA22	UA22	478
Adapter for crimping dies of Series 22	KK120UNVNG	KK120UNVNG	

3





## Crimping

Battery powered hydraulic crimping tools

### EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



**K13  
SERIE**

Technical data	
Crimping force	108 kN
Stroke	42 mm
Crimping range	10 - 400 mm <sup>2</sup>
Crimping cycle	Depending on cable type
Cutting range	max. 40 mm dia.
Punching capacity	up to 144 mm dia. round, up to 138 x 138 mm square
Charging time	45 min.
Weight	6.5 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery-powered hydraulic universal tool 10 - 400 mm <sup>2</sup>	<b>EK120UNVCFB</b>	<b>EK120UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40		492
Makita quick-charger for 18 V Li-Ion battery	LGL1		494
Plastic case 450 x 370 x 105 mm	KK120UNVNG	KK120UNVNG	
Adapter for crimping dies	UA12TKL	UA12TKL	478



# EASY TO HANDLE - HAND-OPERATED HYDRAULIC CRIMPING TOOLS

Klauke tools work for you. The 2-stage hydraulic system ensures automatic retraction after crimping. Rotating heads come into their own even in confined areas and support you up to a cross-sectional range of 400 mm<sup>2</sup>. Aluminium makes the tool lighter and the work easier. The bolt interlock makes the device safe when not in use. You save energy and time. All you need to do yourself is crimp.



## ► Convenient to use

Several crimps in succession are tiring. And so for our hand-operated hydraulic tools, we produced the housing and pump lever from aluminium to achieve a low weight. The pump lever is in exactly the correct position, and so the pump movement requires only a small space. Work better with the convenience of Klauke.

- Large crimping range up to 400 mm<sup>2</sup>
- Ergonomic design for effortless operations
- 2-stage hydraulic system with fast feed and power stroke
- Simple and reliable due to automatic retraction after every crimping operation
- Low weight thanks to the aluminium pump lever and housing

## ► Adapts

All hand-operated hydraulic crimping tools have crimping heads that rotate through 360°. You can work even in confined areas with flexible settings.

- 360° rotating crimping heads for safe operations in confined spaces
- Well suited for installing cable joints underground or in panel building

## ► Save yourself the return stroke

Your effort goes only into the crimping process. When the crimping process is complete, the crimping jaws retract into the home position via the automatic retraction function.



## Crimping

Hand-operated hydraulic crimping tools

### HK 60/18 Hand-operated hydraulic crimping tool 6 - 240 mm<sup>2</sup>



**K18**  
SERIE

- ▶ For standardised crimping dies to DIN 48083
- ▶ Effortless operations thanks to low weight

#### Characteristics

- Closed head, flip top style, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

#### Suitable for

- 18-series interchangeable dies, narrow crimping

































#### Technical data

Crimping force	60 kN
Stroke	14 mm
Crimping range	6 - 240 mm <sup>2</sup>
Length	470 mm
Weight	3.0 kg
Ambient temperature	-20 up to +40 °C

Item	Part No.
Hand-operated hydraulic crimping tool 6 - 240 mm <sup>2</sup>	<b>HK6018</b>
Scope of supply	Part No.
Steel carrying case	MK6018

## Available dies for Series 18 for HK 60/18

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 240		337
Insulated cable lugs and compression joints, standard type, insulated pin terminals		10 - 95		337
Tubular cable lugs and connectors for fine stranded conductors		10 - 50		337
Tubular cable lugs and connectors for solid conductors		1.5 - 16		338
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and compression joints acc. to DIN		6 - 185		338
<b>Terminals, connectors and pin terminals acc. to DIN - copper</b>				
Solderless terminals (DIN 46234) and pin terminals (DIN 46230), solderless connectors (DIN 46341)		10 - 70		338
Insulated solderless terminals		10 - 50		338
<b>Sleeves for compacted conductors and sector shaped conductors, copper</b>				
Pre-rounding dies for sector shaped Al and Cu conductors		10 sm - 300 se / 240 sm		339
<b>Aluminium compression cable lugs and connectors acc. to DIN</b>				
Aluminium compression cable lugs and connectors		10 - 185		339
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182		25 - 95		339
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D		10 - 185		339
<b>Clamps</b>				
Clamps, C-type		4 - 50		339
<b>Cable end-sleeves</b>				
Cable end-sleeves		10 - 95		340
Twin cable end-sleeves		2 x 4 - 2 x 16		340
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 95		340
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		340
<b>Cutting die</b>				
Cutting die		18 mm dia.		412



## Crimping

Hand-operated hydraulic crimping tools

### HK 60/22 Hand-operated hydraulic crimping tool 6 - 300 mm<sup>2</sup>



- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical

#### Characteristics

- Closed head, flip top style, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

#### Suitable for

- 22-series interchangeable dies, narrow crimping













































#### Additional information

- Part Number appendix for W crimping dies (UL-tested) "W"

Technical data	
Crimping force	60 kN
Stroke	17 mm
Crimping range	6 - 300 mm <sup>2</sup>
Length	460 mm
Weight	3.3 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 6 - 300 mm <sup>2</sup>	<b>HK6022</b>
Scope of supply	Part No.
Steel carrying case	MK6022
Variants	Part No.
HK 60/22 with crimping die set R 22 from 16 - 240 mm <sup>2</sup>	HK6022SETR
HK 60/22 with crimping die set D 22 from 16 - 240 mm <sup>2</sup>	HK6022SETD

## Available dies for Series 22 for HK 60/22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 300		342
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		6 - 300		341
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		341
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		342
Tubular cable lugs and connectors for solid conductors		1.5 - 16		342
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		342
Nickel tubular cable lugs and connectors		10 - 50		342
<b>Copper compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		6 - 300		343
Double crimping compression cable lugs		2 x 50 - 2 x 70		343
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		10 - 70		343
Insulated terminals and pin terminals		10 - 70		343
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 240 sm		344
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 300		344
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		344
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25 / 4 - 120 / 20		345
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25 / 4 - 120 / 20		345
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 - 300		334
<b>Clamps</b>				
Clamps, H-type		70		345
Clamps, C-type		4 - 70		345
<b>Cable end-sleeves</b>				
Twin cable end-sleeves		2 x 4 - 2 x 16		346
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 240		346
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		346



# Crimping

Hand-operated hydraulic crimping tools

## HK 60 VP Hand-operated hydraulic crimping head 10 - 240 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors “standard type“ and fine and superfine stranded conductors up to 240 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time

### Characteristics

- Quad-point indent crimping feature with patented centring system, no dies required
- Open head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

### Technical data

Crimping force	55 kN
Crimping range	10 - 240 mm <sup>2</sup>
Length	525 mm
Weight	4.1 kg
Ambient temperature	-20 °C up to +40 °C

Item	Part No.
Hand-operated hydraulic crimping tool 10 - 240 mm <sup>2</sup>	<b>HK60VP</b>
Scope of supply	Part No.
Steel carrying case	MK60VP
Gauge and 10 test cylinder	TS10B
Accessories	Part No.
Gauge and 10 test cylinder	TS10B



Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs, standard type, tubular cable lugs for switchgear connections		10 - 240	
Tubular cable lugs for fine stranded conductors		10 - 240	
Connectors for fine stranded conductors		10 - 95	
Connectors, standard type		10 - 120	

## HK 60 VP/FT Hand-operated hydraulic crimping head 16 - 300 mm<sup>2</sup>







- ▶ Suitable for crimping tubular cable lugs and connectors "standard type" and fine and superfine stranded conductors to 300 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time
- ▶ Closed crimping head - ideal for utility lines construction

### Characteristics

- Quad-point indent crimping feature with patented centring system, no dies required
- Closed head with bolt interlock, rotatable, flip top style
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data	
Crimping force	55 kN
Crimping range	16 - 300 mm <sup>2</sup>
Length	535 mm
Weight	4.1 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part-No.
Hand-operated hydraulic crimping tool 16 - 300 mm <sup>2</sup>	<b>HK60VPFT</b>
Scope of supply	Part-No.
Steel carrying case	MK60VP
Gauge and 10 test cylinder	TS10B
Accessories	Part.-No.
Gauge and 10 test cylinder	TS10B



Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 300	
Tubular cable lugs and compression joints for fine stranded conductors		16 - 300	





## Crimping

Hand-operated hydraulic crimping tools

### HK 120/30 Hand-operated hydraulic crimping tool 16 - 400 mm<sup>2</sup>



- ▶ Very large crimping range to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools

#### Characteristics

- Open head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

#### Suitable for







































- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Stroke	30 mm
Crimping range	16 - 400 mm <sup>2</sup>
Length	510 mm
Weight	5.4 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 10 - 400 mm <sup>2</sup>	<b>HK12030</b>
Scope of supply	Part No.
Steel carrying case	MK12042



## Available dies for Series 13 for HK 120/30

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		347
Butt connectors, standard type		16 - 185		347
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		347
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		348
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs and connectors to DIN		10 - 300		348
Compression joints DIN 46267, part 1		10 - 150		348
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 150		349
Insulated solderless terminals		10 - 95		349
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		349
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium connectors		10 - 120		350
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		350
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A13, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D13		10 - 240		350
<b>Clamps</b>				
Clamps, C-type		10 - 70		351
Clamps, H-type		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351



## Crimping

Hand-operated hydraulic crimping tools

### HK 120/42 Hand-operated hydraulic crimping tool 16 - 400 mm<sup>2</sup>



- ▶ Very large crimping range up to 400 mm<sup>2</sup>
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools
- ▶ C-head with larger 42 mm jaw opening

#### Characteristics

- Open head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

#### Suitable for

































- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Stroke	42 mm
Crimping range	16 - 400 mm <sup>2</sup>
Length	560 mm
Weight	5.9 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>HK12042</b>
Scope of supply	Part No.
Steel carrying case	MK12042



## Available dies for Series 13 for HK 120/42

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 400		347
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		347
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		348
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		10 - 300		348
Double crimping compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		10 - 150		349
Insulated terminals and pin terminals		10 - 95		349
<b>Pre-rounding crimping dies</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors, 3 and 4 core sector shaped conductors		10 sm - 300se / 300 sm		349
<b>Compression cable lugs and connectors acc. to DIN - Al</b>				
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182, Al conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints acc. to DIN 48085, part 3 for Al-steel cables acc. to DIN EN 50182, aluminium crimping		25/4 - 120/20		350
Compression joints acc. to DIN 48085, part 3 for Al-steel cables acc. to DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminum/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA13, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD13		10 - 240		350
<b>Clamps and screw connectors</b>				
C-clamps		10 - 70		351
H-clamps		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351



## Crimping

Hand-operated hydraulic crimping tools

### HK 120 U Hand-operated hydraulic crimping tool 16 - 400 mm<sup>2</sup>



- ▶ H-head for deep groove crimps
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to 6 t tools

#### Characteristics

- Closed head, rotatable
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

#### Suitable for

































- 13-series interchangeable dies, wide crimping

Technical data	
Crimping force	120 kN
Stroke	20 mm
Crimping range	16 - 400 mm <sup>2</sup>
Length	540 mm
Weight	5.2 kg
Ambient temperature	-20 °C up to +40 °C
Item	Part No.
Hand-operated hydraulic crimping tool 16 - 400 mm <sup>2</sup>	<b>HK120U</b>
Scope of supply	Part No.
Steel carrying case	MK120U

**K13**  
SERIE

## Available dies for Series 13 for HK 120 U

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 400		347
Insulated cable lugs and compression joints, standard type		10 - 150		347
Tubular cable lugs and compression joints for fine stranded conductors		10 - 150		348
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs and connectors to DIN		10 - 300		348
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors and pin terminals (DIN 46230) acc. to DIN		10 - 150		349
Insulated solderless terminals		10 - 95		349
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		349
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		350
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA13, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD13		10 - 240		350
<b>Clamps</b>				
Clamps, C-type		10 - 70		351
Clamps, H-type		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351





# FLEXIBLE HEADS - HYDRAULIC CRIMPING HEADS AND CRIMPING TOOL SYSTEMS

**3**

No matter whether continuous operation in the workshop or portable use in the field - Klauke crimping heads and systems provide the right solution each and every time.



## ► The Klauke system

Full flexibility with the Klauke system - all hydraulic heads and pumps are mutually compatible and your 13, 18 and 22 series crimping dies can also be used in the hydraulic crimping heads.

- Crimping heads for the 13, 18 and 22 series, also for workbench mounting
- Crimping heads with a crimping force of 55 kN to 1000 kN
- Workbench tools BG-tested

## ► High crimping force for greater width

The crimping heads achieve a crimping force of 55 kN to 1000 kN. Allowing you to process cable lugs of up to 1600 mm<sup>2</sup>.

- Compact design
- Easy handling
- Versatile
- Broadest range of applications





## Crimping

Hydraulic crimping heads and crimping systems

### PK 18 Hydraulic crimping head 6 - 185 mm<sup>2</sup>



- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for optimum crimping results
- ▶ Crimping dies are spring-secured

#### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised

#### Suitable for

- 18-series interchangeable dies, narrow crimping
- Standardised dies to DIN 48083, sheet 1

Technical data		
Crimping force	60 kN	
Crimping range	6 - 185 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Length	310 mm	
Weight	3.2 kg	
Item	Part No.	
Hydraulic crimping head 6 - 185 mm <sup>2</sup>	<b>PK18</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196



**K18**  
SERIE

### THK 18 Hydraulic crimping tool for workbench mounting 6 - 185 mm<sup>2</sup>



- ▶ BG-compliant version
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for optimum crimping results

#### Characteristics

- Quick coupling
- For workbench mounting

#### Suitable for

































- 18-series interchangeable dies, narrow crimping
- Standardised dies to DIN 48083, sheet 1

Technical data		
Crimping force	60 kN	
Crimping range	6 - 185 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Weight	8.6 kg	
Dimensions	H x W x D: 220 x 160 x 120 mm	
Item	Part No.	
Hydraulic crimping tool for workbench mounting 6 - 185 mm <sup>2</sup>	<b>THK18</b>	

**K18**  
SERIE

## Available dies for Series 18 for PK 18

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 185		337
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 95		337
Tubular cable lugs and connectors for fine stranded conductors		10 - 50		337
Tubular cable lugs and connectors for solid conductors		1.5 - 16		338
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 185		338
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors (DIN 46341) and pin terminals (DIN 46230)		10 - 70		338
Insulated solderless terminals and connectors		10 - 50		338
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 240 sm		339
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 185		339
Compression joints for full-tension connections of Aldrey-conductors DIN EN 50182		25 - 95		339
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D		10 - 185		339
<b>Clamps</b>				
Clamps, C-type		4 - 50		339
<b>Cable end-sleeves</b>				
Cable end-sleeves		4 - 95		340
Twin cable end-sleeves		2 x 4 - 2 x 16		340
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 95		340
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		340
<b>Cutting die</b>				
Cutting die		18 mm dia.		412



## Crimping

Hydraulic crimping heads and crimping systems

### PK 22 Hydraulic crimping heads 6 - 300 mm<sup>2</sup>



**K22**  
SERIE

- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ Slim crimping head - ideal when space is critical

#### Characteristics

- Closed head, flip top style, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

#### Suitable for

- 22-series interchangeable dies, narrow crimping

#### Additional information

- Part Number appendix for W crimping dies (UL-tested) "W"

Technical data		
Crimping force	60 kN	
Stroke / opening width	17 mm	
Crimping range	6 - 300 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Length	305 mm	
Weight	3.0 kg	
Item	Part No.	
Hydraulic crimping head 6 - 300 mm <sup>2</sup>	<b>PK22</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196

### THK 22 Hydraulic crimping tool for workbench mounting 6 - 300 mm<sup>2</sup>



**K22**  
SERIE

- ▶ Large crimping range up to 300 mm<sup>2</sup>
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for optimum crimping results

#### Characteristics

- Quick coupling
- For workbench mounting
- BG-conformity version













































#### Suitable for

- 22-series interchangeable dies, narrow crimping

Technical data		
Crimping force	60 kN	
Crimping range	6 - 300 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Weight	8.8 kg	
Dimensions	H x W x D: 220 x 160 x 120 mm	
Item	Part No.	
Hydraulic crimping tool for workbench mounting 6 - 300 mm <sup>2</sup>	<b>THK22</b>	

## Available dies for Series 22 for PK 22 and THK 22

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors blue connection for compacted conductors acc. to Tubular cable lugs and connectors blue connection for compacted conductors acc. to DIN EN 60228		6 - 300		342
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		6 - 300		341
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		341
Tubular cable lugs and connectors for fine stranded conductors		10 - 70		342
Tubular cable lugs and connectors for solid conductors		1.5 - 16		342
<b>Tubular cable lugs and connectors, Ni, VA</b>				
Stainless steel tubular cable lugs and connectors		10 - 50		342
Nickel tubular cable lugs and connectors		10 - 50		342
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		6 - 300		343
Double compression cable lugs		2 x 50 - 2 x 70		343
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors (DIN 46341) and pin terminals (DIN 46230)		10 - 70		343
Insulated solderless terminals and connectors		10 - 70		343
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se/ 240 sm		344
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Aluminium compression cable lugs and connectors to DIN		10 - 300		344
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		344
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		345
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		345
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies A22, copper side of aluminum/copper compression cable lugs and connectors: crimping dies D22		10 - 300		344
<b>Clamps</b>				
Clamps, C-type		4 - 70		345
Clamps, H-type		70		345
<b>Cable end-sleeves</b>				
Twin cable end-sleeves		2 x 4 - 2 x 16		346
Cable end-sleeves, trapezoidal, for fine stranded conductors		10 - 240		346
Twin cable end-sleeves, trapezoidal, for fine stranded conductors		2 x 4 - 2 x 16		346



# Crimping

Hydraulic crimping heads and crimping systems

## PK 60 VP Hydraulic crimping head 10 - 240 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors “standard type“ and fine and superfine stranded conductors up to 240 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time
- ▶ No additional dies required

### Characteristics

- Quad-point indent crimping and wide crimping
- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data		
Crimping force	55 kN	
Crimping range	10 - 240 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Length	305 mm	
Weight	2.8 kg	
Item	Part No.	
Hydraulic crimping head 10 - 240 mm <sup>2</sup>	<b>PK60VP</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs, standard type, tubular cable lugs for switchgear connections		10 - 240	
Connectors, standard type		10 - 120	
Tubular cable lugs for fine stranded conductors		10 - 240	
Connectors for fine stranded conductors		10 - 95	

## PK 60 VP/FT Hydraulic crimping head 16 - 300 mm<sup>2</sup>



- ▶ Suitable for crimping tubular cable lugs and connectors “standard type“ and fine and superfine stranded conductors to 300 mm<sup>2</sup>
- ▶ The patented centring system guarantees optimum crimps every time
- ▶ Closed crimping head - ideal for utility lines construction, for example

### Characteristics

- Quad-point indent crimping and wide crimping
- Closed head, flip top style, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data		
Crimping force	55 kN	
Crimping range	16 - 300 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Length	315 mm	
Weight	2.8 kg	
Item	Part No.	
Hydraulic crimping head 16 - 300 mm <sup>2</sup>	<b>PK60VPFT</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
Copper tubular cable lugs and connectors			
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 300	
Tubular cable lugs and connectors for fine stranded conductors		16 - 300	

PK 60 ID Hydraulic crimping head 10 - 240 mm<sup>2</sup>



- ▶ Extra large crimping area due to innovative 2-stage telescopic cylinders (patent pending)
- ▶ Indent crimping - no changing of dies required

**Characteristics**

- Closed head, flip top style, rotatable
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data	
Crimping force	30 - 60 kN
Stroke / opening width	35.5 mm
Crimping range copper	10 - 240 mm <sup>2</sup>
Crimping range aluminum	50 - 240 mm <sup>2</sup>
Operating pressure	max. 700 bar
Length	249.5 mm
Weight	approx. 2.5 kg

Item	Part No.
Hydraulic crimping head 10 - 240 mm <sup>2</sup>	<b>PK60ID</b>

Scope of supply	Part No.	Page
Carrying bag	TT2	196

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile
<b>Copper tubular cable lugs and connectors</b>			
Tubular cable lugs and connectors, standard type, Tubular cable lugs for switch gear connections		10 - 240	
Tubular cable lugs and connectors for fine stranded conductors		10 - 240	
<b>Terminals, connectors and pin terminals acc. to DIN</b>			
Solderless terminals (DIN 46234) connectors and pin terminals (DIN 46230, DIN 46341)		10 - 240	
<b>Aluminum compression cable lugs and connectors</b>			
Aluminum compression cable lugs and connectors acc. to DIN		50 - 240	
Compression joints acc. to DIN 48085, part 3 for Al/St-cable acc. to DIN EN 50182		50 - 240	
Compression joints for full tension connections of Aldrey conductors acc. to DIN EN 50182, Al-conductor acc. to DIN EN 50182, 120 - 185 mm <sup>2</sup>		50 - 185	
<b>Aluminum/copper compression cable lugs and connectors</b>			
Aluminum/copper compression cable lugs and connectors		50 - 240	



## Crimping

Hydraulic crimping heads and crimping systems

### PK 120/42 Hydraulic crimping head 10 - 400 mm<sup>2</sup>



- ▶ Large crimping range up to 400 mm<sup>2</sup>
- ▶ C-head with larger 42 mm jaw opening
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to narrow crimping

#### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

#### Suitable for

- 13-series interchangeable dies, wide crimping

Technical data		
Crimping force	120 kN	
Stroke / opening width	42 mm	
Crimping range	10 - 400 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Length	335 mm	
Weight	4.5 kg	
Item	Part No.	
Hydraulic crimping head 10 - 400 mm <sup>2</sup>	<b>PK12042</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196



### THK 120 Hydraulic crimping tool for workbench mounting 10 - 400 mm<sup>2</sup>



- ▶ Large crimping range up to 400 mm<sup>2</sup>
- ▶ For workbench mounting
- ▶ BG-compliant version
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to narrow crimping

#### Characteristics

- Quick coupling
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

#### Suitable for

































- 13-series interchangeable dies, wide crimping

Technical data		
Crimping force	120 kN	
Crimping range	10 - 400 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Weight	12 kg	
Dimensions	H x W x D: 285 x 160 x 110 mm	
Item	Part No.	
Hydraulic crimping tool for workbench mounting 10 - 400 mm <sup>2</sup>	<b>THK120</b>	



## Available dies for Series 13 for PK 120/42 and THK 120

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 400		347
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		347
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		348
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) acc. to DIN		10 - 300		348
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Terminals, connectors and Solderless terminals (DIN 46234), connectors (DIN 46341) and pin terminals (DIN 46230)		10 - 150		349
Insulated solderless terminals and connectors		10 - 95		349
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		349
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		350
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminium/copper compression cable lugs and connectors		10 - 240		350
<b>Clamps</b>				
Clamps, C-type		10 - 70		351
Clamps, H-type		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351





## Crimping

Hydraulic crimping heads and crimping systems

### PK 120 U Hydraulic crimping head 10 - 400 mm<sup>2</sup>



- ▶ H-head for deep groove crimps
- ▶ Up to 60% fewer crimps thanks to wide crimping in comparison to narrow crimping

#### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

#### Suitable for

































- 13-series interchangeable dies, wide crimping

Technical data		
Crimping force	120 kN	
Stroke / opening width	20 mm	
Crimping range	10 - 400 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Length	320 mm	
Weight	3.7 kg	
Item	Part No.	
Hydraulic crimping head 10 - 400 mm <sup>2</sup>	<b>PK120U</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196

**K13**  
SERIE

## Available dies for Series 13 for PK 120 U

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Copper tubular cable lugs and connectors</b>				
Tubular cable lugs and connectors, standard type, tubular cable lugs for switchgear connections		16 - 400		347
Insulated cable lugs and compression joints, standard type, Insulated pin terminals		10 - 150		347
Tubular cable lugs and connectors for fine stranded conductors		10 - 150		348
<b>Copper compression cable lugs and connectors to DIN</b>				
Copper compression cable lugs and connectors to DIN		10 - 300		348
Double compression cable lugs		2 x 50 - 2 x 120		348
<b>Terminals, connectors and pin terminals acc. to DIN, copper</b>				
Solderless terminals (DIN 46234), connectors (DIN 46341) and pin terminals (DIN 46230)		10 - 150		349
Insulated solderless terminals and connectors		10 - 95		349
<b>Sleeves for compacted conductors and sector-shaped conductors, copper</b>				
Pre-rounding dies for sector-shaped Al and Cu conductors		10 sm - 300 se / 300 sm		349
<b>Aluminium compression cable lugs and connectors to DIN</b>				
Compression joints connections for Aldrey-conductors DIN EN 50182, Al-conductors DIN EN 50182, 120 - 185 mm <sup>2</sup>		25 - 185		350
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, aluminium crimping		25/4 - 120/20		350
<b>Aluminium compression cable lugs and connectors to DIN DIN - Al</b>				
Compression joints DIN 48085, part 3 for aluminium/steel conductors DIN EN 50182, steel crimping		25/4 - 120/20		350
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminum/copper compression cable lugs and connectors: crimping dies HA13, copper side of aluminum/copper compression cable lugs and connectors: crimping dies HD13		10 - 240		350
<b>Clamps</b>				
Clamps, C-type		10 - 70		351
Clamps, H-type		70 - 120		351
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		351
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		351



## Crimping

Hydraulic crimping heads and crimping systems

### PK 25/2 Hydraulic crimping head 16 - 625 mm<sup>2</sup>



- ▶ For dies acc. to DIN 48083, sheet 3
- ▶ Very large crimping range up to 625 mm<sup>2</sup>
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for optimum crimping results

#### Characteristics

- Head with quick coupling, 360° rotation when not pressurised

#### Suitable for

- 25-series interchangeable dies, wide crimping



































Technical data		
Crimping force	250 kN	
Stroke / opening width	20 mm	
Crimping range	16 - 625 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Length	335 mm	
Weight	5.3 kg	
Item	Part No.	
Hydraulic crimping head 16 - 625 mm <sup>2</sup>	<b>PK252</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196



**K25**  
SERIE

## Available dies for Series 25 for PK 25/2

Refer to the limitations when crimping connectors in the technical appendix.

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
<b>Tubular cable lugs and connectors, Cu</b>				
Tubular cable lugs and connectors, Cu, standard type, tubular cable lugs for switchgear connections		16 - 500		353
Insulated tubular cable lugs and connectors, insulated pin terminals		10 - 150		353
Tubular cable lugs and connectors for fine stranded conductors		16 - 300		354
<b>Compression cable lugs and connectors acc. to DIN - Cu</b>				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		16 - 625		354
Double crimping compression cable lugs		2 x 50 - 2 x 120		354
<b>Terminals, connectors and pin terminals acc. to DIN - Cu</b>				
Terminals (DIN 46234) and pin terminals (DIN 46230) Cu, solderless connectors (DIN 46341) Cu		16 - 240		354
Insulated terminals and pin terminals		10 - 150		355
<b>Sleeves for compacted conductors and sector shaped conductors, Cu</b>				
Pre-rounding crimping dies for Al and Cu sector shaped conductors, 3 and 4 core sector shaped conductors		10 sm - 300 se / 300 sm		355
<b>Compression cable lugs and connectors acc. to DIN - Al</b>				
Compression cable lugs and connectors acc. to DIN - Al		10 - 500		355
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182, Al conductors DIN EN 50182, 120 - 300 mm <sup>2</sup>		25 - 300		355
Compression joints acc. to DIN 48085, part 3 for Al-steel cables acc. to DIN EN 50182, aluminium crimping		25/4 - 120/20		356
Compression joints acc. to DIN 48085, part 3 for Al-steel cables acc. to DIN EN 50182, steel crimping		25/4 - 120/20		356
<b>Aluminium/copper compression cable lugs and connectors</b>				
Aluminum side of aluminium/copper compression cable lugs and connectors: crimping dies HA13, copper side of aluminium/copper compression cable lugs and connectors: crimping dies HD13		10 - 500		355
<b>Clamps and screw connectors</b>				
C-clamps		10 - 185		356
H-clamps		70 - 120		356
<b>Cable end-sleeves</b>				
Cable end-sleeves		25 - 240		357
Cable end-sleeves, trapezoidal, for fine stranded conductors		25 - 240		357



## Crimping

Hydraulic crimping heads and crimping systems

### PK 45 Hydraulic crimping head 120 - 1000 mm<sup>2</sup>



**K45**  
SERIE

- ▶ Very large crimping range to 1000 mm<sup>2</sup>
- ▶ Good sturdy construction for safe operations
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for optimum crimping results

#### Characteristics









- Head with quick coupling, 360° rotation when not pressurised

#### Suitable for

- 45-series interchangeable dies, wide crimping

Technical data		
Crimping force	450 kN	
Crimping range	120 - 1000 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Weight	10.3 kg	
Height	265 mm	
Item	Part No.	
Hydraulic crimping head 120 - 1000 mm <sup>2</sup>	<b>PK45</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196

### Available dies for Series 45 for PK 45

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
Compression cable lugs and connectors acc. to DIN - Cu				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1) Cu		120 - 1000		358
Compression cable lugs and connectors acc. to DIN - Al				
Compression cable lugs and connectors acc. to DIN - Al		150 - 500		358
Compression joints for full tension connections of Aldrey cables acc. to DIN EN 50182, Al conductors DIN EN 50182, 150 - 300 mm <sup>2</sup>		150 - 300		358
Aluminium/copper compression cable lugs and connectors				
Aluminium side of aluminium/copper compression cable lugs and connectors: crimping dies HA45, copper side of aluminium/copper compression cable lugs and connectors: crimping dies HD45		150 - 500		358

## PK 1000 Hydraulic 100 t crimping heads up to 1000 mm<sup>2</sup>



**K100**  
SERIE

- ▶ Single-acting crimping head for connecting to hydraulic pumps with 700 bar operating pressure
- ▶ Compact, simple design
- ▶ Extremely high crimping force

### Characteristics

- Nickel-plated version
- Quick coupling

### Suitable for



- Interchangeable dies (outer: to IZUMI standard EP-100W, inside: DIN standard or customer request)

### Additional information

- Also available in country-specific variants, Part Number appendix "C"

Technical data	
Crimping force	1000 kN
Stroke	25 mm
Crimping range	up to 1000 mm <sup>2</sup>
Operating pressure	max. 700 bar
Weight	Without dies: 27 kg
Height	Incl. handles: 365 mm
Dimensions	External diameter: 195 mm
Item	Part No.
Hydraulic 100 t crimping head with Cejn coupling	<b>PK1000</b>

### Available dies for Series 100 for PK 1000

Suitable for	Connection material	Crimping range mm <sup>2</sup>	Crimp profile	Page
Copper compression cable lugs and connectors acc. to DIN				
Compression cable lugs (DIN 46235) and connectors (DIN 46267, part 1)		625 - 1000		359

## TO CROSS-SECTION 1000 MM<sup>2</sup>

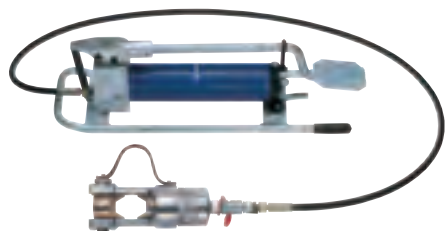
The hydraulic crimping head PK 1000 is suitable for crimping connectors and cables to DIN up to a cross-section of 1000 mm<sup>2</sup>. The crimping dies conform to DIN 48083 Part 3 in terms of their outer dimensions.



## Crimping

Hydraulic crimping heads and crimping systems

### HK 25/2 Hydraulic crimping tool with foot pump 16 - 625 mm<sup>2</sup>



- ▶ Extremely wide cross section range up to 625 mm<sup>2</sup>
- ▶ Hydraulic system with 250 kN crimping force
- ▶ Foot pump with two-stage hydraulics

#### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- Manual retract as required

#### Suitable for

- 25-series interchangeable dies, wide crimping

#### Additional information

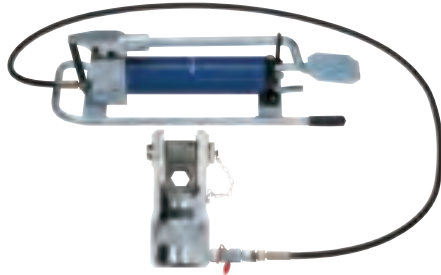
- The wide choice of available crimping dies can be found in chapter "Crimping dies" under Series 25.

Technical data	
Crimping force	250 kN
Crimping range	16 - 625 mm <sup>2</sup>
Operating pressure	max. 700 bar
Weight	17.6 kg



Item	Part No.	
Hydraulic crimping tool with foot pump 16 - 625 mm <sup>2</sup>	<b>HK252</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Steel carrying case	MKU	196
Accessories	Part No.	Page
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497

## HK 45 Hydraulic crimping tool with foot pump 120 - 1000 mm<sup>2</sup>



**K45**  
SERIE

- ▶ Extremely large cross section range up to 1000 mm<sup>2</sup>
- ▶ Hydraulic system with 450 kN crimping force
- ▶ Foot pump with two-stage hydraulics

### Characteristics

- Head with quick coupling
- Manual retract as required
- Hydraulic hose, 2 m

### Suitable for

- 45-series interchangeable dies, wide crimping

### Additional information

- The wide choice of available crimping dies can be found in chapter "Crimping dies" under Series 45.

Technical data		
Crimping force	450 kN	
Crimping range	120 - 1.000 mm <sup>2</sup>	
Operating pressure	max. 700 bar	
Weight	23 kg	
Item	Part No.	
Hydraulic crimping tool with foot pump 120 - 1000 mm <sup>2</sup>	<b>HK45</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Steel carrying case	MKU	196
Accessories	Part No.	Page
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497





## Crimping

Hydraulic crimping heads and crimping systems

### HK 12/2 EL/380 Hydraulic crimping tool with pump, 16 - 400 mm<sup>2</sup>, 400 V



**K13**  
SERIE

- ▶ Large cross section range up to 400 mm<sup>2</sup>
- ▶ C-head with 42 mm jaw opening
- ▶ Suitable for portable use thanks to transport trolley and extremely long cable

#### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- Electronic control with AC motor

#### Suitable for

- 13-series interchangeable dies, wide crimping

#### Additional information

- The wide choice of available crimping dies can be found in chapter "Crimping dies" under Series 13.

Technical data	
Crimping force	120 kN
Crimping range	16 - 400 mm <sup>2</sup>
Version	Three-phase motor 400 V
Rated output	0.55 kW
Motor voltage	360 V - 440 V / 50 Hz
Capacity	0.82 l / min.
Operating pressure	max. 700 bar
Weight	44.5 kg

Item	Part No.
Crimping tool with pump, 16 - 400 mm <sup>2</sup> , 400 V	<b>HK122EL380</b>

Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1	496
Transport trolley for electro-hydraulic pump EHP 2	TW50	

Accessories	Part No.	Page
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3	496

## HK 25/2 EL/380 Hydraulic crimping tool with pump, 16 - 625 mm<sup>2</sup>, 400 V



**K25**  
SERIE

- ▶ Extremely wide cross section range up to 625 mm<sup>2</sup>
- ▶ Crimping head, H-shape
- ▶ Suitable for portable use thanks to transport trolley and extremely long cable

### Characteristics

- Head with quick coupling, 360° rotation when not pressurised
- Electronic control with AC motor

### Suitable for

- 25-series interchangeable dies, wide crimping

### Additional information

- The wide choice of available crimping dies can be found in chapter "Crimping dies" under Series 25.

Technical data	
Crimping force	250 kN
Crimping range	16 - 625 mm <sup>2</sup>
Version	Three-phase motor 400 V
Rated output	0.55 kW
Motor voltage	360 V - 440 V / 50 Hz
Capacity	0.82 l / min.
Operating pressure	max. 700 bar
Weight	45.9 kg

Item	Part No.
Crimping tool with pump, 16 - 625 mm <sup>2</sup> , 400 V	<b>HK252EL380</b>

Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1	496
Transport trolley for electro-hydraulic pump EHP 2	TW50	

Accessories	Part No.	Page
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3	496

# TEN SERIES IN USE - CRIMPING DIES

The Klauke range of crimping dies is unbeatable. We have developed a total of 10 series to suit your requirements. All are set apart by their high durability and highest precision. For optimum crimping results, the crimping surface of the dies are polished. You can count on that: Tools, crimping dies and connection materials from Klauke deliver the perfect electrical connection every time.



## In brief

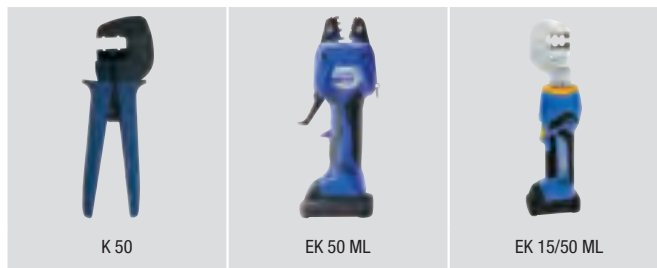
- ▶ Broad range with 10 different crimping dies series
- ▶ Solutions for every material
- ▶ Polished crimping surfaces for optimum crimping results
- ▶ Quickly find the correct die through coloured coatings



Connection material	<b>K50 SERIE</b> 	<b>K4 SERIE</b> 	<b>K5 SERIE</b> 	<b>K18 SERIE</b> 	<b>K22 SERIE</b> 	<b>K13 SERIE</b> 	<b>K15 SERIE</b> 	<b>K25 SERIE</b> 	<b>K45 SERIE</b> 	<b>K100 SERIE</b> 
	-	6-150 mm <sup>2</sup>	6-185 mm <sup>2</sup>	-	6-300 mm <sup>2</sup>	16-300 mm <sup>2</sup>	-	-	-	-
	0.75-25 mm <sup>2</sup>	6-150 mm <sup>2</sup>	6-240 mm <sup>2</sup>	6-185 mm <sup>2</sup>	6-300 mm <sup>2</sup>	16-400 mm <sup>2</sup>	500-630 mm <sup>2</sup>	16-500 mm <sup>2</sup>	-	-
	-	10-70 mm <sup>2</sup>	10-95 mm <sup>2</sup>	10-95 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-150 mm <sup>2</sup>	-	10-150 mm <sup>2</sup>	-	-
	-	10-50 mm <sup>2</sup>	10-50 mm <sup>2</sup>	10-50 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-150 mm <sup>2</sup>	-	16-300 mm <sup>2</sup>	-	-
	1.5-16 mm <sup>2</sup>	1.5-16 mm <sup>2</sup>	-	1.5-16 mm <sup>2</sup>	1.5-16 mm <sup>2</sup>	-	-	-	-	-
<b>VA</b> 	-	0.5-16 mm <sup>2</sup>	-	-	10-50 mm <sup>2</sup>	10-95 mm <sup>2</sup>	-	-	-	-
<b>Ni</b> 	-	0.5-16 mm <sup>2</sup>	-	-	10-50 mm <sup>2</sup>	10-95 mm <sup>2</sup>	-	-	-	-
<b>DIN</b> 	6-25 mm <sup>2</sup>	6-120 mm <sup>2</sup>	6-185 mm <sup>2</sup>	6-185 mm <sup>2</sup>	6-300 mm <sup>2</sup>	10-300 mm <sup>2</sup>	300-625 mm <sup>2</sup>	16-625 mm <sup>2</sup>	120-1000 mm <sup>2</sup>	625-1000 mm <sup>2</sup>
	0.5-10 mm <sup>2</sup>	6-35 mm <sup>2</sup>	10-50 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-150 mm <sup>2</sup>	-	16-240 mm <sup>2</sup>	-	-
	10-16 mm <sup>2</sup>	10-16 mm <sup>2</sup>	-	10-50 mm <sup>2</sup>	10-70 mm <sup>2</sup>	10-95 mm <sup>2</sup>	-	10-150 mm <sup>2</sup>	-	-
	-	10 sm* -150 se**/ 120 sm*	10 sm* -300 se**/ 240 sm*	10 sm* -300 se**/ 240 sm*	10 sm* -300 se**/ 240 sm*	10 sm* -300 sm*	-	10 sm* -300 sm*	-	-
<b>Al</b> 	-	10-70 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-185 mm <sup>2</sup>	10-300 mm <sup>2</sup>	10-300 mm <sup>2</sup>	400-500 mm <sup>2</sup>	10-500 mm <sup>2</sup>	150-500 mm <sup>2</sup>	Upon request
<b>Aldrey</b> 	-	25-50 mm <sup>2</sup>	25-95 mm <sup>2</sup>	25-95 mm <sup>2</sup>	25-185 mm <sup>2</sup>	25-185 mm <sup>2</sup>	-	25-300 mm <sup>2</sup>	150-300 mm <sup>2</sup>	Upon request
<b>Al/St</b> 	-	-	-	-	4-20 (St) 25-120 (Al)	4 (St)-120 (Al)	-	4 (St)-120 (Al)	-	Upon request
<b>Al/Cu</b> 	-	10-70 mm <sup>2</sup>	10-150 mm <sup>2</sup>	10-185 mm <sup>2</sup>	10-300 mm <sup>2</sup>	10-300 mm <sup>2</sup>	400-500 mm <sup>2</sup>	10-500 mm <sup>2</sup>	150-500 mm <sup>2</sup>	Upon request
	-	4-35 mm <sup>2</sup>	4-35 mm <sup>2</sup>	4-50 mm <sup>2</sup>	4-70 mm <sup>2</sup>	10-70 mm <sup>2</sup>	-	10-185 mm <sup>2</sup>	-	-
	-	-	-	70 mm <sup>2</sup>	70 mm <sup>2</sup>	70-120 mm <sup>2</sup>	-	70-120 mm <sup>2</sup>	-	-
	0.14-50 mm <sup>2</sup>	10-50 mm <sup>2</sup>	10-95 mm <sup>2</sup>	4-95 mm <sup>2</sup>	10-240 mm <sup>2</sup>	25-240 mm <sup>2</sup>	-	25-240 mm <sup>2</sup>	-	-
	-	2x4- 2x16 mm <sup>2</sup>	2x4- 2x16 mm <sup>2</sup>	2x4- 2x16 mm <sup>2</sup>	2x4- 2x16 mm <sup>2</sup>	-	-	-	-	-
	0.1-16 mm <sup>2</sup>	-	-	-	-	-	-	-	-	-
	0.25-6 mm <sup>2</sup>	-	-	-	-	-	-	-	-	-
<b>BNC plug</b>	RG 58, RG 59, RG 62, RG 71	-	-	-	-	-	-	-	-	-
<b>Turned pin receptacle and pin connectors</b>	0.1-4 mm <sup>2</sup>	-	-	-	-	-	-	-	-	-

\* Sector multi-stranded \*\* Sector single-stranded

# K50 SERIE



## Crimping dies R 50, indent crimping



**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type

Cross section mm <sup>2</sup>	For item	Part No.
0.75 - 2.5	91R, 92R, 93R	<b>R501</b>
4 - 10	94R, 95R, 2R	<b>R502</b>

## Crimping dies D 50

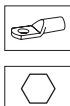


**Suitable for**

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.
6 - 16	<b>D504</b>
16 - 25	<b>D505</b>

## Crimping dies R 50, hexagonal crimping **NEW**



**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type

Cross section mm <sup>2</sup>	Part No.
6 - 16	<b>R504</b>
16 - 25	<b>R505</b>

## Crimping dies Q 50



**Suitable for**

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
0.5 - 10	<b>Q501</b>

## Crimping dies M 50



**Suitable for**

- Tubular cable lugs and connectors for solid conductors

Cross section mm <sup>2</sup>	Part No.
1.5 - 4	<b>M50154</b>
6 - 10	<b>M50610</b>

## Crimping dies AE 50

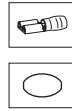


**Suitable for**

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.
0.14 - 10	<b>AE501</b>
10 - 25	<b>AE502</b>
35 - 50	<b>AE503</b>

### Crimping dies IS 50, single crimping

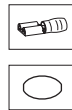


**Suitable for**

- Insulated cable connections, single crimping

Cross section mm <sup>2</sup>	Part No.	for item
10 - 16	<b>IS5072</b>	ST1716IS, ST1717IS, 652C5, 652C6, 653C6
0.5 - 2.5	<b>IS504</b>	670 WS, 680 WS
4 - 6	<b>IS505</b>	700 WS

### Crimping dies IS 50, double crimping

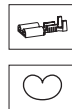


**Suitable for**

- Insulated cable connections, double crimping

Cross section mm <sup>2</sup>	Part No.	for item
0.5 - 6	<b>IS501</b>	
0.1 - 1	<b>IS503</b>	8201-8201B

### Crimping dies CR 50



**Suitable for**

- Non-insulated receptacles

Cross section mm <sup>2</sup>	Part No.	for item	Tab Width
0.25 - 6	<b>CR501</b>		2.8 / 6.3
0.5 - 2.5	<b>CR502</b>		4.8
0.5 - 1	<b>CR503</b>	38201, 38201A	2.8
0.5 - 2.5	<b>CR504</b>	3720, 3735	6.3
0.5 - 1.5	<b>CR505</b>	3725	6.3

### Crimping dies BNC 50



**Suitable for**

- Stud and shielded sleeves
- BNC plugs for coax cable RG 58, 59, 62 and 71

Part No.
<b>BNC501</b>

### Crimping dies SB 50



**Suitable for**

- Turned pin receptacles
- Pin connectors

Cross section mm <sup>2</sup>	Part No.
0.1 - 1; 1.5 - 2.5; 4	<b>SB501</b>



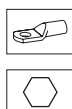


K 35/4

EK 35/4 ML

EK 35/4

### Crimping dies HR 4



**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
6	<b>HR46</b>	5
10	<b>HR410</b>	5
16	<b>HR416</b>	5
25	<b>HR425</b>	5
35	<b>HR435</b>	5
50	<b>HR450</b>	5
70	<b>HR470</b>	5
95	<b>HR495</b>	5
120	<b>HR4120</b>	5
150	<b>HR4150</b>	5

### Crimping dies HIS 4

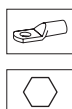


**Suitable for**

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HIS410</b>	5
16	<b>HIS416</b>	5
25	<b>HIS425</b>	5
35	<b>HIS435</b>	5
50	<b>HIS450</b>	5
70	<b>HIS470</b>	5

### Crimping die set, 6 - 150 mm<sup>2</sup> HR 4 in plastic case, 11-pce.



**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Part No.
<b>HR4SET</b>

### Crimping dies blue connection® HB 4



► Accurate assignment of crimping tool/crimping die through colour-coding system

#### Suitable for

- Tubular cable lugs and connectors, blue connection® for compacted conductors acc. to DIN EN 60228 Class 2

Cross section mm <sup>2</sup>	Part No.	Crimp width mm	Number of crimps
6	<b>HB46</b>	9	1
10	<b>hb410</b>	9	1
16	<b>hb416</b>	9	1
25	<b>hb425</b>	9	1
35	<b>HB435</b>	9	1
50	<b>HB450</b>	9	1
70	<b>hb470</b>	5	2
95	<b>hb495</b>	5	2
120	<b>hb4120</b>	5	2
150	<b>hb4150</b>	5	2

### Crimping die set 6 - 150 mm<sup>2</sup> blue connection® HB 4 in plastic case, 11-pce.

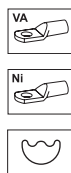


#### Suitable for

- Tubular cable lugs and connectors, blue connection® for compacted conductors acc. to DIN EN 60228 Class 2

Part No.
<b>HB4SET</b>

### Crimping dies HN 4, Double indent crimping

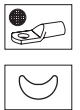


#### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
4 - 6	<b>HN446</b>
10	<b>HN410</b>
16	<b>HN416</b>

### Crimping dies HF 4

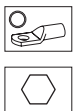


#### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>HF410</b>
16	<b>HF416</b>
25	<b>HF425</b>
35	<b>HF435</b>
50	<b>HF450</b>

### Crimping dies HM 4

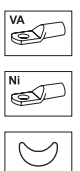


#### Suitable for

- Tubular cable lugs and connectors for solid conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
1.5 - 2.5; 4	<b>HM4154</b>	5
6 - 10	<b>HM4610</b>	5
16	<b>HM416</b>	5

### Crimping dies HN 4, Indent crimping



#### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
0.5 - 1.0	<b>HN4051</b>
1.5 - 2.5	<b>HN41525</b>





## Crimping dies HD 4



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
6	<b>HD46</b>	5	5
10	<b>HD410</b>	6	5
16	<b>HD416</b>	8	5
25	<b>HD425</b>	10	5
35	<b>HD435</b>	12	5
50	<b>HD450</b>	14	5
70	<b>HD470</b>	16	5
95	<b>HD495</b>	18	5
120	<b>HD4120</b>	20	5

## Crimping die set, 6 - 120 mm<sup>2</sup> HD 4 in plastic case, 10-pce.



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Part No.  
**HD4SET**

## Crimping dies HQ 4



### Suitable for

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
6	<b>HQ46</b>
10	<b>HQ410</b>
16	<b>HQ416</b>
25	<b>HQ425</b>
35	<b>HQ435</b>

## Crimping dies HISQ 4

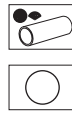


### Suitable for

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>HISQ410</b>
16	<b>HISQ416</b>

### Crimping dies HRU 4

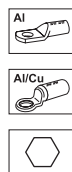


**Suitable for**

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> se	Nominal cross section mm <sup>2</sup> sm	Part No.	Conductor dia. mm	Pre-rounding width mm
	10	<b>HRU410</b>	4.1	9
	16	<b>HRU416</b>	5.1	9
35	25	<b>HRU43525</b>	6.3	9
50	35	<b>HRU45035</b>	7.5	9
70	50	<b>HRU47050</b>	9.0	9
95	70	<b>HRU49570</b>	10.5	9
120	95	<b>HRU412095</b>	12.5	9
150	120	<b>HRU4150120</b>	14.0	9

### Crimping dies HA 4

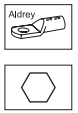


**Suitable for**

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>HA410</b>	10	7
16 - 25	<b>HA41625</b>	12	7
35	<b>HA435</b>	14	7
50	<b>HA450</b>	16	7
70	<b>HA470</b>	18	7

### Crimping dies HAD 4

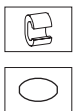


**Suitable for**

- Compression joints for full tension connections of Aldrey conductors according to DIN EN 50182

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25	<b>HAD425</b>	12	7
35	<b>HAD435</b>	14	7
50	<b>HAD450</b>	16	7

### Crimping dies HC 4 / HMC 4



**Suitable for**

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>HC416</b>	5
25	<b>HC425</b>	5
4 - 4	<b>HMC44</b>	5
10 - 10	<b>HMC410</b>	5
10 - 16 10 - 25 35 - 35	<b>HMC435</b>	5



## Crimping dies HAE 4



### Suitable for

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HAE410</b>	10
16	<b>HAE416</b>	10
25	<b>HAE425</b>	10
35	<b>HAE435</b>	10
50	<b>HAE450</b>	10

## Crimping dies HAES 4



### Suitable for

- Cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HAES410</b>	10
16	<b>HAES416</b>	10
25	<b>HAES425</b>	10
35	<b>HAES435</b>	10
50	<b>HAES450</b>	10

## Crimping dies HZAE 4



### Suitable for

- Twin-cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
2 x 4	<b>HZAE44</b>	10
2 x 6	<b>HZAE46</b>	10
2 x 10	<b>HZAE410</b>	10
2 x 16	<b>HZAE416</b>	10

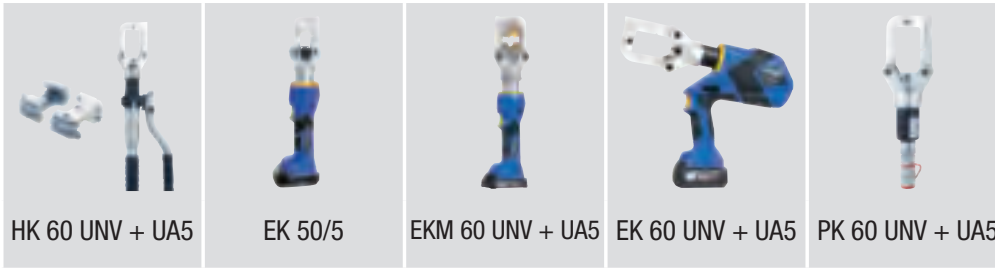
## Crimping dies HZAES 4



### Suitable for

- Twin-cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
2 x 4	<b>HZAES44</b>	10
2 x 6	<b>HZAES46</b>	10
2 x 10	<b>HZAES410</b>	10
2 x 16	<b>HZAES416</b>	10



## K5 SERIE

### Crimping dies HR 5

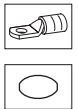


#### Suitable for

- Tubular cable lugs and connectors - Cu, standard type

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
6 + 35	<b>HR5635</b>	5
10 + 50	<b>HR51050</b>	5
16 + 70	<b>HR51670</b>	5
25 + 95	<b>HR52595</b>	5
120	<b>HR5120</b>	5
150	<b>HR5150</b>	5
185	<b>HR5185</b>	5
240	<b>HR5240</b>	5

### Crimping dies HIS 5

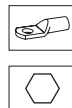


#### Suitable for

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HIS510</b>	5
16	<b>HIS516</b>	5
25	<b>HIS525</b>	5
35	<b>HIS535</b>	5
50	<b>HIS550</b>	5
70	<b>HIS570</b>	5
95	<b>HIS595</b>	5

### Crimping die set, 6 - 240 mm<sup>2</sup> HR 5 in plastic case, 9-pce.



#### Suitable for

- Tubular cable lugs and connectors - Cu, standard type

Part No.
<b>HR5SET</b>

### Crimping dies blue connection® HB 5



► Accurate assignment of crimping tool/crimping die through colour-coding system

#### Suitable for

- Tubular cable lugs and connectors, blue connection® for compacted conductors acc. to DIN EN 60228 Class 2

Cross section mm <sup>2</sup>	Part No.	Crimp width mm	Number of crimps
6 + 35	<b>HB5635</b>	9	1
10 + 50	<b>HB51050</b>	9	1
16 + 70	<b>HB51670</b>	9	1
25 + 95	<b>HB52595</b>	9	1
120	<b>HB5120</b>	5	2
150	<b>HB5150</b>	5	2
185	<b>HB5185</b>	5	2



### Crimping die set, 6 - 185 mm<sup>2</sup> blue connection® HB 5 in plastic case, 8-pce.



**Suitable for**

- Tubular cable lugs and connectors, blue connection® for compacted conductors acc. to DIN EN 60228 Class 2

Part No.
<b>HB5SET</b>

### Crimping dies HF 5



**Suitable for**

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>HF510</b>
16	<b>HF516</b>
25	<b>HF525</b>
35	<b>HF535</b>
50	<b>HF550</b>

### Crimping dies HD 5



**Suitable for**

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
6 + 35	<b>HD5635</b>	5 + 12	5
10 + 50	<b>HD51050</b>	6 + 14	5
16 + 70	<b>HD51670</b>	8 + 16	5
25 + 95	<b>HD52595</b>	10 + 18	5
120	<b>HD5120</b>	20	5
150	<b>HD5150</b>	22	5
185	<b>HD5185</b>	25	5

### Crimping die set, 6 - 185 mm<sup>2</sup> HD 5 in plastic case, 8-pce.



**Suitable for**

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Part No.
<b>HD5SET</b>

### Crimping dies HQ 5

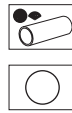


**Suitable for**

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu

Cross section mm <sup>2</sup>	Part No.
10	<b>HQ510</b>
16	<b>HQ516</b>
25	<b>HQ525</b>
35	<b>HQ535</b>
50	<b>HQ550</b>

### Crimping dies HRU 5

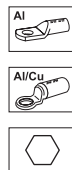


#### Suitable for

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> se	Nominal cross section mm <sup>2</sup> sm	Part No.	Conductor dia. mm	Pre-rounding width mm
	10	<b>HRU510</b>	4.1	12
	16	<b>HRU516</b>	5.1	12
35	25	<b>HRU53525</b>	6.3	12
50	35	<b>HRU55035</b>	7.5	12
70	50	<b>HRU57050</b>	9	12
95	70	<b>HRU59570</b>	10.5	12
120	95	<b>HRU512095</b>	12.5	12
150	120	<b>HRU5150120</b>	14	12
185	150	<b>HRU5185150</b>	15.7	12
240	185	<b>HRU5240185</b>	17.5	12
300	240	<b>HRU5300240</b>	20.3	12

### Crimping dies HA 5

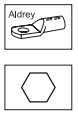


#### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>HA510</b>	10	7
16 - 25	<b>HA51625</b>	12	7
35	<b>HA535</b>	14	7
50	<b>HA550</b>	16	7
70	<b>HA570</b>	18	7
95 - 120	<b>HA595120</b>	22	7
150	<b>HA5150</b>	25	7

### Crimping dies HAD 5

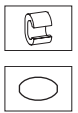


#### Suitable for

- Compression joints for full tension connections of Aldrey conductors according to DIN EN 50182

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25	<b>HAD525</b>	12	7
35	<b>HAD535</b>	14	7
50	<b>HAD550</b>	16	7
70	<b>HAD570</b>	18	7
95	<b>HAD595</b>	20	7

### Crimping dies HC 5 / HMC 5



#### Suitable for

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>HC516</b>	5
25	<b>HC525</b>	5
35	<b>HC535</b>	5
4	<b>HMC54</b>	5
10	<b>HMC510</b>	5
35	<b>HMC535</b>	5



## Crimping dies HAE 5



### Suitable for

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HAE510</b>	20
16	<b>HAE516</b>	20
25	<b>HAE525</b>	20
35	<b>HAE535</b>	20
50	<b>HAE550</b>	20
70	<b>HAE570</b>	20
95	<b>HAE595</b>	20

## Crimping dies HAES 5



### Suitable for

- Cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>HAES510</b>	20
16	<b>HAES516</b>	20
25	<b>HAES525</b>	20
35	<b>HAES535</b>	20
50	<b>HAES550</b>	20
70	<b>HAES570</b>	20
95	<b>HAES595</b>	20

## Crimping dies HZAE 5



### Suitable for

- Twin-cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
2 x 4	<b>HZAE54</b>	20
2 x 6	<b>HZAE56</b>	20
2 x 10	<b>HZAE510</b>	20
2 x 16	<b>HZAE516</b>	20

## Crimping dies HZAES 5



### Suitable for

- Twin-cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
2 x 4	<b>HZAES54</b>	20
2 x 6	<b>HZAES56</b>	20
2 x 10	<b>HZAES510</b>	20
2 x 16	<b>HZAES516</b>	20



## K18 SERIE

### Crimping dies R



#### Suitable for

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

#### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
6	<b>R6</b>	5
10	<b>R10</b>	5
16	<b>R16</b>	5
25	<b>R25</b>	5
35	<b>R35</b>	5
50	<b>R50</b>	5
70	<b>R70</b>	5
95	<b>R95</b>	5
120	<b>R120</b>	5
150	<b>R150</b>	5
185	<b>R185</b>	5
240	<b>R240</b>	5

### Crimping dies IS



#### Suitable for

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>IS10</b>	5
16	<b>IS16</b>	5
25	<b>IS25</b>	5
35	<b>IS35</b>	5
50	<b>IS50</b>	5
70	<b>IS70</b>	5
95	<b>IS95</b>	5

### Crimping dies F



#### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>F10</b>
16	<b>F16</b>
25	<b>F25</b>
35	<b>F35</b>
50	<b>F50</b>





## Crimping dies M



### Suitable for

- Tubular cable lugs and connectors for solid conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
1.5 - 4	<b>M154</b>	5
6 - 10	<b>M610</b>	5
16	<b>M16</b>	5

## Crimping dies D



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
6	<b>D6</b>	5	5
10	<b>D10</b>	6	5
16	<b>D16</b>	8	5
25	<b>D25</b>	10	5
35	<b>D35</b>	12	5
50	<b>D50</b>	14	5
70	<b>D70</b>	16	5
95	<b>D95</b>	18	5
120	<b>D120</b>	20	5
150	<b>D150</b>	22	5
185	<b>D185</b>	25	5

## Crimping dies Q



### Suitable for

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
10	<b>Q10</b>
16	<b>Q16</b>
25	<b>Q25</b>
35	<b>Q35</b>
50	<b>Q50</b>
70	<b>Q70</b>

## Crimping dies ISQ

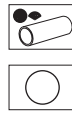
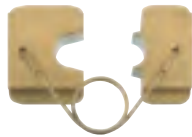


### Suitable for

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>ISQ10</b>
16	<b>ISQ16</b>
25	<b>ISQ25</b>
35	<b>ISQ35</b>
50	<b>ISQ50</b>

## Crimping dies RU

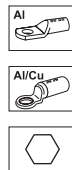


### Suitable for

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> se	Nominal cross section mm <sup>2</sup> sm	Part No.	Conductor dia. mm	Pre-rounding width mm
	10	<b>RU10</b>	4.1	19.5
	16	<b>RU16</b>	5.1	19.5
35	25	<b>RU3525</b>	6.3	19.5
50	35	<b>RU5035</b>	7.5	19.5
70	50	<b>RU7050</b>	9.0	19.5
95	70	<b>RU9570</b>	10.5	19.5
120	95	<b>RU12095</b>	12.5	19.5
150	120	<b>RU150120</b>	14.0	19.5
185	150	<b>RU185150</b>	15.8	19.5
240	185	<b>RU240185</b>	17.5	19.5
300	240	<b>RU300240</b>	20.3	19.5

## Crimping dies A



### Suitable for

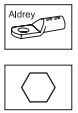
- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>A10</b>	10	7
16 - 25	<b>A1625</b>	12	7
35	<b>A35</b>	14	7
50	<b>A50</b>	16	7
70	<b>A70</b>	18	7
95 - 120	<b>A95120</b>	22	7
150	<b>A150</b>	25	7
185	<b>A185</b>	28	7

## Crimping dies AD



### Suitable for

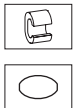
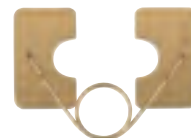
- Compression joints for full tension connections of Aldrey conductors according to DIN EN 50182

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25	<b>AD25</b>	12	7
35	<b>AD35</b>	14	7
50	<b>AD50</b>	16	7
70	<b>AD70</b>	18	7
95	<b>AD95</b>	20	7

## Crimping dies C / MC



### Suitable for

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>C16</b>	5
25	<b>C25</b>	5
35	<b>C35</b>	5
50	<b>C50</b>	5
4 - 4	<b>MC4</b>	5
10 - 10	<b>MC10</b>	5
10 - 16 10 - 25 10 - 35	<b>MC35</b>	5



## Crimping dies AE

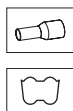


### Suitable for

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
4	<b>AE4</b>	20
6	<b>AE6</b>	20
10	<b>AE10</b>	20
16	<b>AE16</b>	20
25	<b>AE25</b>	20
35	<b>AE35</b>	20
50	<b>AE50</b>	20
70	<b>AE70</b>	20
95	<b>AE95</b>	20

## Crimping dies AES

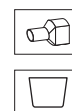


### Suitable for

- Cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>AES10</b>	20
16	<b>AES16</b>	20
25	<b>AES25</b>	20
35	<b>AES35</b>	20
50	<b>AES50</b>	20
70	<b>AES70</b>	20
95	<b>AES95</b>	20
4	<b>AE4</b>	20
6	<b>AE6</b>	20

## Crimping dies ZAE

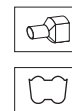


### Suitable for

- Twin-cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
2 x 4	<b>ZAE4</b>	20
2 x 6	<b>ZAE6</b>	20
2 x 10	<b>ZAE10</b>	20
2 x 16	<b>ZAE16</b>	20

## Crimping dies ZAES



### Suitable for

- Twin-cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
4	<b>ZAES4</b>	20
6	<b>ZAES6</b>	20
10	<b>ZAES10</b>	20
16	<b>ZAES16</b>	20

## K22 SERIE



K 22

HK 60/22

HK 60 UNV + UA22

EK 60/22

EKM 60/22



EKM 60 UNV + UA22



EK 60 UNV + UA22



THK 22



PK 22



PK 60 UNV + UA22

### Crimping dies R 22

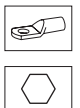


#### Suitable for

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
6	R226	5
10	R2210	5
16	R2216	5
25	R2225	5
35	R2235	5
50	R2250	5
70	R2270	5
95	R2295	5
120	R22120	5
150	R22150	5
185	R22185	5
240	R22240	5
300	R22300	5

### Crimping die set, 6 - 300 mm<sup>2</sup> R 22 in plastic case, 14-pce.

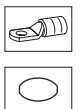


#### Suitable for

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Part No.
R22SET

### Crimping dies IS 22



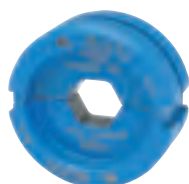
#### Suitable for

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	IS2210	5
16	IS2216	5
25	IS2225	5
35	IS2235	5
50	IS2250	5
70	IS2270	5
95	IS2295	5
120	IS22120	5
150	IS22150	5



## Crimping dies, blue connection® B 22



► Accurate assignment of crimping tool/crimping die through colour-coding system

### Suitable for

- Tubular cable lugs and connectors, blue connection® for compacted conductors acc. to DIN EN 60228 Class 2

Cross section mm <sup>2</sup>	Part No.	Crimp width mm	Number of crimps
6	<b>B226</b>	9	1
10	<b>B2210</b>	9	1
16	<b>B2216</b>	9	1
25	<b>B2225</b>	9	1
35	<b>B2235</b>	9	1
50	<b>B2250</b>	9	1
70	<b>B2270</b>	9	1
95	<b>B2295</b>	9	1
120	<b>B22120</b>	9	1
150	<b>B22150</b>	9	1
185	<b>B22185</b>	5	2
240	<b>B22240</b>	5	2
300	<b>B22300</b>	5	3

**Crimping die set 6 - 300 mm<sup>2</sup>, blue connection® B22 in plastic case, 14-pce.**



### Suitable for

- Tubular cable lugs and connectors, blue connection® for compacted conductors acc. to DIN EN 60228 Class 2

Part No.
<b>B22SET</b>

## Crimping dies F 22



### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>F2210</b>
16	<b>F2216</b>
25	<b>F2225</b>
35	<b>F2235</b>
50	<b>F2250</b>
70	<b>F2270</b>

## Crimping dies M 22



### Suitable for

- Tubular cable lugs and connectors for solid conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
1.5 - 4	<b>M22154</b>	5
6 - 10	<b>M22610</b>	5
16	<b>M2216</b>	5

## Crimping dies N 22



### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
10	<b>N2210</b>
16	<b>N2216</b>
25	<b>N2225</b>
35	<b>N2235</b>
50	<b>N2250</b>

### Crimping dies D 22



**Suitable for**

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
6	<b>D226</b>	5	5
10	<b>D2210</b>	6	5
16	<b>D2216</b>	8	5
25	<b>D2225</b>	10	5
35	<b>D2235</b>	12	5
50	<b>D2250</b>	14	5
70	<b>D2270</b>	16	5
95	<b>D2295</b>	18	5
120	<b>D22120</b>	20	5
150	<b>D22150</b>	22	5
185	<b>D22185</b>	25	5
240	<b>D22240</b>	28	5
300	<b>D22300</b>	32	5

### Crimping die set, 6-300 mm<sup>2</sup> D 22 in plastic case, 14-pce.

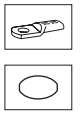


**Suitable for**

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

Part No.
<b>D22SET</b>

### Crimping dies DP 22

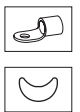


**Suitable for**

- Double compression cable lugs

Cross section mm <sup>2</sup>	Part No.	Code
2 x 50	<b>DP2250</b>	22 DP
2 x 70	<b>DP2270</b>	24 DP

### Crimping dies Q 22

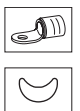


**Suitable for**

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
10	<b>Q2210</b>
16	<b>Q2216</b>
25	<b>Q2225</b>
35	<b>Q2235</b>
50	<b>Q2250</b>
70	<b>Q2270</b>

### Crimping dies ISQ 22

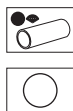


**Suitable for**

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>ISQ2210</b>
16	<b>ISQ2216</b>
25	<b>ISQ2225</b>
35	<b>ISQ2235</b>
50	<b>ISQ2250</b>
70	<b>ISQ2270</b>

## Crimping dies RU 22

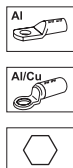


### Suitable for

- Pre-rounding of sector-shaped Al- and Cu-conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> se	Nominal cross section mm <sup>2</sup> sm	Part No.	Conductor dia. mm	Pre-rounding width mm
	10	<b>RU2210</b>	4.1	19.5
	16	<b>RU2216</b>	5.1	19.5
35	25	<b>RU223525</b>	6.3	19.5
50	35	<b>RU225035</b>	7.5	19.5
70	50	<b>RU227050</b>	9.0	19.5
95	70	<b>RU229570</b>	10.5	19.5
120	95	<b>RU2212095</b>	12.5	19.5
150	120	<b>RU22150120</b>	14.0	19.5
185	150	<b>RU22185150</b>	15.8	19.5
240	185	<b>RU22240185</b>	17.5	19.5
300	240	<b>RU22300240</b>	20.3	19.5

## Crimping dies A 22



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>A2210</b>	10	7
16 - 25	<b>A221625</b>	12	7
35	<b>A2235</b>	14	7
50	<b>A2250</b>	16	7
70	<b>A2270</b>	18	7
95 - 120	<b>A2295120</b>	22	7
150	<b>A22150</b>	25	7
185	<b>A22185</b>	28	7
240	<b>A22240</b>	32	5
300	<b>A22300</b>	34	5

## Crimping die set, 10-300 mm<sup>2</sup> A 22 in plastic case, 11-pce.



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Part No.
<b>A22SET</b>

## Crimping dies AD 22



### Suitable for

- Compression joints for full tension connections of Aldrey conductors according to DIN EN 50182
- Al-conductor acc. to DIN EN 50182, 120 - 185 mm<sup>2</sup>

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25	<b>AD2225</b>	12	7
35	<b>AD2235</b>	14	7
50	<b>AD2250</b>	16	7
70	<b>AD2270</b>	18	7
95	<b>AD2295</b>	20	7
120	<b>AD22120</b>	25	7
150 - 185	<b>AD22150185</b>	28	7

### Crimping dies AST 22



**Suitable for**

- Compression joints acc. to DIN 48085, part 3 for Al-/St-cable acc. to DIN EN 50182
- Aluminium crimping

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25 - 4	<b>AST2225</b>	12	7
35 - 6	<b>AST2235</b>	14	7
50 - 8	<b>AST2250</b>	16	7
70 - 12	<b>AST2270</b>	18	7
95 - 15	<b>AST2295</b>	22	7
120 - 20	<b>AST22120</b>	25	7

### Crimping dies ST 22

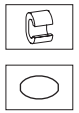


**Suitable for**

- Compression joints acc. to DIN 48085, part 3 for Al-/St-cable acc. to DIN EN 50182
- Steel crimping

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25 - 4 35 - 6	<b>ST2246</b>	6	5
50 - 8	<b>ST228</b>	7	5
70 - 12 95 - 15	<b>ST221215</b>	9	5
120 - 20	<b>ST2220</b>	13	5

### Crimping dies C 22 / MC 22

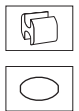


**Suitable for**

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>C2216</b>	5
25	<b>C2225</b>	5
35	<b>C2235</b>	5
50	<b>C2250</b>	5
70	<b>C2270</b>	5
4 - 4	<b>MC224</b>	5
10 - 10	<b>MC2210</b>	5
10 - 1 10 - 25 35 - 35	<b>MC2235</b>	5
50	<b>MC2250</b>	5

### Crimping dies H 22



**Suitable for**

- H-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
70	<b>H2270</b>	5





## Crimping dies AES 22



### Suitable for

- Cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

### Additional information

- \* = Not suitable for THK 22 due to opening width

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	<b>AES2210S</b>	21
16	<b>AES2216S</b>	21
25	<b>AES2225S</b>	21
35	<b>AES2235S</b>	21
50	<b>AES2250S</b>	21
70	<b>AES2270S</b>	21
95	<b>AES2295S</b>	21
120	<b>AES22120S</b>	21
150	<b>AES22150S</b>	21
185 *	<b>AES22185S</b>	21
240 *	<b>AES22240S</b>	21

## Crimping dies ZAE 22



### Suitable for

- Twin-cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
2 x 4	<b>ZAE224</b>	21
2 x 6	<b>ZAE226</b>	21
2 x 10	<b>ZAE2210</b>	21
2 x 16	<b>ZAE2216</b>	21

## Crimping dies ZAES 22



### Suitable for

- Twin-cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
2 x 4	<b>ZAES224</b>	21
2 x 6	<b>ZAES226</b>	21
2 x 10	<b>ZAES2210</b>	21
2 x 16	<b>ZAES2216</b>	21



**K13  
SERIE**

**Crimping dies HR 13**



**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

**Technical instructions**

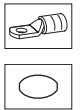
- For connectors, refer to the installation instructions in the technical appendix, page i-8

**Additional information**

- \* = Narrow crimping (crimp 5 x)

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	HR1316	10
25	HR1325	10
35	HR1335	10
50	HR1350	13
70	HR1370	13
95	HR1395	14
120	HR13120	14
150	HR13150	14
185	HR13185	11
240	HR13240	11
300	HR13300	11
400 *	HR13400	5

**Crimping dies HIS 13**



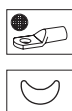
**Suitable for**

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	HIS1310	5
16	HIS1316	5
25	HIS1325	5
35	HIS1335	5
50	HIS1350	5
70	HIS1370	5
95	HIS1395	5
120	HIS13120	5
150	HIS13150	5



## Crimping dies HF 13



### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
10	<b>HF1310</b>
16	<b>HF1316</b>
25	<b>HF1325</b>
35	<b>HF1335</b>
50	<b>HF1350</b>
70	<b>HF1370</b>
95	<b>HF1395</b>
120	<b>HF13120</b>
150	<b>HF13150</b>

## Crimping dies HN 13, Double indent crimping

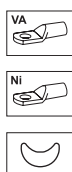


### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
10	<b>HN1310</b>
16	<b>HN1316</b>
25	<b>HN1325</b>
35	<b>HN1335</b>
50	<b>HN1350</b>

## Crimping dies HN 13, Indent crimping



### Suitable for

- Tubular cable lugs and connectors - Ni
- Tubular cable lugs and connectors - stainless steel

Cross section mm <sup>2</sup>	Part No.
70	<b>HN1370</b>
95	<b>HN1395</b>

## Crimping dies HD 13



### Suitable for

- Compression cable lugs to DIN 46235 - Cu
- Compression joints to DIN 46267, part 1 - Cu

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

### Additional information

- \* = Narrow crimping (crimp 5 x)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>HD1310</b>	6	10
16	<b>HD1316</b>	8	10
25	<b>HD1325</b>	10	10
35	<b>HD1335</b>	12	10
50	<b>HD1350</b>	14	13
70	<b>HD1370</b>	16	13
95	<b>HD1395</b>	18	14
120	<b>HD13120</b>	20	14
150	<b>HD13150</b>	22	10
185	<b>HD13185</b>	25	10
240	<b>HD13240</b>	28	10
300 *	<b>HD13300</b>	32	7

## Crimping dies HDP 13



### Suitable for

- Double compression cable lugs

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
2 x 50	<b>HDP1350</b>	22 DP	12
2 x 70	<b>HDP1370</b>	24 DP	12
2 x 95	<b>HDP1395</b>	29 DP	12
2 x 120	<b>HDP13120</b>	32 DP	12

### Crimping dies HQ 13

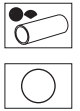


**Suitable for**

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
10	<b>HQ1310</b>
16	<b>HQ1316</b>
25	<b>HQ1325</b>
35	<b>HQ1335</b>
50	<b>HQ1350</b>
70	<b>HQ1370</b>
95	<b>HQ1395</b>
120	<b>HQ13120</b>
150	<b>HQ13150</b>

### Crimping dies HRU 13



**Suitable for**

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> se	Nominal cross section mm <sup>2</sup> sm	Part No.	Conductor dia. mm	Pre-rounding width mm
	10	<b>HRU1310</b>	4.1	35
	16	<b>HRU1316</b>	5.1	35
35	25	<b>HRU133525</b>	6.3	35
50	35	<b>HRU135035</b>	7.5	35
70	50	<b>HRU137050</b>	9.0	35
95	70	<b>HRU139570</b>	10.5	35
120	95	<b>HRU1312095</b>	12.5	35
150	120	<b>HRU13150120</b>	14.0	35
185	150	<b>HRU13185150</b>	15.8	35
240	185	<b>HRU13240185</b>	17.5	35
300	240	<b>HRU13300240</b>	20.3	35
	300	<b>HRU13300SM</b>	22.5	35

### Crimping dies HISQ 13



**Suitable for**

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>HISQ1310</b>
16	<b>HISQ1316</b>
25	<b>HISQ1325</b>
35	<b>HISQ1335</b>
50	<b>HISQ1350</b>
70	<b>HISQ1370</b>
95	<b>HISQ1395</b>

## Crimping dies HA 13



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>HA1310</b>	10	12
16 - 25	<b>HA131625</b>	12	12
35	<b>HA1335</b>	14	12
50	<b>HA1350</b>	16	12
70	<b>HA1370</b>	18	12
95 - 120	<b>HA1395120</b>	22	14
150	<b>HA13150</b>	25	14
185	<b>HA13185</b>	28	14
240	<b>HA13240</b>	32	17
300	<b>HA13300</b>	34	17

## Crimping dies HAD 13



### Suitable for

- Compression joints for full tension connections of Aldrey conductors according to DIN EN 50182
- Al-conductor acc. to DIN EN 50182, 120 - 185 mm<sup>2</sup>

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25	<b>HAD1325</b>	12	12
35	<b>HAD1335</b>	14	12
50	<b>HAD1350</b>	16	12
70	<b>HAD1370</b>	18	12
95	<b>HAD1395</b>	20	14
120	<b>HAD13120</b>	25	14
150 - 185	<b>HAD13150185</b>	28	14

## Crimping dies HAST 13



### Suitable for

- Compression joints acc. to DIN 48085, part 3 for Al-/St-cable acc. to DIN EN 50182
- Aluminium crimping

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25 - 4	<b>HAST1325</b>	12	12
35 - 6	<b>HAST1335</b>	14	12
50 - 8	<b>HAST1350</b>	16	12
70 - 12	<b>HAST1370</b>	18	12
95 - 15	<b>HAST1395</b>	22	14
120 - 20	<b>HAST13120</b>	25	14

## Crimping dies HST 13



### Suitable for

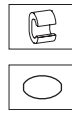
- Compression joints acc. to DIN 48085, part 3 for Al-/St-cable acc. to DIN EN 50182
- Steel crimping

### Technical instructions

- For connectors, refer to the installation instructions in the technical appendix, page i-8

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25 - 4	<b>HST1346</b>	6	12
35 - 6			
50 - 8	<b>HST138</b>	7	12
70 - 12	<b>HST131215</b>	9	12
95 - 15			
120 - 20	<b>HST1320</b>	13	12

### Crimping dies HC 13 / HMC 13



**Suitable for**

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>HC1316</b>	16
25	<b>HC1325</b>	17
35	<b>HC1335</b>	20
50	<b>HC1350</b>	20
70	<b>HC1370</b>	20
10 - 10	<b>HMC1310</b>	13
10 - 16	<b>HMC1335</b>	18
10 - 25		
35 - 35		
25 - 50	<b>HMC1350</b>	20
50 - 50		
35 - 70	<b>HMC1370</b>	20

### Crimping dies HAH 13

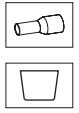


**Suitable for**

- H-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
70	<b>HAH1370</b>	30
95	<b>HAH1395</b>	30
120	<b>HAH13120</b>	20

### Crimping dies HAE 13

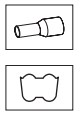


**Suitable for**

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
25	<b>HAE1325</b>	20
35	<b>HAE1335</b>	20
50	<b>HAE1350</b>	26
70	<b>HAE1370</b>	26
95	<b>HAE1395</b>	26
120	<b>HAE13120</b>	26
150	<b>HAE13150</b>	26
185	<b>HAE13185</b>	26
240	<b>HAE13240</b>	35

### Crimping dies HAES 13



**Suitable for**

- Cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
25	<b>HAES1325</b>	20
35	<b>HAES1335</b>	20
50	<b>HAES1350</b>	20
70	<b>HAES1370</b>	20
95	<b>HAES1395</b>	20
120	<b>HAES13120</b>	20
150	<b>HAES13150</b>	35
185	<b>HAES13185</b>	35
240	<b>HAES13240</b>	35

# K15 SERIE



## Crimping dies HR 15



### Suitable for

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

### Additional information

- \* = Narrow crimping (crimp 5 x)
- \*\* = Narrow crimping (crimp 6 x)

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
500 *	<b>HL15500</b>	10
630 **	<b>HL15630</b>	8

## Crimping dies HA 15



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
400	<b>HA15400</b>	38	15
500	<b>HA15500</b>	44	15

## Crimping dies HD 15



### Suitable for

- Compression cable lugs to DIN 46235 and connectors to DIN 46267, part 1 - Cu

### Additional information

- \* = Narrow crimping (crimp 7 x)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
400 *	<b>HD15400</b>	38	7
500 *	<b>HD15500</b>	42	7
625 *	<b>HD15625</b>	44	7



### Crimping dies HR 25

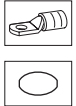


**Suitable for**

- Tubular cable lugs and connectors - Cu, standard type
- Tubular cable lugs for switchgear connections

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	HR2516	10
25	HR2525	10
35	HR2535	10
50	HR2550	13
70	HR2570	13
95	HR2595	15
120	HR25120	15
150	HR25150	20
185	HR25185	20
240	HR25240	20
300	HR25300	20
400	HR25400	20
500	HR25500	20

### Crimping dies HIS 25



**Suitable for**

- Insulated tubular cable lugs and connectors
- Insulated pin terminals

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
10	HIS2510	7
16	HIS2516	7
25	HIS2525	8
35	HIS2535	8
50	HIS2550	10
70	HIS2570	12
95	HIS2595	14
120	HIS25120	14
150	HIS25150	16





## Crimping dies HF 25



### Suitable for

- Tubular cable lugs and connectors for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.
16	<b>HF2516</b>
25	<b>HF2525</b>
35	<b>HF2535</b>
50	<b>HF2550</b>
70	<b>HF2570</b>
95	<b>HF2595</b>
120	<b>HF25120</b>
150	<b>HF25150</b>
185	<b>HF25185</b>
240	<b>HF25240</b>
300	<b>HF25300</b>

## Crimping dies HD 25



### Suitable for

- Compression cable lugs to DIN 46235 - Cu
- Compression joints to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
16	<b>HD2516</b>	8	10
25	<b>HD2525</b>	10	10
35	<b>HD2535</b>	12	10
50	<b>HD2550</b>	14	13
70	<b>HD2570</b>	16	13
95	<b>HD2595</b>	18	14
120	<b>HD25120</b>	20	14
150	<b>HD25150</b>	22	15
185	<b>HD25185</b>	25	15
240	<b>HD25240</b>	28	15
300	<b>HD25300</b>	32	17
400	<b>HD25400</b>	38	17
500	<b>HD25500</b>	42	17
625	<b>HD25625</b>	44	15

## Crimping dies HDP 25



### Suitable for

- Double compression cable lugs

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
2 x 50	<b>HDP2550</b>	22 DP	15
2 x 70	<b>HDP2570</b>	24 DP	15
2 x 95	<b>HDP2595</b>	29 DP	15
2 x 120	<b>HDP25120</b>	32 DP	15

## Crimping dies HQ 25



### Suitable for

- Solderless terminals to DIN 46234 and pin terminals to DIN 46230 - Cu
- Solderless connectors to DIN 46341 - Cu

Cross section mm <sup>2</sup>	Part No.
16	<b>HQ2516</b>
25	<b>HQ2525</b>
35	<b>HQ2535</b>
50	<b>HQ2550</b>
70	<b>HQ2570</b>
95	<b>HQ2595</b>
120	<b>HQ25120</b>
150	<b>HQ25150</b>
185	<b>HQ25185</b>
240	<b>HQ25240</b>

### Crimping dies HISQ 25

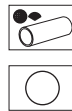


**Suitable for**

- Insulated solderless terminals and pin terminals

Cross section mm <sup>2</sup>	Part No.
10	<b>HISQ2510</b>
16	<b>HISQ2516</b>
25	<b>HISQ2525</b>
35	<b>HISQ2535</b>
50	<b>HISQ2550</b>
70	<b>HISQ2570</b>
95	<b>HISQ2595</b>
120	<b>HISQ25120</b>
150	<b>HISQ25150</b>

### Crimping dies HRU 25

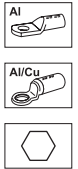


**Suitable for**

- Pre-rounding dies for sector-shaped Al and Cu conductors
- 3- and 4-core sector-shaped conductors

Nominal cross section mm <sup>2</sup> se	Nominal cross section mm <sup>2</sup> sm	Part No.	Conductor dia. mm	Pre-rounding width mm
	10	<b>HRU2510</b>	4.1	40
	16	<b>HRU2516</b>	5.1	40
35	25	<b>HRU253525</b>	6.3	40
50	35	<b>HRU255035</b>	7.5	40
70	50	<b>HRU257050</b>	9.0	40
95	70	<b>HRU259570</b>	10.5	40
120	95	<b>HRU2512095</b>	12.5	40
150	120	<b>HRU25150120</b>	14.0	40
185	150	<b>HRU25185150</b>	15.8	40
240	185	<b>HRU25240185</b>	17.5	40
300	240	<b>HRU25300240</b>	20.3	40
	300	<b>HRU25300SM</b>	22.5	40

### Crimping dies HA 25

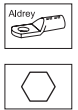


**Suitable for**

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
10	<b>HA2510</b>	10	12
16 - 25	<b>HA251625</b>	12	12
35	<b>HA2535</b>	14	12
50	<b>HA2550</b>	16	12
70	<b>HA2570</b>	18	12
95 - 120	<b>HA2595120</b>	22	14
150	<b>HA25150</b>	25	14
185	<b>HA25185</b>	28	14
240	<b>HA25240</b>	32	17
300	<b>HA25300</b>	34	17
400	<b>HA25400</b>	38	17
500	<b>HA25500</b>	44	15

### Crimping dies HAD 25



**Suitable for**

- Compression joints for full tension connections of Aldrey conductors according to DIN EN 50182
- Al-conductor acc. to DIN EN 50182, 120 - 300 mm<sup>2</sup>

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25	<b>HAD2525</b>	12	12
35	<b>HAD2535</b>	14	12
50	<b>HAD2550</b>	16	12
70	<b>HAD2570</b>	18	12
95	<b>HAD2595</b>	20	14
120	<b>HAD25120</b>	25	14
150 - 185	<b>HAD25150185</b>	28	14
240	<b>HAD25240</b>	34	17
300	<b>HAD25300</b>	38	17



## Crimping dies HAST 25



### Suitable for

- Compression joints acc. to DIN 48085, part 3 for Al-/St-cable acc. to DIN EN 50182
- Aluminium crimping

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25 - 4	<b>HAST2525</b>	12	12
35 - 6	<b>HAST2535</b>	14	12
50 - 8	<b>HAST2550</b>	16	12
70 - 12	<b>HAST2570</b>	18	12
95 - 15	<b>HAST2595</b>	22	14
120 - 20	<b>HAST25120</b>	25	14

## Crimping dies HST 25



### Suitable for

- Compression joints acc. to DIN 48085, part 3 for Al-/St-cable acc. to DIN EN 50182
- Steel crimping

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
25 - 4; 35 - 6	<b>HST2546</b>	6	14
50 - 8	<b>HST258</b>	7	14
70 - 12; 95 - 15	<b>HST251215</b>	9	14
120 - 20	<b>HST2520</b>	13	14

## Crimping dies HC 25 / HMC 25



### Suitable for

- C-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
16	<b>HC2516</b>	16
25	<b>HC2525</b>	17
35	<b>HC2535</b>	20
50	<b>HC2550</b>	20
70	<b>HC2570</b>	20
95	<b>HC2595</b>	20
10 - 16; 10 - 25; 35 - 35	<b>HMC2535</b>	18
25 - 50; 50 - 50	<b>HMC2550</b>	20
35 - 70	<b>HMC2570</b>	20
35 - 95; 70 - 95	<b>HMC2595</b>	20
120 - 120	<b>HMC25120</b>	20
150 - 150	<b>HMC25150</b>	20
185 - 185	<b>HMC25185</b>	20

## Crimping dies HAH 25



### Suitable for

- H-clamps

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
70	<b>HAH2570</b>	20
95	<b>HAH2595</b>	20
120	<b>HAH25120</b>	30

### Crimping dies HAE 25

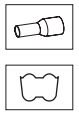


**Suitable for**

- Cable end-sleeves

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
25	<b>HAE2525</b>	20
35	<b>HAE2535</b>	20
50	<b>HAE2550</b>	26
70	<b>HAE2570</b>	26
95	<b>HAE2595</b>	26
120	<b>HAE25120</b>	26
150	<b>HAE25150</b>	26
185	<b>HAE25185</b>	26
240	<b>HAE25240</b>	26

### Crimping dies HAES 25

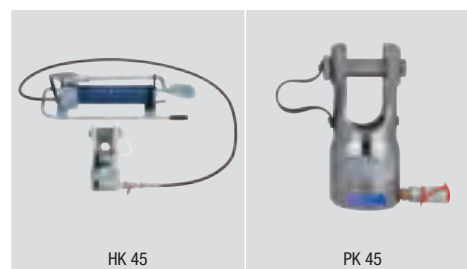


**Suitable for**

- Cable end-sleeves
- Special trapezoid crimp for fine stranded conductors

Cross section mm <sup>2</sup>	Part No.	Crimp width mm
25	<b>HAES2525</b>	20
35	<b>HAES2535</b>	20
50	<b>HAES2550</b>	26
70	<b>HAES2570</b>	26
95	<b>HAES2595</b>	26
120	<b>HAES25120</b>	26
150	<b>HAES25150</b>	26
185	<b>HAES25185</b>	26
240	<b>HAES25240</b>	26

# K45 SERIE



HK 45

PK 45

## Crimping dies HD 45



### Suitable for

- Compression cable lugs to DIN 46235 - Cu
- Compression joints to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
120	<b>HD45120</b>	20	15
150	<b>HD45150</b>	22	15
185	<b>HD45185</b>	25	15
240	<b>HD45240</b>	28	15
300	<b>HD45300</b>	32	17
400	<b>HD45400</b>	38	17
500	<b>HD45500</b>	42	17
625	<b>HD45625</b>	44	17
800	<b>HD45800</b>	52	20
1000	<b>HD451000</b>	58	20

## Crimping dies HAD 45



### Suitable for

- Compression joints for full tension connections of Aldrey conductors according to DIN EN 50182
- Al-conductor acc. to DIN EN 50182, 150 - 300 mm<sup>2</sup>

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
150 - 185	<b>HAD45150185</b>	28	20
240	<b>HAD45240</b>	34	20
300	<b>HAD45300</b>	38	20

## Crimping dies HA 45



### Suitable for

- Compression cable lugs and connectors to DIN - Al
- Compression cable lugs and connectors Al/Cu (aluminium side)

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
150	<b>HA45150</b>	25	15
185	<b>HA45185</b>	28	15
240	<b>HA45240</b>	32	17
300	<b>HA45300</b>	34	20
400	<b>HA45400</b>	38	20
500	<b>HA45500</b>	44	20



PK 1000



### Crimping dies HD 100

**NEW**



#### Suitable for

- Compression cable lugs to DIN 46235 - Cu
- Compression joints to DIN 46267, part 1 - Cu

Cross section mm <sup>2</sup>	Part No.	Code	Crimp width mm
625	<b>HD100625</b>	44	60
800	<b>HD100800</b>	52	75
1000	<b>HD1001000</b>	58	40



# CUTS ABSOLUTELY EVERYTHING.

Klauke cutting tools offer an impressively broad range of applications. No matter which material or cross sections you want to cut, Klauke tools ensure you work simply, quickly and safely.





# Cutting

<b>Mechanical cutting tools</b>	<b>362</b>
<hr/>	
<b>Battery powered cutting tools</b>	<b>370</b>
Platform based on 10.8 V	371
Platform based on 18 V	374
Battery powered universal tools	393
<hr/>	
<b>Hand-operated hydraulic cutting tools</b>	<b>396</b>
<hr/>	
<b>Hydraulic cutting heads and cutting systems</b>	<b>399</b>
Hydraulic cutting heads	400
Hydraulic cutting systems	404
<hr/>	
<b>Safety cutting tools</b>	<b>406</b>
<hr/>	
<b>Special cutting tools</b>	<b>410</b>
DIN rail cutting tools	411
Wiring duct cutter	412
Cutting dies	412





# PERFECT CUTTING - MECHANICAL CUTTING TOOLS

In use, every cut must sit straight away. Our mechanical cutting tools are prepared for your work. The ergonomic handle is there to assist you, because the first moment, the typical Klauke lever technology optimally transfers your force. Your cuts are precise, the tools are easy to use and durable thanks to high material quality. Good first impression.



### In brief

- ▶ Cutting tools for aluminium and copper cables up to 100 mm diameter
- ▶ Simple working due to optimised force transmission
- ▶ Precise cuts with high-quality cutting blades
- ▶ Effortless operations thanks to ergonomic shape

▶ **For everyday use**

Klauke cutting tools are made from high-quality materials: “Made in Germany”. Highly durable and are therefore best suited for daily use in workshops or on the construction site.

- Cutting tools for aluminium and copper cables up to 100 mm diameter

- Also available as fully-insulated tool to 1000 V to DIN EN 60900
- Re-adjustable cutters
- Effortless operations due to low weight
- Processing of high-quality materials



▶ **Powerful in every situation**

- Compact and convenient size
- Practical single-handed operation with low effort
- Effective cutting performance up to Cu 12 mm dia.
- Reduced effort required due to different cutting profiles for large and small diameters

▶ **Flexible in use**

- Stepless telescopic handles permit optimum lever adjustment
- Cutting head can be replaced
- Well suited for fine-stranded conductors





### K 118 Hand-operated cutting tool for Al and Cu cables to 12 mm dia.



- ▶ Perfect in confined areas
- ▶ Handy shape with high cutting performance
- ▶ Exceptional cutting tool for solid, multi, fine and superfine stranded cables e.g. to DIN EN 60228, Class 1, 2, 5 and 6
- ▶ Increased user convenience thanks to two cutting profiles for small and large cable dimensions

#### Characteristics

- One-hand operation

#### Suitable for

- For solid conductors, class 1, to 10 mm<sup>2</sup> (max. 4 mm dia.)
- Copper stranded conductors, class 2, to 16 mm<sup>2</sup> (max. 5 mm dia.)
- Aluminium stranded conductors, class 2, to 25 mm<sup>2</sup> (max. 10 mm dia.)
- Copper fine and superfine stranded conductors, class 5 and 6, to 50 mm<sup>2</sup> (max. 12 mm dia.)

Technical data	
Cutting range	max. 12 mm dia., e.g. 1 x 50 mm <sup>2</sup> H07VK
Length	165 mm
Weight	0.17 kg
Item	Part No.
Hand-operated cutting tool for to 12 mm dia.	<b>K118</b>

### K 100 Hand-operated cutting tool for Al and Cu cables to 14 mm dia.



- ▶ Optimised cutting tool for fine and multi-stranded cables

#### Characteristics

- Compact design permits cutting in confined areas
- Two-hand operation

Technical data	
Cutting range	max. 14 mm dia., e.g. 1 x 50 mm <sup>2</sup> H07VK
Length	280 mm
Weight	0.55 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 14 mm dia.	<b>K100</b>

### K 102 Hand-operated cutting tool for to 25 mm dia.



- ▶ Optimised cutting tool for fine and superfine stranded Cu cables to DIN EN 60228, Cl. 5+6
- ▶ Adjustable pivot point

#### Characteristics

- Handle with slip guard and inscription panel
- Two-handed locking

Technical data	
Cutting range	max. 25 mm dia., e.g. 1 x 95 mm <sup>2</sup> H07V-K
Length	210 mm
Weight	0.38 kg
Item	Part No.
Hand-operated cutting tool for to 25 mm dia.	<b>K102</b>

**K 106/1 Hand-operated cutting tool for Al and Cu cables, class 2 to Ø 34 mm**



- ▶ Effortless operations thanks to energy-saving 2-stage ratchet system
- ▶ Lightweight design with great cutting performance

**Characteristics**

- One-hand operation
- Not suitable for cutting steel or steel wire
- Handle with slip guard and inscription panel

Technical data	
Cutting range	max. 34 mm dia., e.g. 4 x 35 mm <sup>2</sup> NYN
Length	260 mm
Weight	0.6 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 34 mm dia.	<b>K1061</b>

**K 106/2 Hand-operated cutting tool for Al and Cu cables, class 2 to Ø 62 mm**



- ▶ Effortless operations thanks to energy-saving 2-stage ratchet system
- ▶ Lightweight design with great cutting performance
- ▶ Cutting range to 62 mm

**Characteristics**

- One-hand operation
- Not suitable for cutting steel or steel wire
- Handle with slip guard and inscription panel

Technical data	
Cutting range	e.g. 4 x 120 mm <sup>2</sup> NYN, max. 62 mm dia.
Length	260 mm
Weight	0.6 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 62 mm dia.	<b>K1062</b>

**K 103/1 Hand-operated cutting tool for Al and Cu cables to 60 mm dia.**



- ▶ Energy-efficient 2-stage ratchet system
- ▶ For earth, plastic and rubber cables

**Characteristics**

- Not suitable for cutting steel or steel wire

Technical data	
Cutting range	e.g. 4 x 240 mm <sup>2</sup> NAYN, max. 60 mm dia.
Length	720 mm
Weight	4.5 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 60 mm dia.	<b>K1031</b>





## Cutting

Mechanical cutting tools

### K 104/1 Hand-operated cutting tool for Al and Cu cables to 100 mm dia.



- ▶ Energy-efficient 2-stage ratchet system
- ▶ For earth, plastic and rubber cables
- ▶ Very wide cutting range up to 100 mm diameter

#### Characteristics

- Not suitable for cutting steel or steel wire

Technical data	
Cutting range	e.g. 4 x 400 mm <sup>2</sup> NAYY, max. 100 mm dia.
Length	870 mm
Weight	5.7 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 100 mm dia.	<b>K1041</b>

### K 130 Hand-operated cutting tool for Al and Cu cables to 30 mm dia.



- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- ▶ Large cutting range

#### Characteristics

- Safe working thanks to roughened handle
- Not suitable for cutting steel or steel wire

Technical data	
Cutting range	e.g. 4 x 35 mm <sup>2</sup> NYY, max. 30 mm dia.
Length	570 mm
Weight	1.7 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 30 mm dia.	<b>K130</b>

### K 230 Hand-operated cutting tool for Al and Cu cables to 30 mm dia.



- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- ▶ Secure grip due to roughened handle
- ▶ 1000 V fully insulated to IEC 60900

#### Characteristics

- Not suitable for cutting steel or steel wire

Technical data	
Cutting range	max. 30 mm dia., e.g. 4 x 35 mm <sup>2</sup> NYY
Length	570 mm
Weight	2.1 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 30 mm dia.	<b>K230</b>

### K 250 Hand-operated cutting tool for Al and Cu cables to 50 mm dia.



 1000 V  
IEC 60900

- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- ▶ 1000 V fully insulated to IEC 60900

#### Characteristics

- Two-hand operation
- Large cutting range
- Not suitable for cutting steel or steel wire

Technical data	
Cutting range	e.g. 4 x 120 mm <sup>2</sup> NYY, max. 50 mm dia.
Length	710 mm
Weight	3.7 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 50 mm dia.	<b>K250</b>

### K 150 Hand-operated cutting tool for Al and Cu cables to 50 mm dia.



- ▶ Exceptional cutting performance even with fine-stranded conductors thanks to specially designed, extremely sharp cutting blades
- ▶ Secure grip due to roughened handle

#### Characteristics

- Large cutting range
- Not suitable for cutting steel or steel wire

Technical data	
Cutting range	max. 50 mm dia., e.g. 4 x 120 mm <sup>2</sup> NYY
Length	710 mm
Weight	3 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 50 mm dia.	<b>K150</b>

### K 101/1 Hand-operated cutting tool for Al and Cu cables to 26 mm dia.



- ▶ Can be maintained on-site thanks to replaceable cutting heads
- ▶ Exceptional cutting performance even with fine-stranded conductors

#### Characteristics

- Two-hand operation
- Excellent leverage
- Not suitable for cutting steel or steel wire
- Safe working thanks to roughened handle

Technical data	
Cutting range	e.g. 4 x 25 mm <sup>2</sup> NYY, max. 26 mm dia.
Length	570 mm
Weight	1.8 kg
Item	Part No.
Hand-operated cutting tool for Cu and Al cables to 26 mm dia.	<b>K1011</b>
Accessories	Part No.
Replacement cutting head	K1011E



## Cutting

Mechanical cutting tools

### K 105/1 Hand-operated cutting tool for Al and Cu cables to 26 mm with telescopic handles dia.



- ▶ Compact dimensions with extending telescopic handles for easier carrying
- ▶ High cutting performance
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5

#### Characteristics

- Two-hand operation
- Maintenance on-site due to replacement of cutting heads
- Safe working thanks to roughened handle
- Not suitable for cutting steel or steel wire

Technical data		
Cutting range	e.g. 4 x 25 mm <sup>2</sup> NYY, max. 26 mm dia.	
Length	Stepless 350 - 520 mm	
Weight	1.4 kg	
Item	Part No.	
Hand-operated cutting tool for Al and Cu cables to 26 mm dia., length 350 - 520 mm continuous	<b>K1051</b>	
Accessories	Part No.	Page
Replacement cutting head	K1011E	

### K 201/1 Hand-operated cutting tool for Al and Cu cables to 26 mm dia., length 570 mm



- ▶ 1000 V fully insulated to IEC 60900
- ▶ High cutting performance
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5

#### Characteristics

- Two-hand operation
- Maintenance on-site due to replacement of cutting heads
- Not suitable for cutting steel or steel wire

Technical data		
Cutting range	max. 26 mm dia., e.g. 4 x 95 mm <sup>2</sup> NYY	
Length	570 mm	
Weight	2 kg	
Item	Part No.	
Hand-operated cutting tool for Al and Cu cables to 26 mm dia., length 570 mm	<b>K2011</b>	
Accessories	Part No.	Page
Replacement cutting head	K1011E	



**K 101/2 Hand-operated cutting tool for Al and Cu cables to 38 mm dia.**



- ▶ Large cutting range
- ▶ Telescopic handles
- ▶ Also for fine-stranded conductors e.g. to DIN EN 60228 Cl. 5
- ▶ Can be maintained on-site thanks to replaceable cutting heads

**Characteristics**

- Not suitable for cutting steel or steel wire
- Safe working thanks to roughened handle

Technical data		
Cutting range	max. 38 mm dia.	
Length	930 mm	
Weight	4.2 kg	
Item	Part No.	
Hand-operated cutting tool for Cu and Al cables to 38 mm dia.	<b>K1012</b>	
Accessories	Part No.	Page
Replacement cutting head	K1012E	







# THE LITTLE CUTTING EXPERT - BATTERY-POWERED HYDRAULIC CUTTING TOOL (10.8 V)

The Klauke mini is lightweight yet powerful. The high-quality shears cut with an opening width of 32 mm, the bolt cutters with a 12 mm opening width. Its practical dimensions make it especially suitable for confined areas.

## ***Klauke***<sup>®</sup>*mini*

### ▶ Pure performance without frills

The Klauke mini concentrates on its core task: reliable cutting. Even without pressure sensor and display, the little expert does its job well - no fuss or quibble.

### ▶ Usage time at a glance

Read the charge level at any time directly from the powerful 10.8 V battery.

### ▶ All-round cutting

Cutting in confined areas? No problem with these cutting heads, which rotate through 360°.



**EBS 8 ML / EBS 12 ML Battery powered hydraulic bolt cutter 8 mm dia. / 12 mm dia.**



- ▶ For cutting cable channels, bolts and steel wire, medium-hard (e.g. ST 37)
- ▶ Slim cutting head - ideal when space is critical
- ▶ Powerful 10.8 V Li-Ion battery with charge status display

**Characteristics**

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

Technical data	
Cutting range	EBS8ML: max. 8 mm dia., EBS12ML: max. 12 mm dia.
Cutting force	EBS8ML: 15 kN, EBS12ML: 45 kN
Cutting time	EBS8ML: 2 s, EBS12ML: 4 s (depending on material thickness)
Number of cuts	ES8ML: 80 at silver steel 6 mm, EBS12ML: 105 at mild steel 10 mm
Battery voltage	10.8 V
Battery capacity	1.5 Ah, Li-Ion
Charging time	approx. 40 min.
Weight incl. battery	EBS8ML: 1.2 kg, EBS12ML: 1.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.
Battery powered hydraulic bolt cutting tool 8 mm dia.	<b>EBS8ML</b>
Battery powered hydraulic bolt cutting tool 12 mm dia.	<b>EBS12ML</b>

Scope of supply	Part No.	Page
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	RAML1	493
Charger for 10.8 V Li-Ion batteries, 230 V	LGML1	495
Plastic case	KKML	



## Cutting

Battery-powered hydraulic cutting tools 10.8 V

### ES 20 ML Battery powered hydraulic cutting tool 20 mm dia.



- ▶ For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ Extremely robust design and lightweight
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

#### Characteristics

- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

#### Technical data

Cutting range	Multi-stranded max. 20 mm dia. (depending on cable type)
Cutting force	23 kN
Cutting time	4 s to 6 s (depending on material thickness)
Number of cuts	approx.160 for steel cable 8 mm
Battery voltage	10.8 V
Battery capacity	1.5 Ah, Li-Ion
Charging time	approx. 40 min.
Weight incl. battery	1.6 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.	
Battery powered hydraulic cutting tool 20 mm dia.	<b>ES20ML</b>	
Scope of supply	Part No.	Page
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	RAML1	493
Charger for 10.8 V Li-Ion batteries, 230 V	LGML1	495
Plastic case	KKML	
Accessories	Part No.	
Replacement blade	<b>ES20E</b>	

**ES 32 ML / ES 32 F ML Battery powered hydraulic cutting tools 32 mm dia.**



- ▶ Cuts multi-stranded copper and aluminium cables (ES 32 ML)
- ▶ Cuts fine and superfine stranded copper cables (ES 32 F ML)
- ▶ Slim cutting head - ideal when space is critical
- ▶ Powerful 10.8 V Li-Ion battery technology with battery charge indicator

**Characteristics**

- Open head, rotatable
- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Effortless working thanks to low weight
- Simple and safe: Automatic retraction when operation is complete
- Maintenance display via LED

Technical data		
Cutting range	max. 32 mm dia.	
Cutting force	15 kN	
Cutting time	8 s to 10 s (depending on material thickness)	
Number of cuts	ES32ML: approx. 90 at 150 mm <sup>2</sup> NYV, ES32FML: approx. 120 at H07V-K 185 mm <sup>2</sup>	
Battery voltage	10.8 V	
Battery capacity	1.5 Ah, Li-Ion	
Charging time	approx. 40 min.	
Weight incl. battery	1.8 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No.	
Battery powered hydraulic cutting tool 32 mm dia.	<b>ES32ML</b>	
Battery powered hydraulic cutting tool 32 mm dia., superfine-stranded	<b>ES32FML</b>	
Scope of supply	Part No.	Page
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	RAML1	493
Charger for 10.8 V Li-Ion batteries, 230 V	LGML1	495
Plastic case	KKML	
Accessories	Part No.	
Replacement blade set	<b>ES32E</b>	
Replacement blade set for fine and superfine stranded copper cables	<b>ES32FE</b>	

# THE NEW STANDARD - KLAUKE NEXT GENERATION CUTTING TOOLS

Aspire to the new standard: Battery-powered hydraulic cutting tools from Klauke offer impressive power and durability. The tools effortlessly cut cross-sections up to 105mm, with open cutting head for better accessibility or closed cutting head for improved force transmission. Improved ergonomics with optimised centre of gravity makes work more convenient and faster. Also through the time-saving opening mechanism.



## In brief

- ▶ Freely-selectable battery platform: with Bosch or Makita
- ▶ Proof of quality can be created via Bluetooth
- ▶ Ensure tool availability: Read the tool properties from the display or via the app
- ▶ Effortless operations thanks to modern, ergonomic design

Interested in Klauke Next Generation tools? Then take a look at our Multi universal tool on [Page 472 >>](#)

**► Making work easier**

Klauke cutting tools guarantee effortless operations: The “mini” impresses through its low weight and the pistol shape ensures a balanced centre of gravity

- Our compact “mini” is just perfect for confined areas
- The 2-stage hydraulic system allows you to work quickly thanks to fast feed and power stroke
- Save time with the innovative opening mechanism of the cutters. They open immediately after every cut.
- Extremely impressive and reliable: The one-button control concept for all tools



**► Latest developments for your everyday work**

Mini design - Pure cutting force: The ESGM45 and the ESM50 impress all along the line and for every application

- Cutting made simple thanks to a new, improved cutter geometry
- Burr-free cutting of wire mesh cable trays without any rework whatsoever thanks to the new wire mesh cable tray cutter

**► i-press® app**

Use the i-press® app to check and control your tool data on the go. Individual tool settings, such as the double-click function for increased user safety, help make your day-to-day work simpler and more reliable - just as you need it.

**The i-press® app can be found at:**  
[www.klauke.com/en/service/downloads/connectivity-software/](http://www.klauke.com/en/service/downloads/connectivity-software/)





## Cutting

Battery-powered hydraulic cutting tools 18 V

### EBS 6 L GKS Battery powered hydraulic cable tray cutter 6 mm dia.



- ▶ No follow-up work required thanks to burr-free cutting
- ▶ Fast and efficient operations: The cut is made in less than 1 second
- ▶ Maintenance required only after 20.000 cuts (renew hydraulic shock absorber system)
- ▶ Always cut ready due to autonomous replaceable blades

#### Characteristics

- Open head, rotatable
- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Powerful 18 V Li-Ion battery - high capacity, short charging time
- High-performance motor for maximum operating speed
- Energy saving function with motor cut-out after successful operation
- Quick motor stop for high user safety
- Simple and safe: Automatic retraction when operation is complete
- Manual retract as required
- Multifunction LED for maintenance display and charge status display of the battery
- Environmentally-friendly hydraulic oil, quickly biodegradable

#### Technical data

Cutting range	max. 6 mm (VA)
Cutting force	24 kN
Cutting time	< 1 s
Number of cuts	approx. 300 at 6 mm VA, 360 at grid channel 5 mm
Battery voltage	18 V
Battery capacity	1.5 Ah
Charging time	15 min.
Weight incl. battery	1.9 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No.	
Battery powered hydraulic cable tray cutter 6 mm dia.	<b>EBS6LGKS</b>	
Scope of supply	Part No.	Page
Makita battery 18 V / 1.5 Ah, Li-Ion	RAL1	491
Makita quick-charger for 18 V Li-Ion battery	LGL1	494
Plastic case	KK50L	
Accessories	Part No.	Page
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2	491
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	492
18 V mains adapter for 230 V Voltage	NG2230	493



**EBS 8 Battery powered hydraulic bolt cutter 8 mm dia.**



- ▶ For cutting cable trays, bolts and medium-hard steel wire (e.g. ST 37)
- ▶ Narrow crimping head - Ideal in confined areas
- ▶ All tool data in view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- LED display for showing tool data
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- Cable trays, bolts, medium-hard steel wire

Technical data			
Cutting range	max. 8 mm dia.		
Cutting force	15 kN		
Cutting time	1 s (depending on material thickness)		
Charging time	15 min.		
Weight incl. battery	1.65 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part-No. Bosch	Part-No. Makita	
Battery powered hydraulic bolt cutting tool 8 mm dia.	<b>EBS8CFB</b>	<b>EBS8CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491







## Cutting

Battery-powered hydraulic cutting tools 18 V

### EBS 12 Battery powered hydraulic bolt cutter 12 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting cable trays, bolts and medium-hard steel wire (e.g. ST 37)
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- LED display for showing tool data
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cable trays, bolts, medium-hard steel wire

Technical data			
Cutting range	max. 12 mm dia.		
Cutting force	45 kN		
Cutting time	2 s (depending on cable size)		
Charging time	15 min.		
Weight incl. battery	2.1 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic bolt cutting tool 12 mm dia.	<b>EBS12CFB</b>	<b>EBS12CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491

## ES 20 Battery powered hydraulic cutting tool 20 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ Extremely robust design and lightweight
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Al/St wire (ACSR)

Technical data			
Cutting range	max. 18 mm dia. (depending on cable type)		
Cutting force	23 kN		
Cutting time	2 s to 4 s (depending on cable type)		
Charging time	15 min.		
Weight incl. battery	2.0 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 20 mm dia.	<b>ES20CFB</b>	<b>ES20CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Replacement blade	ES20E	ES20E	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered cutting tool ES20CFB	LBOXXES20CFB		205
L-BOXX with battery powered cutting tool ES20CFM			LBOXXES20CFM 205





# Cutting

Battery-powered hydraulic cutting tools 18 V

## ES 20 RMC / ES 32 RMC Battery powered hydraulic cutting tool 20 mm or 32 mm dia. **NEXT GENERATION**



- ▶ Tool with remote control, e.g. for telescopic rods
- ▶ **ES20RMC:** For cutting Al/St conductors (ACSR) to DIN EN 50182, solid Al/Cu cables to DIN EN 60228, Class 1 and laminated copper bus bars
- ▶ **ES32RMC:** Cuts multi-stranded Al/Cu cables Class 2
- ▶ Extremely robust design and lightweight
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and i-press® app
- ▶ Powerful 18 V Li-Ion battery - high capacity, short charging time
- ▶ Can also be used as a normal cable cutter when the Hotstick holder is not attached

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless operations due to balanced centre of gravity, even when used with a telescopic rod
- LED for work area illumination
- Quick motor stop for high user safety
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Energy saving: Motor stops when the operation is complete
- Always ready-to-use thanks to battery charge and service display
- Simple one-hand operation via remote control

### ES 20 RMC suitable for

- Al/St wire (ACSR)
- Solid Al/Cu cables to DIN EN 60228 Class 1
- Laminated Cu bus-bars

### ES 32 RMC suitable for

- Multi-stranded Al/Cu cable Class 2

### Additional information

- Part number suffix for tools without battery and charger „0000“



Scope of supply for ES 20 RMC

Technical data			
Head type	Cutter open		
Cutting range	max. Ø 20 mm / max. Ø 32 mm		
Cutting time	2 s to 8 s (depending on material thickness)		
Charging time	15 min.		
Weight incl. battery	2.0 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 20 mm dia.	<b>ES20RMCCFB</b>		
Battery powered hydraulic cutting tool 20 mm dia.		<b>ES20RMCCFM</b>	
Battery powered hydraulic cutting tool 32 mm dia.	<b>ES32RMCCFB</b>		
Battery powered hydraulic cutting tool 32 mm dia.		<b>ES32RMCCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Bluetooth remote control	BTC2	BTC2	
Accessories			Page
Bosch battery 18 V / 4.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Replacement blade set for ES 20 RMC	ES20E	ES20E	
Replacement blade set for ES 32 RMC	ES32E	ES32E	

**ESG 25 Battery powered hydraulic cutting tool 25 mm dia.**

**NEXT  
GENERATION**



- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, solid structural steel and fine-stranded copper cables
- ▶ High-performance cutting characteristics for highly-flexible conductors and wire cables
- ▶ Extremely robust design and lightweight
- ▶ All tool data in view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head, flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- Al/St wire (ACSR), Cu, Al, St and armoured cables, construction steel, fine-stranded copper cable

Technical data			
Head type	Guillotine closed		
Cutting range	max. 25 mm dia.		
Cutting force	60 kN		
Cutting time	Depending on material		
Charging time	15 min.		
Weight incl. battery	2.0 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 25 mm dia.	<b>ESG25CFB</b>	<b>ESG25CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Inner moving blade		ESG25ES	
Outer fixed blade		ESG25EF	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491





# Cutting

Battery-powered hydraulic cutting tools 18 V

## ES 32 Battery powered hydraulic cutting tool 32 mm dia.

**NEXT  
GENERATION**



- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Stranded Cu and Al cables

Technical data		
Head type	Cutter open	
Cutting range	max. 32 mm dia.	
Cutting force	15 kN	
Cutting time	8 s to 10 s (depending on cable type)	
Charging time	15 min.	
Weight incl. battery	2.0 kg	
Ambient temperature	-10 °C up to +40 °C	
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>
Battery powered hydraulic cutting tool 32 mm dia.	<b>ES32CFB</b>	<b>ES32CFM</b>

Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Replacement blade set	ES32E		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered cutting tool ES32CFB	LBOXXES32CFB		205
L-BOXX with battery powered cutting tool ES32CFM		LBOXXES32CFM	205

**ES 32 F Battery powered hydraulic cutting tool 32 mm dia.  
for fine and superfine stranded copper cable**



- ▶ Cuts fine and superfine stranded copper cables
- ▶ Slim cutting head - ideal when space is critical
- ▶ All tool data in view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- Fine and superfine stranded copper cables

Technical data	
Head type	Cutter open
Cutting range	max. 32 mm dia.
Cutting force	15 kN
Cutting time	8 s to 10 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	2.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 32 mm dia., superfine-stranded	<b>ES32FCFB</b>	<b>ES32FCFM</b>	
<b>Scope of supply</b>			<b>Page</b>
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
<b>Accessories</b>			<b>Page</b>
Replacement blade set for fine and superfine stranded copper cables		ES32FE	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
<b>Variants</b>			<b>Page</b>
L-BOXX with battery powered cutting tool ES32FCFB	LBOXXES32FCFB		205
L-BOXX with battery powered cutting tool ES32FCFM		LBOXXES32FCFM	205





### ESGM 45 Battery powered hydraulic cutting tool 45 mm dia.

**NEXT  
GENERATION**



- ▶ For cutting Al/St cables (ACSR), round materials (Cu, Al, St) as well as armoured cables, solid structural steel and fine-stranded copper cables
- ▶ High-performance cutting characteristics for highly-flexible conductors and wire cables
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations

#### Suitable for

- Cu and Al cables, Al/St wires (ACSR)

Technical data			
Head type	Guillotine closed		
Cutting range	max. 45 mm dia.		
Cutting force	70 kN		
Cutting time	8 s to 10 s (depending on material thickness)		
Charging time	15 min.		
Weight incl. battery	4.6 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 45 mm dia.	<b>ESGM45CFB</b>	<b>ESGM45CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU	492	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	494	
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KKESGM45NG	KKESGM45NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	493	
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491

## SPECIALIST FOR ARMoured CABLE + CONSTRUCTION STEEL

Thanks to its closed and rotating head, the ESGM45 is the specialist for cutting ACSR ropes, round materials (Cu, Al, St), and also armoured cable and solid construction steel, for instance. Even fine-stranded and highly-flexible conductors and wire ropes up to 45 mm can be precisely cut. As a special highlight, the tool has the innovative opening mechanism, which facilitates safe and fast operations. If an unwelcome object happens to be located between the cutters, all you need to do is release the control button. The two cutting blades then move apart straight away. This mechanism also makes sure that the tool is quickly ready to use again after a completed cut.

**ESG 45 Battery powered hydraulic cutting tool 45 mm dia.**

**NEXT  
GENERATION**



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ Extremely robust design and lightweight
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- Armoured Cu and Al cables, Al/St wires

Technical data			
Head type	Guillotine closed		
Cutting range	max. 45 mm dia.		
Cutting force	70 kN		
Cutting time	8 s to 18 s (depending on material)		
Charging time	45 min.		
Weight incl. battery	5.9 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 45 mm dia.	<b>ESG45CFB</b>	<b>ESG45CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Inner moving blade		ESG45ES1	
Outer fixed blade		ESG45EF	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492







### ESM 50 Battery powered hydraulic cutting tool 50 mm dia. for copper and aluminium cable

**NEXT  
GENERATION**



- ▶ For cutting copper and aluminium cables (fine-stranded also)
- ▶ Very high cutting capacity thanks to innovative cutting geometry
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cables (multi and fine stranded) even armoured cable

#### Technical data

Head type	Cutter open
Cutting range	max. 50 mm dia.
Cutting force	38 kN
Cutting time	8 s up to 10 s (depending on material thickness)
Charging time	15 min.
Weight incl. battery	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 50 mm dia.	<b>ESM50CFB</b>	<b>ESM50CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK50NG	KK50NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491

## A GENUINE ALL-ROUNDER!

One tool for (almost) all situations! Both multi-stranded and fine-stranded (including armoured) cables are reliably cut. So you need only require one tool for a range of applications. Thanks to new cutting geometry, the annoying jamming of strands in the cutting blades is also a thing of the past.



## ESG 55 Battery powered hydraulic cutting tool 55 mm dia.

**NEXT  
GENERATION**



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ 120 kN cutting force for maximum output
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- Armoured Cu and Al cables, Al/St wires

Technical data	
Head type	Guillotine closed
Cutting range	max. 55 mm dia.
Cutting force	120 kN
Cutting time	10 s to 19 s (depending on material thickness)
Charging time	45 min.
Weight incl. battery	8.2 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 55 mm dia.	<b>ESG55CFB</b>	<b>ESG55CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Inner moving blade	ESG55ES		
Outer fixed blade	ESG55EF		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492



## Cutting

Battery-powered hydraulic cutting tools 18 V

### ES 65 Battery powered hydraulic cutting tool 65 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- All data can be easily read via Bluetooth
- Choose your battery system: Bosch or Makita
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu/Al cable

#### Technical data

Head type	Cutter open
Cutting range	max. 65 mm dia.
Cutting force	40 kN
Cutting time	Depending on material thickness
Charging time	45 min.
Weight incl. battery	6.3 kg
Ambient temperature	-12 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 65 mm dia.	<b>ES65CFB</b>	<b>ES65CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Replacement blade		ES65E	
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

**ESG 85 Battery powered hydraulic cutting tool 85 mm dia.**

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armoring (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Larger cutting area, optimum force transmission due to closed head shape
- Simple and safe: One-button operating concept for controlling all tool functions
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- lightly armoured Cu and Al cables

Technical data			
Head type	Guillotine closed		
Cutting range	max. 85 mm dia.		
Cutting force	60 kN		
Cutting time	Depending on material thickness		
Charging time	45 min.		
Weight incl. battery	6.8 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. Bosch	Part No. Makita	
Battery powered hydraulic cutting tool 85 mm dia.	<b>ESG85CFB</b>	<b>ESG85CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	493	
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU	494	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Inner moving blade	ESG85ES1		
Outer fixed blade	ESG85EF1		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU	493	
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492



### ES 85 Battery powered hydraulic cutting tool 85 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cable



Technical data	
Head type	Cutter open
Cutting range	max. 85 mm dia.
Cutting force	30 kN
Cutting time	Depending on material thickness
Charging time	45 min.
Weight incl. battery	7.2 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 85 mm dia.	<b>ES85CFB</b>	<b>ES85CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120NG	KK120NG	
Accessories			Page
Replacement blade	ES85E		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

**ESG 105 Battery powered hydraulic cutting tool 105 mm dia.**



- ▶ Cuts copper and aluminium cables with armoring
- ▶ 120 kN cutting force for extremely wide cutting range up to 105 mm dia.
- ▶ Remarkably lightweight for tools in this performance class
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Closed head with bolt interlock, rotatable, flip top style
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

**Suitable for**

- lightly armoured Cu and Al cables

Technical data			
Head type	Guillotine closed		
Cutting range	max. 105 mm dia.		
Cutting force	120 kN		
Cutting time	Depending on cable type		
Charging time	45 min.		
Weight incl. battery	10.7 kg		
Ambient temperature	-10 °C up to +40 °C		
Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 105 mm dia.	<b>ESG105CFB</b>	<b>ESG105CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita quick-charger for 18 V Li-Ion battery		RAL40	492
Plastic case 450 x 370 x 105 mm		LGL1	494
Makita battery 18 V / 4.0 Ah, Li-Ion	MK105NG	MK105NG	
Accessories			Page
Inner moving blade	ESG105ES		
Outer fixed blade	ESG105EF		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492



### ES 105 Battery powered hydraulic cutting tool 105 mm dia.

**NEXT  
GENERATION**



- ▶ Cuts copper and aluminium cables with lightweight steel armouring and fine-stranded conductors (depending on cable type)
- ▶ Extremely large cutting area to 105 mm dia.
- ▶ Saves time with multiple cuts thanks to innovative opening mechanism
- ▶ All tool data in view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Open head, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete
- Manual retract stop (MRS) for efficient operations
- Always ready-to-use thanks to battery charge and service display

#### Suitable for

- Cu and Al cable



Technical data	
Head type	Cutter open
Cutting range	max. 105 mm dia.
Cutting force	74 kN
Cutting time	Depending on cable type
Charging time	45 min.
Weight incl. battery	9.6 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery powered hydraulic cutting tool 105 mm dia.	<b>ES105CFB</b>	<b>ES105CFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	MK105NG	MK105NG	
Accessories			Page
Replacement blade	ES105E		
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492

## EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



**K22  
SERIE**

**K18  
SERIE**

**K5  
SERIE**

- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press® app
- ▶ Small and slim, perfect for cramped conditions

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	7 s up to 9 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square
Charging time	15 min.
Weight	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EKM60UNVCFB</b>	<b>EKM60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Adapter for crimping dies of Series 22	UA22	UA22	478
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered universal tool EKM60UNVCFB	LBOXXEKM60UNVCFB		205
L-BOXX with battery powered universal tool EKM60UNVCFM		LBOXXEKM60UNVCFM	205





## Cutting

Battery powered cutting tools

### EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ Fast working due to 2-stage hydraulics
- ▶ All tool data on view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 5 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round
Charging time	45 min.
Weight	4.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EK60UNVCFB</b>	<b>EK60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	UA22	UA22	478
Adapter for crimping dies of Series 22	KK120UNVNG	KK120UNVNG	

## EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press® app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



**K13  
SERIE**

Technical data	
Crimping force	108 kN
Stroke	42 mm
Crimping range	10 - 400 mm <sup>2</sup>
Crimping cycle	Depending on cable type
Cutting range	max. 40 mm dia.
Punching capacity	up to 144 mm dia. round, up to 138 x 138 mm square
Charging time	45 min.
Weight	6.5 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 10 - 400 mm <sup>2</sup>	<b>EK120UNVCFB</b>	<b>EK120UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120UNVNG	KK120UNVNG	
Adapter for crimping dies	UA12TKL	UA12TKL	478



# ALWAYS IN POSITION - 2 STAGES FOR MORE POWER

We promise you: Our cutting tools are powerful. The 2-stage hydraulic system uses its power to the full, the automatic retraction returns the cutter to the original position once the cut is made. Made from aluminium, it feels light in the hand.

As we said: a powerful tool!



### ► Comfortable all day long

Numerous cuts in succession are tiring. With the hand-operated hydraulic cutting tools, the housing and pump lever are therefore made from aluminium. The pump lever is in exactly the correct position, and so the pump movement requires only a small space - compared to a mechanical tool. Work better with the convenience of Klauke.

- Effortless operations due to the ergonomic design and low weight
- Work faster with the innovative 2-stage hydraulic system for fast feed and power stroke with counter pressure

### ► Adapts

All hand-operated hydraulic cutting tools have press heads that rotate through 360°. So you can work even in confined areas with flexible settings.

- Rotating heads for work in confined areas
- Extremely robust cutting heads

### ► Save yourself the return stroke

Your force acts in just one direction: Forwards. When the cutting process is complete, the cutting blades retract into the home position via the automatic retraction function. You save on the return path.

- Automatic retraction returns the cutting blades to the home position after the cut is made
- More reliability and shorter intervals between cutting processes
- Can be used up to a diameter of 85 mm
- Cutting force up to 120 kN
- Bolt locking of cutting blade

## HSG 45 Hand-operated hydraulic cutting tool 45 mm dia.



- ▶ Cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ Extremely sturdy design

### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data		
Cutting range	max. 45 mm dia.	
Cutting force	60 kN	
Length	560 mm	
Weight	4.9 kg	
Ambient temperature	-20 °C up to +40 °C	
Item	Part No.	
Hand-operated hydraulic cutting tool 45 mm dia.	<b>HSG45</b>	
Scope of supply	Part No.	Page
Steel carrying case for HSG 45 or HSG 50	MK50	
Accessories		Page
Outer fixed blade	ESG45EF	
Inner moving blade	ESG45ES1	



### HSG 55 Hand-operated hydraulic cutting tool 55 mm dia.



- ▶ Cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ Maximum performance thanks to 120 kN cutting force

#### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data		
Cutting range	max. 55 mm dia.	
Cutting force	120 kN	
Length	approx. 605 mm	
Weight	7.3 kg	
Ambient temperature	-20 °C up to +40 °C	
Item	Part No.	
Hand-operated hydraulic cutting tool 55 mm dia.	<b>HSG55</b>	
Scope of supply	Part No.	Page
Steel carrying case for HSG 55	MKHSG55	
Accessories	Page	
Outer fixed blade	ESG55EF	
Inner moving blade	ESG55ES	

### HSG 85/2 Hand-operated hydraulic cutting tool 85 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Large cutting range
- ▶ High user safety owed to cutting head with bolt interlock

#### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete

Technical data		
Cutting range	max. 85 mm dia.	
Cutting force	60 kN	
Length	approx. 677 mm	
Weight	5.9 kg	
Ambient temperature	-20 °C up to +40 °C	
Item	Part No.	
Hand-operated hydraulic cutting tool 85 mm dia.	<b>HSG852</b>	
Scope of supply	Part No.	Page
Steel carrying case for HSG 85	MK852	
Accessories	Page	
Outer fixed blade	ESG85EF1	
Inner moving blade	ESG85ES1	











# EXPAND YOUR APPLICATIONS

The correct cutting head creates a host of potentials. Get your pump ready for every application. Klauke cutting heads can be flexibly combined with Klauke system pumps (see page 484) to offer you an individual solution for every challenge.



4

## ► Improved cutting using the right cutting heads.

Tool		Design		Opening width	Cutting force kN	Application				Feature
		Open head	Closed head			Cu / Al*	Al / St (ACSR)	Cu / Al, solid	Steel, solid	
SDG 45			✓	45	60	✓	✓	✓	✓	Especially for Al/St wires to 45 mm dia. and St, solid.
SDG 55			✓	55	120	✓	✓	✓	✓	With 120 kN cutting force, for all cables and Al/St ropes up to 55 mm diameter.
SDK 65		✓		65	42	✓				Ideal for cutting earth cables up to 65 mm diameter.
SDG 85/2			✓	85	60	✓				For cutting copper and aluminium cables up to 85 mm diameter.
SDK 85		✓		85	30	✓				For cutting telecommunication and earth cables up to 85 mm diameter.
SDG 105			✓	105	120	✓		✓		Very wide cutting range up to 105 mm - also for armoured cables diameter.
SDK 105		✓		105	74	✓				Also for fine stranded cables up to 105 mm diameter.
SDK 120		✓		120	55	✓				Extremely broad cutting range up to 120 mm diameter.

\* This column also includes Cu / Al multi-stranded and Cu / Al with sheet metal and wire armouring.

\*\* The exact cutting performance depends on the type of cable or wire.



## Cutting

Hydraulic cutting heads and cutting systems

### SDG 45 Hydraulic cutting head 45 mm dia.



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel

#### Characteristics

- Closed head with bolt interlock, flip open jaws
- Head with quick coupling, 360° rotatable
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data		
Cutting range	max. 45 mm dia.	
Cutting force	60 kN	
Operating pressure	max. 700 bar	
Length	340 mm	
Weight	3.8 kg	
Item	Part No.	
Hydraulic cutting head 45 mm dia.	<b>SDG45</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196
Accessories	Page	
Inner fixed blade	ESG45ES1	
Outer moving blade	ESG45EF	

## SDG 55 Hydraulic cutting head 55 mm dia.



- ▶ High cutting force cuts armoured copper and aluminium cables and Al/St cables (ACSR)
- ▶ Also suitable for round material made of Al, Cu and steel
- ▶ 120 kN cutting force for maximum output

### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Ergonomic handling through grip

Technical data		
Cutting range	max. 55 mm dia.	
Cutting force	120 kN	
Operating pressure	max. 700 bar	
Length	380 mm	
Weight	5.6 kg	
Item	Part No.	
Hydraulic cutting head 55 mm dia.	<b>SDG55</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196
Accessories	Page	
Inner moving blade	ESG55ES	
Outer fixed blade	ESG55EF	

## SDK 65 Hydraulic cutting head 65 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armoring (depending on cable type)
- ▶ Also suitable for fine-stranded cables (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles
- ▶ Improved cutting characteristics due to new cutting geometry

### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data		
Cutting range	max. 65 mm dia.	
Cutting force	42 kN	
Operating pressure	max. 700 bar	
Length	425 mm	
Weight	4.7 kg	
Item	Part No.	
Hydraulic cutting head 65 mm dia.	<b>SDK65</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196
Accessories	Page	
Replacement blade	ES65E	





### SDG 85/2 Hydraulic cutting head 85 mm dia.



- ▶ High user safety owed to cutting head with bolt interlock
- ▶ Exceptionally light and compact design
- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)

#### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Simple handling

Technical data		
Cutting range	max. 85 mm dia.	
Cutting force	60 kN	
Operating pressure	max. 700 bar	
Length	445 mm	
Weight	4.3 kg	
Item	Part No.	
Hydraulic cutting head 85 mm dia.	<b>SDG852</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196
Accessories	Page	
Inner moving blade	ESG85ES1	
Outer fixed blade	ESG85EF1	

### SDK 85 Hydraulic cutting head 85 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Suitable for fine-stranded cable and telecommunication cable (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles
- ▶ Improved cutting characteristics due to new cutting geometry

#### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- Uniform cut by knife guide

Technical data		
Cutting range	max. 85 mm dia.	
Cutting force	30 kN	
Operating pressure	max. 700 bar	
Length	450 mm	
Weight	5.2 kg	
Item	Part No.	
Hydraulic cutting head 85 mm dia.	<b>SDK85</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196
Accessories	Page	
Replacement blade	ES85E	

## SDG 105 Hydraulic cutting head 105 mm dia.



- ▶ Cuts copper and aluminium cables with armouring
- ▶ 120 kN cutting force for extremely wide cutting range up to 105 mm dia.

### Characteristics

- Closed head with bolt interlock, 360° rotation when not pressurised
- Compact design permits cutting in confined areas
- Simple handling
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data		
Cutting range	max. 105 mm dia.	
Cutting force	120 kN	
Operating pressure	max. 700 bar	
Length	432 mm	
Weight	7.7 kg	
Item	Part No.	
Hydraulic cutting head 105 mm dia.	<b>SDG105</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	196
Accessories	Page	
Inner moving blade	ESG105ES	
Outer fixed blade	ESG105EF	

## SDK 105 Hydraulic cutting head 105 mm dia.



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Extremely wide cutting range up to 105 mm dia., also for fine-stranded cables (depending on cable type)
- ▶ Safe operations due to high ground stability by double handles

### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results
- High stability due to double grip

Technical data		
Cutting range	max. 105 mm dia.	
Cutting force	74 kN	
Operating pressure	max. 700 bar	
Length	510 mm	
Weight	7.7 kg	
Item	Part No.	
Hydraulic cutting head 105 mm dia.	<b>SDK105</b>	
Scope of supply	Part No.	Page
Carrying bag	TT4	196
Accessories	Page	
Replacement blade	ES105E	



## Cutting

Hydraulic cutting heads and cutting systems

### SDK 120 Hydraulic cutting head 120 mm dia.



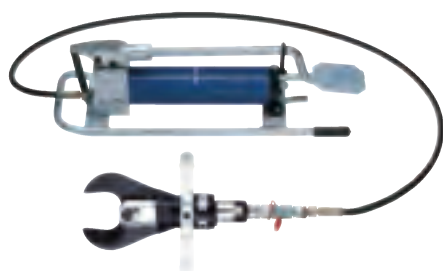
- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Extremely wide cutting range up to 120 mm dia., also for fine-stranded cables (depending on cable type)
- ▶ Exceptionally light and compact design
- ▶ Safe operations due to high ground stability by double handles

#### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- High stability due to double grip
- For connecting to hydraulic pumps with 700 bar operating pressure for best possible results

Technical data		
Cutting range	max. 120 mm dia.	
Cutting force	55 kN	
Operating pressure	max. 700 bar	
Length	538 mm	
Weight	8.7 kg	
Item	Part No.	
Hydraulic cutting head 120 mm dia.	<b>SDK120</b>	
Scope of supply	Part No.	Page
Carrying bag	TT4	196
Accessories	Page	
Replacement blade	ES120E	

### AS 65 FHP Hydraulic cutting tool with foot pump 65 mm dia.



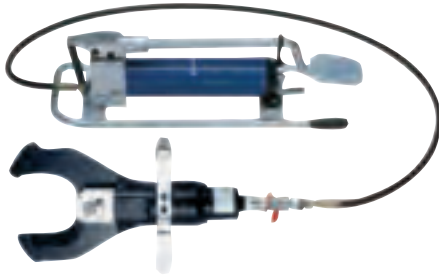
- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Also suitable for fine-stranded cable
- ▶ Safe operations due to high ground stability by double handles
- ▶ Foot pump with two-stage hydraulics
- ▶ Improved cutting characteristics thanks to new cutting geometry

#### Characteristics

- Open head with quick coupling, 360° rotation when not pressurised
- Manual retract as required
- Hydraulic hose, 2 m

Technical data		
Cutting range	max. 65 mm dia.	
Operating pressure	max. 700 bar	
Weight	16.7 kg	
Item	Part No.	
Hydraulic cutting tool with foot pump 65 mm dia.	<b>AS65FHP</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Steel carrying case	MKU	196
Accessories	Part No.	Page
Replacement blade	ES65E	
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497

**AS 105 FHP / AS 120 FHP Hydraulic cutting tools for foot pump 105 and 120 mm dia.**



- ▶ Cuts copper and aluminium cables with lightweight steel armouring (depending on cable type)
- ▶ Suitable for fine-stranded cable and telecommunication cable
- ▶ Safe operations due to high ground stability by double handles
- ▶ Wide cutting range also for fine-stranded cables

**Characteristics**

- Foot pump with two-stage hydraulics
- Open head with quick coupling, 360° rotation when not pressurised
- Manual retract as required
- Hydraulic hose, 2 m

**Technical data**

Cutting range	AS 105 FHP: max. 105 mm dia., AS120FHP: max. 120 mm dia.
Cutting force	AS105FHP: 74 kN, AS120FHP: 55 kN
Operating pressure	max. 700 bar
Weight	AS105FHP: 19.7 kg, AS120FHP: 20.7 kg

Item	Part No.	
Hydraulic cutting tool with foot pump 105 mm dia.	<b>AS105FHP</b>	
Hydraulic cutting tool with foot pump 120 mm dia.	<b>AS120FHP</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Steel carrying case	MKU	196
Accessories	Part No.	Page
Replacement blade	ES105E	
Replacement blade	ES120E	
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497



# OUR COMMITMENT TO YOUR SAFETY - SAFETY CUTTERS

Klauke safety cutters cut reliably with BG-tested safety. 10m hydraulic safety hose creates adequate distance to possible hazard sources. Non-conductive hydraulic oil ensures the highest level of safety. Our cutters protect you up to a rated voltage of 60 kV.



## ► Safe in any application

Choose the device - foot pump, battery-powered hydraulics or portable pump unit - that suits your work. Safety in every situation.

- BG-tested safety up to 60 kV rated voltage for CU/AL cables without steel armoring
- The right safety cutters for application
- 10 m hydraulic hose for adequate distance to the hazard source

## ► Free head selection

Klauke safety cutters are available with various open and closed heads. Choose the right head for your application.

- The right head for every application
- Opening width up to 120 mm
- All heads rotate through 360°

## SSG Hydraulic safety cutter with foot pump to max. 105 mm dia.



- ▶ Safety cutter for safe cutting of live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ▶ Single-core lives cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz

### Characteristics

- Two-stage hydraulics
- Manual retract as required
- The cutting head is generally delivered including safety hydraulic hose (10 m)

Technical data	SSG65	SSGG85	SSG105	SSGG105
Head type	open (SSK65)	closed (SSKG85)	open (SSK105)	closed (SSGG105)
Cutting range	max. 65 mm dia. (depending on cable type)	max. 85 mm dia. (depending on cable type)	max. 105 mm dia. (depending on cable type)	max. 105 mm dia. (depending on cable type)
Operating pressure	625 bar	625 bar	625 bar	625 bar
Hydraulic oil	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11
Weight	16 kg	16 kg	19 kg	19 kg
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C

Item	Part No.	
Hydraulic safety cutting unit with foot pump max. 65 mm dia.	<b>SSG65</b>	
Hydraulic safety cutting unit with foot pump max. 85 mm dia.	<b>SSGG85</b>	
Hydraulic safety cutting unit with foot pump max. 105 mm dia.	<b>SSG105</b>	
Hydraulic safety cutting unit with foot pump max. 105 mm dia.	<b>SSGG105</b>	
Scope of supply	Part No.	Page
Earthing kit	EG1	
Steel carrying case	MKSSG	
Accessories	Part No.	Page
Heat protection cover 1.8 m x 1.8 m	<b>HSD1</b>	
Heat protection cover 1.2 m x 0.9 m	<b>HSD2</b>	
Heat protection cover 0.45 m x 0.6 m	<b>HSD3</b>	

Replacement blade for	SSG65	SSGG85	SSG105	SSGG105
ES65E	•			
ES105E			•	
ESG85EF1		•		
ESG85ES1		•		
ESG105EF				•
ESG105ES				•

Replacement cutting head	SSG65	SSGG85	SSG105	SSGG105
SSK65	•			
SSGG85		•		
SSG105			•	
SSGG105				•

## ESSG Battery powered hydraulic safety cutter to max. 105 mm dia.



- ▶ Safety cutter for cutting live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ▶ Single-core live cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz
- ▶ Powerful 3.3 Ah Li-Ion battery

### Characteristics

- 2-stage hydraulic system with fast feed and power stroke
- Electronic control
- Multifunction LED for maintenance display and charge status display of the battery
- LED display for service interval after 250 cuts
- The cutting head is generally delivered including safety hydraulic hose (10 m)

Technical data	ESSG65L	ESSGG85L	ESSG105L
Head type	open (SSK65)	closed (SSK85)	open (SSK105)
Cutting range	max. 65 mm dia. (depending on cable type)	max. 85 mm dia. (depending on cable type)	max. 105 mm dia. (depending on cable type)
Cutting force	35 kN	60 kN	80 kN
Cutting time	approx. 21 s 40 s	approx. 21 - 40 s	approx. 21 - 40 s
Operating pressure	625 bar	625 bar	625 bar
Battery voltage	18 V	18 V	18 V
Battery capacity	3.3 Ah, Li-Ion	3.3 Ah, Li-Ion	3.3 Ah, Li-Ion
Charging time	60 min.	60 min.	60 min.
Hydraulic oil	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11	Special oil Rivolta S.B.H.11
Weight	10.12 kg	9.98 kg	13.13 kg
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C

Item	Part No.	
Battery powered hydraulic safety cutter, max. 65 mm dia.	<b>ESSG65I</b>	
Battery powered hydraulic safety cutter, max. 85 mm dia.	<b>ESSGG85L</b>	
Battery powered hydraulic safety cutter, max. 105 mm dia.	<b>ESSG105L</b>	
Scope of supply	Part No.	Page
Battery 18 V / 3.3 Ah, Li-Ion (54 Wh)	RAL3	491
Charger for 18 V Li-Ion batteries	LGL3	494
Plastic case for ESSG65L and ESSG105L	KKESSGL	
Plastic case for ESSGG85L	KKESSGG85L	
Earthing kit	EG1	
Accessories	Part No.	Page
Heat protection cover 1.8 m x 1.8 m	<b>HSD1</b>	
Heat protection cover 1.2 m x 0.9 m	<b>HSD2</b>	
Heat protection cover 0.45 m x 0.6 m	<b>HSD3</b>	

Replacement blade for	ESSG65L	ESSGG85L	ESSG105L	
ES65E	•			
ES105E			•	
ESG85EF1		•		
ESG85ES1		•		
Replacement cutting head	SSG65	SSG85	SSG105	SSGG105
SSK65	•			
SSGG85		•		
SSG105			•	
SSGG105				•





## ASSG Battery powered hydraulic safety cutter to max. 120 mm dia.



- ▶ DGVV-approved safety cutter for cutting live Cu/Al cables without steel armouring which, in case of a failure, may carry voltages of up to 60 kV
- ▶ Single-core live cables without steel armouring can be cut under voltage of up to 110 kV/60 Hz
- ▶ Very wide opening width to 120 mm
- ▶ Safe and fast operations by using remote control and 10 m long safety hydraulic hose

### Characteristics

- 2-stage hydraulic system with fast feed and power stroke
- Quick motor stop for high user safety
- Electronic control
- DGVV-tested
- 360° rotating connection as with the cutting head
- Battery-powered pump filled with non-conductive oil
- Remote control for increased comfort and safety
- Two powerful 5 Ah, 18 V Lithium-Ion batteries (one battery is always there as a replacement)
- Sturdy housing from impact-resistant, fibreglass reinforced polyamide
- The cutting head is generally delivered including safety hydraulic hose (10 m)
- Multi-function display for pressure testing, power consumption and service interval

### Additional information

- Complete system, different variants available depending on cutting head

Technical data	ASSG65L	ASSGG85L	ASSG105L	ASSGG105L	ASSG120SL
Head type	open	closed	open	closed	open
Cutting range	max. 65 mm dia.	max. 85 mm dia.	max. 105 mm dia.	max. 105 mm dia.	max. 120 mm dia.
Operating pressure	max. 630 bar	max. 630 bar	max. 630 bar	max. 630 bar	max. 630 bar
Battery voltage	18 V	18 V	18 V	18 V	18 V
Battery capacity	2 x 5 Ah Li-Ion	2 x 5 Ah Li-Ion	2 x 5 Ah Li-Ion	2 x 5 Ah Li-Ion	2 x 5 Ah Li-Ion
Charging time	45 min.	45 min.	45 min.	45 min.	45 min.
Max. oil volume	approx. 750 ml	approx. 750 ml	approx. 750 ml	approx. 750 ml	approx. 750 ml
Hydraulic oil	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15	Shell Naturelle HF-E 15
Weight incl. battery	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg	2 batteries approx. 6.4 kg
Ambient temperature	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C	-20 °C up to +40 °C
Dimension	330 x 160 x 280 mm	330 x 160 x 280 mm	330 x 160 x 280 mm	330 x 160 x 280 mm	330 x 160 x 280 mm

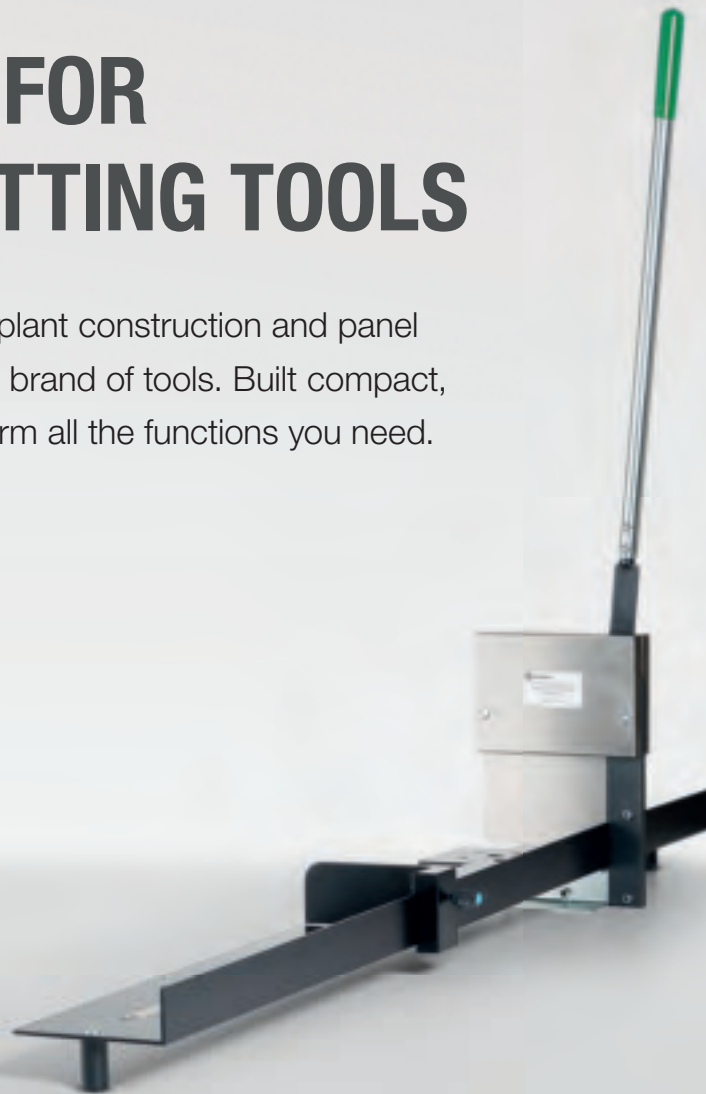
Item	Part No.		
Battery powered hydraulic safety cutter, max. 65 mm dia.	<b>ASSG65L</b>		
Battery powered hydraulic safety cutter, max. 85 mm dia.	<b>ASSGG85L</b>		
Battery powered hydraulic safety cutter, max. 105 mm dia.	<b>ASSG105L</b>		
Battery powered hydraulic safety cutter, max. 105 mm dia.	<b>ASSGG105L</b>		
Battery powered hydraulic safety cutter, max. 120 mm dia.	<b>ASSG120SL</b>		
Scope of supply	Part No.	Quantity	Page
Makita battery 18 V / 5.0 Ah, Li-Ion (90 Wh)		2	492
Makita quick-charger for 18 V Li-Ion battery	LGL1	1	494
Earthing kit	EG1	1	
Carrying strap with shoulder padding	TG3	1	495
Remote control with 1.5 m cable	HTA4	1	499
Plastic case	KKASSGL	1	
Plastic case for ASSG105L and ASSG120SL	KKSSK120S	1	





# 5 PROFILES FOR SPECIAL CUTTING TOOLS

For challenging operations in plant construction and panel building, we use the Greenlee brand of tools. Built compact, the high-quality devices perform all the functions you need.



## ► DIN profile rails

So you retain the profile as you cut:  
DIN profile rail cutter from Greenlee.

- Burr-free cutting to length and punching of all common DIN profiles
- Hand lever with optimum force transmission
- High-quality cutting blades with hardly any wear
- Integrated locating holes simplifies mounting on the workbench
- Easily replaceable cutting plate cassette

## ► Cutting values

Work precisely with our wiring conduit cutter.

- For halogen-free cable conduit up to 125 mm wide
- Maintenance-free mechanism
- Measuring rule enables precise cutting to length
- High level of operator safety while working due to fully-covered cutting blades

## ► Always on the right track: Wiring conduit cutter

Everything fits well, from the very first setting. The measuring cutter simplifies precision cutting to length. The cutting blades are covered for safety. They cut halogen-free cable conduit up to 125 mm wide as accurately as you want. High-quality

materials and optimised processing ensure safety and reliability: The cutting blades are practically wear-free, the cutting mechanism is entirely maintenance-free. No worries about these tools. You concentrate fully on the task.

## DIN profile conductor cutting and punching tool

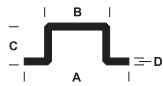


- ▶ For burr-free cutting and punching
- ▶ Less effort needed
- ▶ Includes die plate holder with 5 profiles

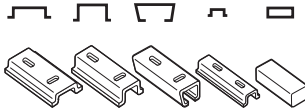
### Suitable for

- Punches vertical and horizontal mounting holes 6.4 x 12.0 mm
- With holes for workbench assembly

Item	Part No.
DIN profile conductor cutting and punching tool	<b>50115413</b>



A - 35.0 mm	A - 35.0 mm	A - 34.0 mm	A - 15.0 mm	A - 10.0 mm
B - 27.0 mm	B - 27.0 mm	B - 15.0 mm	B - 10.5 mm	C - 3.0 mm
C - 7.5 mm	C - 15.0 mm	C - 15.0 mm	C - 5.5 mm	
D - 1.0 mm	D - 1.5 mm	D - 1.0 mm		



## Profile conductor cutter Compact



- ▶ For burr-free cutting to length
- ▶ Less effort needed
- ▶ Includes die plank holder with 2 profiles

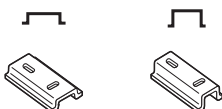
### Suitable for

- With holes for workbench assembly
- Manual operation

Item	Length of rail guide mm	Length of hand lever mm	Part No.
Profile conductor cutter Compact	1000	850	<b>52055684</b>



A - 35.0 mm	A - 35.0 mm
B - 27.0 mm	B - 27.0 mm
C - 7.5 mm	C - 15.0 mm
D - 1.0 mm	D - 1.5 mm



## Wiring conduit cutter

**NEW**



- ▶ Burr-free cutting even with halogen-free cable ducts
- ▶ 90° angle cutting
- ▶ Protects from injury when not in use

### Characteristics

- Simple workbench mounting
- Maintenance free
- Cutting mechanism completely protected

### Suitable for

- Standard and halogen-free plastic profile with 2.5 mm wall thickness and up to 125 mm width

Technical data		
Cutting width	125 mm	
Dimension	1460 x 250 x 990 mm	
Weight	10.5 kg	
Length of rail guide	1000 mm	
Length of hand lever	600 mm	
Wiring duct (wall thickness)	2.5 mm	
Item	Part No.	
Wiring conduit cutter	<b>50125700</b>	
Scope of supply	Part No.	Page
Hand lever		
Fixing device	50115537	
Measurement scale		

## Cutting die



**K18**  
SERIE

- ▶ For multi-stranded Al and Cu cables without armouring

Item	Cutting range	Part No.
Cutting die, 18 mm	18 mm	<b>S18</b>



# QUICK AND CLEAN.

Greenlee tools for punching - exactly the right solution for accurate operations. Extreme reliability quickly achieves a burr-free result.





# Punching

<b>Round and special shape punches</b>	<b>416</b>
Standard punch systems	418
Slug Buster® punch systems	420
Slug-Splitter® punch system for stainless steel	421
Speed-Punch™ punch system	422
Special shape punches	425

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<b>Punching tools and sets</b>	<b>434</b>
Speed Nut	436
Mechanical and hydraulic punching tools	436
Battery powered punching tool LS 60-L	438
Battery powered punching tool LS 50 Flex	439
Battery powered universal tools	440
Slug Buster® punch sets	447
Speed-Punch™ punch sets	449
Slug-Splitter® punch sets	451
Slug Buster® punching tools and sets	452

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<b>Hole saws</b>	<b>456</b>
HSS bi-metal hole saws	458

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<b>Bits and step bits</b>	<b>464</b>
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# PATENTED CLEAN SOLUTION - ROUND AND SPECIAL SHAPE PUNCH

Speed and innovation set our Greenlee products apart. With Speed Punch and Slug Splitter, you can work quickly and precisely in any application.

Our commitment to your work.



## In brief

- ▶ Long service life
- ▶ For aluminium and steel to 3.5 mm thick
- ▶ Threadless profile for quick replacement
- ▶ No jamming of the slug
- ▶ Threads require no maintenance

**▶ Quick punching with Speed Punch**

We make you faster. Time-saving operations are really easy with the Speed Punch profile. The threadless stamp profile is quickly changed via clamp technology - no more screwing the counter nut off and on! Which also means: Threads are care and maintenance-free. Punching is up to three-times quicker than before.

- Quick punching system: Punching up to 3 x quicker
- For aluminium and steel up to 3.5 mm thick
- Innovative clamp technology
- No more screwing the counter nut off and on
- Threads are now care and maintenance-free

**Speed Punch video:**  
[youtube.com/watch?v=0LJ7mHEgeow](https://youtube.com/watch?v=0LJ7mHEgeow)



**▶ Slug Splitter: Automatic clean punching**

We make it easy for you. The Slug Splitter separates punched slug remnants. You can fully concentrate on punching stainless steel, without delays due to time-consuming removal of punched slug remnants.

- Splits the punches into two parts for direct removal of punch slug remnants
- Longest service life due to high-quality stainless steel
- Slug-Splitter: Suitable for use with all Greenlee punching hydraulics



**▶ Square punch: Special-shaped punches**

Displays and panels require appropriate square-shaped punching. The special punching stamp from Greenlee punches stainless steel and mild steel without leaving burrs. High-quality tool steel meets your requirements - in proven Greenlee quality.

- For mild steel (St37), plastic and aluminium to 3.0 mm thick and V2A stainless steel up to 1.5 mm
- Burr-free punching of display panels
- High-quality tool steel







### Standard punch systems



► Ball bearing draw stud reduces operating force

#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Manual / hydraulic

#### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm diameter 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

#### Scope of supply

- Complete system including punch, die and draw stud for manual operation

#### Additional information

- \*50042181 Draw stud without ball-bearing

Punch size			Max. Material thickness	Individual parts for manual operation					Draw studs + Accessories for hydraulic units				Complete unit
True dimension	Standard size			Punch	Die	Draw stud with ball bearing	Ball bearing nut	Spacer	Draw studs		Accessories		
	mm	Pg	ISO						mm (St37)	Hand hydraulic 7804E, 7904E	Battery powered punch LS 50 FLEX LS 60 L	Hydr. pump 50159062 50250973	Adapter sleeves 19,0 / 28,6
12.7	Pg 7		1.5	50069969	50042351	50042181							<b>50024086</b>
14.3			1.5	50042300	50042297	50042181							<b>50024337</b>
15.2	Pg 9		2.0	50213164	50320025	50000420							<b>50211153</b>
15.9			1.5	50042238	50042246	50042181						50339672	<b>50024094</b>
16.2		ISO 16	2.0	50351931	50351621	50000420			51300430		51300430	50339672	<b>50351923</b>
18.6			2.0	50177001	50320033	50000420			51300430		51300430	50339672	<b>50188860</b>
19.1			2.0			50000420			51300430		51300430	50339672	<b>50206672</b>
20.4	Pg 13	ISO 20	2.0	50176978	50320041	50000420			51300430		51300430	50339672	<b>50188879</b>
20.6			2.0	50042262	50042254	50000420			51300430		51300430	50339672	<b>50206680</b>
22.5	Pg 16		3.5	51040060	51147220	50000420			51300430		51300430	50339672	<b>50225634</b>
23.8			2.0	50042386	50042378	50000420			51300430		51300430	50339672	<b>50253417</b>
25.4		ISO 25	2.0	50039865	50351648	50000420			51300430		51300430	50339672	<b>50206702</b>
27.0			2.0	50042408	50042424	50000420			51300430		51300430	50339672	<b>50253425</b>
28.3	Pg 21		3.5	51040080	51069720	50040405			51300430		51300430	50339672	<b>50225642</b>
28.3	Pg 21		2.0	50368826	50320068	50000420			51300430		51300430	50339672	<b>50369105</b>
28.6			2.0	50039903	50039911	50000420			51300430		51300430	50339672	<b>50206710</b>
30.5			1.5	50362828	50362798	50000420			51300430		51300430	50339672	<b>50365061</b>
31.8			1.5	50040022		50000420			51300430		51300430		<b>50206737</b>
32.5	Pg 32		3.5	50244590	50351680	50040405			50318721		50318721		<b>50244760</b>
33.4			1.5	50065874	50065866	50000420			50318721		50318721		<b>50253441</b>
34.6			3.5	50040103	50040111	50040405			50318721		50318721		<b>50225650</b>
34.9			3.5	50047345	50047353	50040405			50318721		50318721		<b>50254278</b>
37.0	Pg 29		3.5	50183311	50320084	50040405			50318721		50318721		<b>50188909</b>
38.1			3.5	50047361	50070444	50040405			50318721		50381721		<b>50254286</b>
40.5		ISO 40	3.5	50244620	50351591	50040405			50318721		50381721		<b>50244779</b>

Punch size			Max. Material thickness mm	Individual parts for manual operation					Draw studs + Accessories for hydraulic units				Complete unit	
True dimension	Standard size			mm (St37)	Punch	Die	Draw stud with ball bearing	Ball bearing nut	Spacer	Draw studs		Accessories		
	mm	Pg	ISO							Hand hydraulic 7804E, 7904E	Battery powered punch LS 50 FLEX LS 60 L	Hydr. pump 50159062 50250973	Adapter sleeves 19,0 / 28,6	Part No.
41.3			3.5	50042513	50042505	50040405			50318721		50381721		<b>50253492</b>	
43.2			3.5	51069740	50040138	50040405			50318721		50318721		<b>50225669</b>	
44.5			3.5	50042572	50042564	50040405			50318721		50318721		<b>50253506</b>	
47.0			3.5	50176870	51320090	50040421			50318721		50318721		<b>50188917</b>	
47.6			3.5	50042483	50042491	50040421			50318721		50318721		<b>50253514</b>	
49.6			3.5	50069780	50040618	50040421			50318721		80318721		<b>50225677</b>	
50.8		ISO 50	3.5	50042327	50351613	50040421			50318721		50318721		<b>50206761</b>	
54.0	Pg 42		3.5	50042459	50361732	50040421			50318721		50318721		<b>50206788</b>	
57.2			3.5	50040588	50040596	50040421			50318721		50318721		<b>50253603</b>	
60.0	Pg 48		3.5	50176900	50320114	50040421			50318721		50318721		<b>50188925</b>	
61.5			3.5	50040626	50040634	50040421			50318721		50318721		<b>50225685</b>	
63.5		ISO 63	3.5	50042343	50042335	50041886			50318721		50318721		<b>50206796</b>	
66.7			3.5	50042521	50069977	50041886	50041878				52045040	52045040	<b>50212141</b>	
69.9			3.5	50042475	50042467	50041886	50041878				52045040	52045040	<b>50253611</b>	
70.6			3.5	50024450	50024434	50040421	50041878				52045040	52045040	<b>50253832</b>	
74.0			3.5	50041754	50041770	50041886	50041878				52045040	52045040	<b>50199757</b>	
76.2			3.5	50042599	50042580	50041886	50041878				52045040	52045040	<b>50253727</b>	
79.4			3.5	50063634	50063626	50041886	50041878				52045040	52045040	<b>50254030</b>	
82.0			3.5	50189050	50189069	50041886	50041878				52045040	52045040	<b>50186353</b>	
89.8			3.5	50041800	50041835	50041886	50041878				52045040	52045040	<b>50199765</b>	
95.3			3.5	50052659	50052667	50041886	50041878				52045040	52045040	<b>50212168</b>	
102.7			3.5	50046535	50046527	50046799	50046853	50046861			52045040	52045040	50031708	<b>50199773</b>
115.4			3.5	50046551	50046543	50046799	50046853	50046861			52045040	52045040	50031708	<b>50199781</b>
120.0			3.5	50214896	50214918	50046799	50046853	50046861			52045040	52045040	50031708	<b>50215191</b>
143.7			3.5	50054473	50054481	50046799	50046853	50046861			52045040	52045040	50031708	<b>50199803</b>





### Slug Buster® punch system



- ▶ For quick, clean, effortless and burr-free holes
- ▶ Split slugs fall free and can be removed easily

#### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

#### Operation

- Manual / hydraulic

#### Predrilling






- Draw stud 9.5 mm dia., pilot drill 9.7 mm diameter 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

#### Scope of supply

- Complete system including punch, die and draw stud for manual operation

#### Additional information

- 50042181 Draw stud without ball-bearing

Punch size			Max. Material thickness	Individual parts for manual operation			Draw studs + Accessories for hydraulic units		Complete unit
True dimension	Standard size								
mm	Pg	ISO	mm (St37)	Punch	Die	Draw stud with ball bearing	Hand hydraulic 7804E 7904E	Battery powered punch LS 50 FLEX LS60 L	Part No.
12.5	Pg 7	ISO 12	1.5	50067281	50067290	50042181			<b>50067273</b>
15.2	Pg 9		2.0	50319698	50320025	50000420	51300430	51300430	<b>50319892</b>
16.2		ISO 16	2.0	50351630	50351621	50000420	51300430	51300430	<b>50351770</b>
18.6	Pg 11		2.0	50319701	50320033	50000420	51300430	51300430	<b>50319906</b>
20.4	Pg 13	ISO 20	2.0	50319710	50320041	50000420	51300430	51300430	<b>50319914</b>
22.5	Pg 16		2.0	50317563	51147220	50000420	51300430	51300430	<b>50319620</b>
25.4		ISO 25	2.0	50351656	50351648	50000420	51300430	51300430	<b>50351788</b>
28.3	Pg 21		3.0	50317571	51069720	50040405	50318721	52045040	<b>50319639</b>
28.3	Pg 21		2.0	50319736	50320068	50000420	51300430	51300430	<b>50319930</b>
30.5			2.0	50362844	50362798	50000420	51300430	51300430	<b>50365088</b>
30.5			3.5	50602373	50362780	50040405	50318721	52045040	<b>50602462</b>
32.5		ISO 32	3.5	50351699	50351680	50040405	50318721	52045040	<b>50351796</b>
34.6			3.5	50317580	50040111	50040405	50318721	52045040	<b>50319647</b>
37.0	Pg 29		3.5	50319752	50320084	50040405	50318721	52045040	<b>50319957</b>
40.5		ISO 40	3.5	50351583	50351591	50040405	50318721	52045040	<b>50351800</b>
43.2			3.5	50317598	50040138	50040405	50318721	52045040	<b>50319655</b>
47.0	Pg 36		3.5	51319760	51320090	50040421	50318721	52045040	<b>50319965</b>
49.6			3.5	50317601	50040618	50040421	50318721	52045040	<b>50319663</b>
50.8		ISO 50	3.5	50351605	50351613	50040421	50318721	52045040	<b>50351818</b>
54.0	Pg 42		3.5	50361724	50361732	50040421	50318721	52045040	<b>50361716</b>
60.0	Pg 48		3.5	50319787	50320114	50040421	50318721	52045040	<b>50319981</b>
61.5			3.5	50317610	50040634	50040421	50318721	52045040	<b>50319671</b>
64.0		ISO 63	3.5		50351664	50040421	50318721	52045040	<b>50351826</b>

## SLUG SPLITTER® punch system (stainless steel)



- ▶ Special alloy for maximum service life
- ▶ Split slugs fall free and can be disposed of easily

### Suitable for

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling




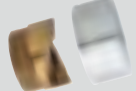
- Draw stud 11.1 mm dia., pilot drill 12.7 mm diameter 50344102  
draw stud 19.0 mm dia., pilot drill 20.5 mm diameter 50344030

### Scope of supply

- Complete system including punch and die

### Additional information

- \* = Slug Splitter SC® - self-centring

Punch size			Max. Material thickness	Individual parts for manual operation		Draw studs	Complete unit
True dimension	Standard size						
mm	Pg	ISO	mm (V2A)	Punch	Die	Pump, hand and battery powered	Part No.
15.2	Pg 9		2.5	50311174	50311263	50294512	<b>50069519</b>
16.2		ISO 16	2.5	50045997	50045989	50294512	<b>50069527</b>
18.6	Pg 11		2.5	50311190	50311280	50294512	<b>50069535</b>
20.4	Pg 13	ISO 20	2.5	50311204	50311298	50294512	<b>50069543</b>
22.5	Pg 16		3.5	50281542	50281550	50294512	<b>50069551</b>
25.4		ISO 25	3.5	50046020	50046012	50294512	<b>50069560</b>
28.3	Pg 21		3.5	50281569	50281577	50294520	<b>50069578</b>
30.5			3.5	50364901	50364898	50294520	<b>50069586</b>
32.5		ISO 32	3.5	50046055	50046039	50294520	<b>50069594</b>
34.6			3.5	50281585	50281593	59294520	
37.0	Pg 29		3.5	50311220	50311352	50294520	<b>50069608</b>
40.5		ISO 40	3.5	50046080	50046071	50294520	<b>50069616</b>
43.2			3.5	50281607	50281615	50294520	
47.0	Pg 36		3.5	50311239	50311310	50294520	<b>50069624</b>
49.6			3.5	50281623	50281631	50294520	
50.8		ISO 50	3.5	50046110	50046098	50294520	<b>50069632</b>
54.0	Pg 42		3.5	50311247	50311328	50294520	<b>50069640</b>
60.0	Pg 48		3.5	50311255	50311336	50294520	<b>50069659</b>
61.5			3.5	50281658	50281666	50294520	
64.0		ISO 63	3.5	50046144	50046136	50294520	<b>50069667</b>

## GREAT COLLABORATION!

Use our Kwik Stepper™ step bits for pre-drilling (page 466). They are matched to all our draw studs.





# Punching

Round and special shape punches

## Speed Punch™ punch system



- ▶ Innovative threadless punch profile
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia.; pilot drill 9.7 mm dia.  
draw stud 19.0 mm dia.; pilot drill 20.5 mm dia.

### Scope of supply

- Complete system including punch and die

### Additional information

- Counter nuts and draw studs must be ordered separately, they are not included in scope of supply

Punch size			Max. Material thickness	Individual parts		Draw studs	Speed lock	Complete unit
True dimension	Standard size							
mm	PG	ISO	mm (St37)	Punch	Die	(not included)	(not included)	Part No.
16.2		ISO 16	3.5	52066021	52066022	52066001	52066002	<b>52055431</b>
20.4	PG 13	ISO 20	3.5	52066023	52066024	52066001	52066002	<b>52055432</b>
22.5	PG 16		3.5	52065998	52065999	52066001	52066002	<b>52055433</b>
25.4		ISO 25	3.5	52066025	52066026	52066001	52066002	<b>52055434</b>
32.5		ISO 32	3.5	52066027	52066028	52047818	52047817	<b>52055435</b>
40.5		ISO 40	3.5	52066029	52066030	52047818	52047817	<b>52055436</b>
50.8		ISO 50	3.5	52066031	52066032	52047818	52047817	<b>52055437</b>
64.0		ISO 63	3.5	52066033	52066034	52047818	52047817	<b>52055438</b>

Accessories	Part No.	Page
Speed Punch™ Speed lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16	52055439	
Speed Punch™ Speed lock and draw stud 19.0 mm for ISO 32/40/50/63	52055440	

**Draw studs with manual drivers**

▶ High wear resistance

**Order info**

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations



Size	Part No.
28.6 x 190 mm	<b>50046799</b>



Size	Part No.
19 x 140 mm	<b>50041886</b>



Size	Part No.
9.5 x 40 mm	<b>50000420</b>

Size	Part No.
6.5 x 35 mm	<b>50042181</b>



Size	Part No.
19 x 55 mm	<b>50040405</b>





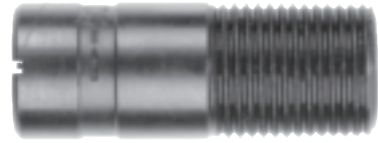
# Punching

Round and special shape punches

## Draw studs for hydraulic drivers

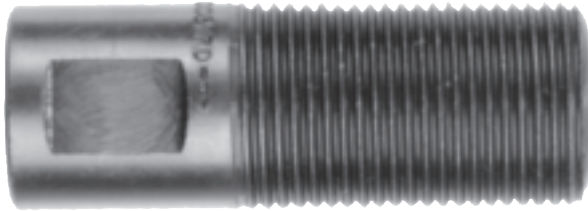
### Order info

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations



Adapter

Size	Part No.
19 x 48 mm (Innen 9.5 mm)	<b>50339672</b>
19 x 48 mm (Innen 6.3 mm)	<b>50601148</b>
19 x 48 mm (Innen 12.7 mm)	<b>50601679</b>



Size	Part No.
28.6 x 76 mm	<b>50031708</b>



Size	Part No.
9.5 x 71 mm	<b>51300430</b>



Size	Part No.
19 x 105 mm	<b>50318721</b>



Size	Part No.
19 x 140 mm for Slug Splitter®	<b>50294520</b>

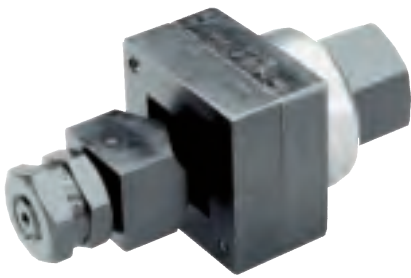


Size	Part No.
11.1 x 108 mm for Slug Splitter®	<b>50294512</b>



Size	Part No.
9.5 mm to 19 mm, 122 mm	<b>52042827</b>

## Rectangular punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm and V2A 1.5 mm
- Punching of burr-free openings

### Operation

- Manual / hydraulic

### Predrilling

- 9.7 mm dia. pilot drill 50360183
- 12.7 mm dia. pilot drill 50344102
- 15.9 mm dia. pilot drill 50344030
- 30.2 mm dia. 50364146

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

### Additional information

- \* = only for use with hydraulic punch drivers 50159062, 50250973, LS60L and LS50FLEX
- \*\* = only for use with hydraulic punch drivers 50159062, 50250973 and LS50FLEX

Punch size A x B	Max. Material thickness	Operating mode	Individual parts f. manual operation					Adapter for hydr. punch driver	Mounting hole-dia.	Complete unit
			Punch	Die	Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)							Part No.	mm	Part No.
11.1 x 22.2	1.5	Hand/hydr.	50600265	50600273	50601156	50601202	50052446	50601148	9.7	<b>50600257</b>
17.0 x 19.0	2.0	Hand/hydr.		50600303	52020113	50347330	50046381	50339672	12.7	<b>50610281</b>
19.1 x 29.0	2.0	Hand/hydr.	50600320	50600338	50601172	50601652	50602586	50601679	15.9	<b>50600311</b>
19.1 x 33.3	2.0	Hand/hydr.	50600354	50600362	50601172	50601652	50602586	50601679	15.9	<b>50600346</b>
21.9 x 25.9	2.0	Hand/hydr.	50600389	50600397	50601172	50601652	50602586	50601679	15.9	<b>50600370</b>
22.0 x 30.0	2.0	Hand/hydr.	50600419	50600427	50601172	50601652	50602586	50601679	15.9	<b>50600400</b>
22.0 x 42.0	2.0	Hand/hydr.	50600451	50600460	50601172	50601652	50602586	50601679	15.9	<b>50600435</b>
25.1 x 29.0	2.0	Hand/hydr.	50600486	50600494	50601172	50601652	50602586	50601679	15.9	<b>50600478</b>
31.8 x 35.1	2.0	Hand/hydr.	50600516	50600524	50601172	50601652	50602586	50601679	15.9	<b>50600508</b>
29.0 x 71.0	3.0	Hydr.			52045298		52045300		28.6	<b>52045296</b>
30.0 x 90.0	3.0	Hydr.			52045298		52045300		28.6	<b>52045297</b>
33.3 x 66.7	3.0	Hydr.	50600540	50600559	50601180		50602357		30.2	<b>50600532</b>
35.0 x 52.0	3.0	Hydr.	50600575	50600583	50601180		50602357		30.2	<b>50600567</b>
35.0 x 65.0	3.0	Hydr.	50600605	50600613	50601180		50602357		30.2	<b>50600591</b>
35.0 x 82.0	2.0	Hydr.*	50600630	50600648	50601180		50602357		30.2	<b>50600621</b>
35.0 x 112.0	2.0	Hydr.*	50600664	50600672	50601180		50602357		30.2	<b>50600656</b>
46.0 x 92.0	3.0	Hydr.*	50600699	50600702	50601180		50602357		30.2	<b>50600680</b>
57.2 x 88.9	3.0	Hydr.*	50600729	50600737	50601180		50602357		30.2	<b>50600710</b>
68.0x138.0	2.0	Hydr.**	50600753	50600761	50601180		50602357		30.2	<b>50600745</b>

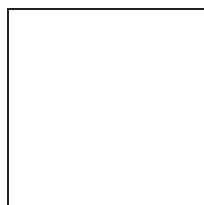
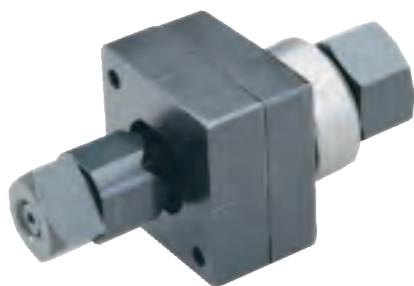




# Punching

Round and special shape punches

## Square punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm and V2A 1.5 mm
- Punching of burr-free openings

### Operation

- Manual / hydraulic

### Predrilling

- 9.7 mm dia. pilot drill 50360183
- 12.7 mm dia. pilot drill 50344102
- 15.9 mm dia. pilot drill 50344030
- 30.2 mm dia. 50364146

### Scope of supply

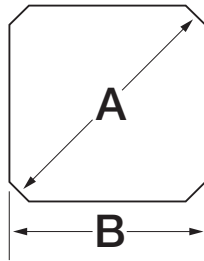
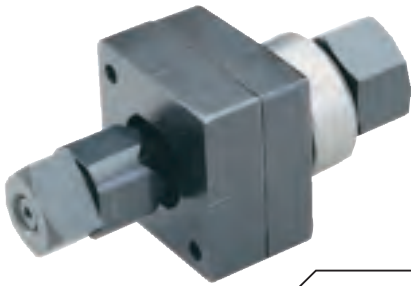
- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

### Additional information

- \* = only for use with hydraulic punch drivers 50159062, 50250973, LS60L and LS50FLEX
- \*\* = only for use with hydraulic punch drivers 50159062 and 50250973

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation					Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
mm	mm (St37)		Punch	Die	Draw studs	Ball bearing nut	Counter nut	Part No.	mm	Part No.
12.7 x 12.7	1.5	Hand/hydr.	50600028	50600036	50601156	50601202	50052446	50601148	9.5	<b>50600010</b>
15.9 x 15.9	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	<b>50610045</b>
19.1 x 19.1	2.0	Hand/hydr.	50600087	50600095	52020113	50347330	50046381	50339672	12.7	<b>50610076</b>
22.4 x 22.4	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	<b>50610106</b>
24.0 x 24.0	2.0	Hand/hydr.	50600141	50600150	52020113	50347330	50046381	50339672	12.7	<b>50610137</b>
25.4 x 25.4	2.0	Hand/hydr.	50600176	50600184	50601172	50601652	50602586	50601679	15.9	<b>50600168</b>
45.0 x 45.0	3.0	Hydr.	50767640	50767657	52046100		52046101		30.2	<b>50115723</b>
46.0 x 46.0	3.0	Hydr.		50600214	50601180		50602357		30.2	<b>50600192</b>
50.8 x 50.8	3.0	Hydr.	50601695		50601180		50602357		30.2	<b>50601687</b>
68.0 x 68.0	3.0	Hydr.	52055423	50601733	50601180		50602357		30.2	<b>50601717</b>
92.0 x 92.0	3.0	Hydr.*		50601768	50601180		50602357		30.2	<b>50601741</b>
104.8 x 104.8	2.0	Hydr.*	50601784	50601792	50601180		50602357		30.2	<b>50601776</b>
138.0 x 138.0	2.0	Hydr.**	50600230	50600249	50601180		50602357		30.2	<b>50602349</b>

## Special square punch with flattened corners



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm
- Punching of burr-free openings

### Operation







- Manual / hydraulic

### Predrilling

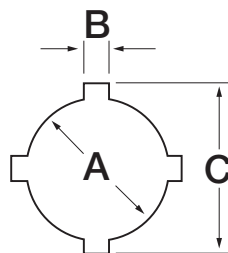
- 12.7 mm dia pilot drill 50344102

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation					Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Punch	Die	Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)							Part No.	mm	 Part No.
22.5 x 20.1	2.0	Hand/hydr.	50611264	50601271	52020113	50347330	50046381	50339672	12.7	<b>50611257</b>

## Round punch with four anti-rotation tabs



### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm

### Operation

- Manual / hydraulic

### Predrilling

- 15.9 mm dia. pilot drill 50344030

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B x C	Max. Material thickness	Operating mode	Individual parts for manual operation					Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Punch	Die	Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)							Part No.	mm	 Part No.
22.5 x 3.2 x 25.4	2.0	Hand/hydr.	50602390		50601172	50601652	50602586	50601679	15.9	<b>50602381</b>
30.5 x 4.8 x 36.0	3.0	Hand/hydr.	50602438	50602497	50601172	50601652	50602586	50601679	15.9	<b>50602420</b>

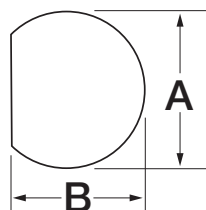
5



# Punching

Round and special shape punches

## „D“ shaped punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm

### Operation

- Manual / hydraulic

### Predrilling

- 12.7 dia. mm pilot drill 50344102

### Scope of supply

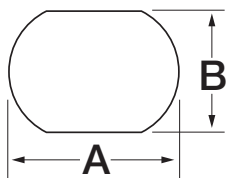
- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

### Additional information

- \* 50610809 and 50610830 available only as punch unit

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation					Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Punch	Die	Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)							Part No.	mm	Part No.
12.7 x 11.9	2.0	Hand/hydr.	50600788	51600790	50601156	50601202	50052446	50601148	9.5	<b>50600770</b>
15.9 x 15.1	2.0	Hand/hydr.			50344218	50347330	50046381	50339672	12.7	<b>50610809</b>
19.1 x 17.9	2.0	Hand/hydr.			50344218	50347330	50046381	50339672	12.7	<b>50610830</b>

## Double „D“ shaped punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm

### Operation

- Manual / hydraulic

### Predrilling

- 15.9 mm dia. pilot drill 50344030

### Scope of supply

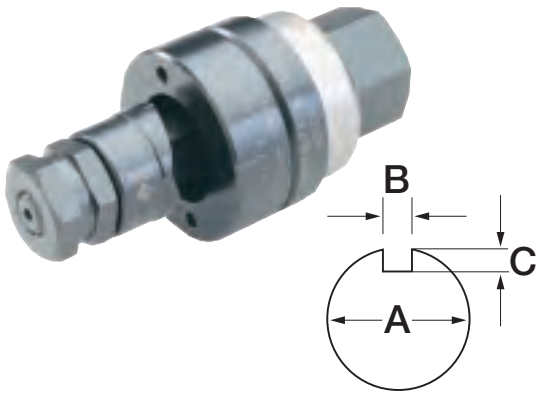
- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

### Additional information

- All punches available only as punch unit

Punch size A x B	Max. Material thickness	Operating mode	Individual parts for manual operation					Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Punch	Die	Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)							Part No.	mm	Part No.
19.5 x 16.3	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	<b>50610861</b>
20.2 x 17.6	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	<b>50610892</b>
23.2 x 19.2	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	<b>50610922</b>
23.2 x 20.2	2.0	Hand/hydr.			52020113	50347330	50046381	50339672	12.7	<b>50610953</b>
34.9 x 28.6	2.0	Hand/hydr.			50601660	50601652	50602586	50601679	23.8	<b>50600982</b>

## Keyway punch



### Suitable for

- Mild steel (St37), plastic and aluminium to 2.0 mm

### Operation

- Manual / hydraulic

### Predrilling

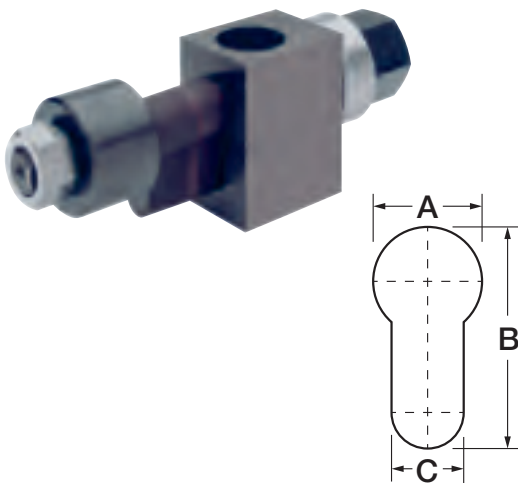
- 23.8 mm dia. pilot drill 50300083

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Punch size A x B x C	Max. Material thickness	Operating mode	Individual parts for manual operation					Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Punch	Die	Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)							Part No.	mm	Part No.
12.2 x 1.4 x 0.8	1.5	Hand/hydr.	51601020	51601030	50601156	50601202	50052446	50601148	9.5	<b>50601016</b>
29.7 x 3.1 x 2.5	2.0	Hand/hydr.	51601050	51601060	50601660	50601652	50602586	50601679	23.8	<b>50601040</b>
32.1 x 4.0 x 2.5	2.0	Hand/hydr.	51601080	51601090	50601660	50601652	50602586	50601679	23.8	<b>50601075</b>
33.7 x 2.6 x 2.5	2.0	Hand/hydr.	51601110	50601121	50601660	50601652	50602586	50601679	23.8	<b>50601105</b>

## Profile cylinder punch



### Suitable for

- Mild steel (St37) up to 2.0 mm and aluminium up to 3.5 mm thick

### Operation

- Manual / hydraulic

### Predrilling

- 12.7 mm dia. pilot drill 50344102

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

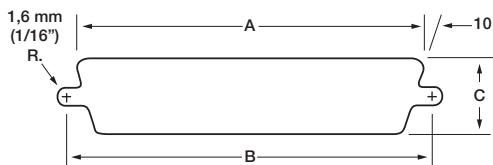
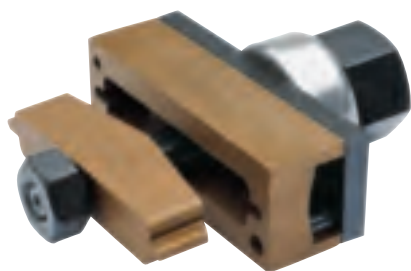
Punch size A x B x C	Max. Material thickness	Operating mode	Individual parts for manual operation					Adapter for hydr. punch driver	Mounting hole-dia. mm	Complete unit
			Punch	Die	Draw studs	Ball bearing nut	Counter nut			
mm	mm (St37)							Part No.	mm	Part No.
17.0 x 33.3 x 10.5	2.0	Hand/hydr.	50053027	50053035	50053043	50347330	90500113	50053051	12.7	<b>50053078</b>



# Punching

Round and special shape punches

## Sub-Min „D“ punch



### Suitable for

- Mild steel (St37) up to 2.0 mm and aluminium up to 3.5 mm thick
- Front or rear mounting

### Operation

- Manual / hydraulic

### Predrilling

- 12.7 mm dia. pilot drill 50344102

### Scope of supply

- Punch unit including punch, die, draw stud, counter nut and ball-bearing nut

Standard	Number Pole	Operating mode	Dimension			Individual parts for manual operation			Adapter for hydr. punch driver	Complete unit
			A mm	B mm	C mm	Draw studs	Ball bearing nut	Counter nut		
229	9	Hand/hydr.	20.0	24.9	11.9	52020113	50347330	50046381	50339672	<b>50344366</b>
231	15	Hand/hydr.	28.6	33.3	11.9	52020113	50347330	50046381	50339672	<b>50344374</b>
RS232	25	Hand/hydr.	42.0	47.1	11.9	52020113	50347330	50046381	50339672	<b>50344200</b>
234	37	Hand/hydr.	58.3	63.4	11.9	52020113	50347330	50046381	50339672	<b>50344293</b>
238	50	Hand/hydr.	55.9	61.0	14.7	52020113	50347330	50046381	50339672	<b>50344447</b>

## Special shape punch for heavy duty connectors with 4 centre mark points



### Characteristics

- Rectangular punches for heavy duty connectors feature a drilling jig built into the die, for drilling the 4 locating holes.

### Suitable for

- Mild steel (St37) to 3.0 mm thick and aluminium to 3.5 mm

### Operation

- Hydraulic

### Predrilling

- 30.2 mm dia. pilot drill 50364146

### Scope of supply

- Punch unit including punch, die, draw stud and counter nut

Item	Punch size A x B mm	Max. Material thickness mm	Operating mode	Individual parts for manual operation		Mounting hole-dia. mm	Complete unit Part No.
				Draw studs	Counter nut		
Special shaped punch for heavy duty connectors, 6-pin, 36 x 52 mm	36.0 x 52.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033816</b>
Special shaped punch for heavy duty connectors, 10-pin, 36 x 65 mm	36.0 x 65.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033817</b>
Special shaped punch for heavy duty connectors, 16-pin, 36 x 86 mm	36.0 x 86.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033818</b>
Special shaped punch for heavy duty connectors, 24-pin, 36 x 91 mm	36.0 x 91.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033819</b>
Special shaped punch for heavy duty connectors 36 x 112 mm	36.0 x 112.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033820</b>
Special shaped punch for heavy duty connectors 46 x 86 mm	46.0 x 86.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033831</b>
Special shaped punch for heavy duty connectors 46 x 112 mm	46.0 x 112.0	3.0	Hydraulic	52046100	52046101	30.2	<b>52033832</b>
Special shaped punch HAN Yellock® 30 with 4 centre mark points 47.2 x 56.4 mm	47.2 x 56.4	3.0 / 3.0 VA	Hydraulic	52046100	52046101	30.2	<b>52058591</b>
Special shaped punch HAN Yellock® 30 with 4 centre mark points 47.2 x 85.5 mm	47.2 x 85.5	3.0 / 3.0 VA	Hydraulic	52046100	52046101	30.2	<b>52058592</b>

## A PRACTICAL TIP!

Spirit level or depth gauge not to hand? Simply mark the position for punching in the shape of a cross and use the markings of the special-shaped punch for a perfect punching result.



# Punching

Round and special shape punches

## Draw studs for shaped punch

### Order info

- To increase the service life, we recommend greasing the draw studs with Greenlee installation paste no. 50115472
- Sizes given are diameter x length
- Subject to tolerance deviations



Size	Part No.
12.7 x 117 mm	<b>50601660</b>



Size	Part No.
12.7 x 117 mm	<b>50601172</b>



Size	Part No.
19 x 171 mm	<b>50601180</b>



Size	Part No.
9.5 x 135 mm	<b>50053043</b>



Size	Part No.
9.5 x 88 mm	<b>52020113</b>



Size	Part No.
6.3 x 87 mm	<b>50601156</b>



# SAVE TIME AND MONEY - WITH EVERY PUNCH!

From the leaders in knockout technology comes the new SPEED PUNCH™ System. The patent pending “no-thread” design eliminates cross-threading, while the innovative SPEED LOCK mechanism quickly secures the punch in place. This means longer tool life and faster punches, saving you time and money on the job. SPEED PUNCH™ is available in ISO 16 to ISO 63 and PG 16 metric sizes and two kit configurations.



UP TO  
**3X**  
FASTER

**SPEED  
PUNCH**

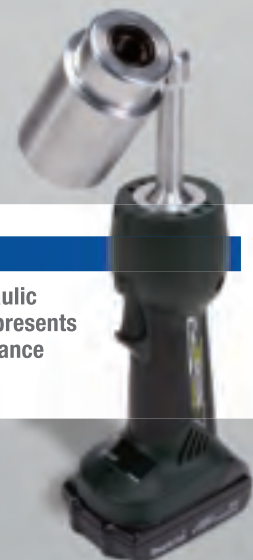
5

## ▶ Speed Punch - saves time and money

- SPEED LOCK mechanism quickly secures the entire system in place: Punch more holes in less time.
- “No-thread” punch design quickly and easily slides on/off draw stud.
- The fastest punch system on the market today.
- Matched die heights eliminate need for additional spacers.
- Fewer extra parts to lose on the job site.
- No more thread damage and costly down time.

## ▶ Simplified punching processes

- Standard draw stud end
- Works with your existing hydraulic and battery-operated punch drivers.



### LS50 FLEX

- ▶ In combination with the hydraulic punching tool LS 50 Flex it represents the state of the art in performance and speed.





# THE ADVANTAGE IN PUNCHING - PUNCHING TOOLS AND SETS

Greenlee punching tools are quick. No matter whether for straight punchings in steel (St37) and stainless steel or confined areas with swivelling head: Greenlee equips you with the right set for every situation. Combined with the Speed Punch, the quickest and most-efficient punching system in our range puts you in pole position. Take the lead in punching!

**NEXT  
GENERATION**



### In brief

- ▶ Always ready for use due to short battery-charging times
- ▶ Heads rotatable through 360° for optimised work ergonomics
- ▶ No fatigue due to low weight
- ▶ 3x quicker punching with the Speed Punch system



## ► The fast one: LS 50 FLEX

The LS 50 FLEX is not just fast. It is integrally designed and produced. It is fully re-charged and ready for use in just 22 minutes. Ergonomic design and a balanced centre of gravity support you when working over long periods of time. The head rotates through 360° and reliably punches in confined areas. Combine the LS 50 FLEX with the Speed Punch system for even faster operations. There's no faster punching than this.

- Can be used for steel (St37) and stainless steel
- Ergonomic design for effortless operations
- Automatic final switch-off for even longer service life of the hole punch
- 22 min. to recharge the battery
- Integrated LED illuminates the work position
- Head rotates through 360°
- Can be combined with Speed Punch punch system for maximum punch speed



**Speed Punch video:**  
[youtube.com/watch?v=0LJ7mHEgeow](https://youtube.com/watch?v=0LJ7mHEgeow)



## ► Speed Punch set

Punching is up to three times quicker with the Speed Punch. The threadless stamp profile can be quickly replaced via a clamp technology - no more screwing the counter nut on and off. The set contains everything you need for the Speed Punch.

- Speed Punch set ISO 16 - 63, including accessories for hydraulic activation
- For all standard steel sheet
- High-quality plastic transport case for optimum product protection

## ► Slug Buster® set ISO 16 - 40

The Slug Buster from Greenlee separates the punch remnants automatically so that they fall from the die by themselves. No jamming or time-consuming removal of the punch remnants. The set comprises all components of the punching system.

- Slug Buster system including accessories
- Including ratchet wrench for manual activation
- Pilot drill included
- High-quality plastic transport case for optimum product protection



### Speed Nut complete set



▶ Up to 3-times faster than conventional punching tools

#### Characteristics

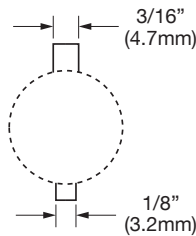
- Compatible with all Greenlee hand-operated and battery powered hydraulic punches
- Easy and quick handling as the screwing up and screwing down of the counter nut is not required

#### Suitable for

- Square punches from 46 x 46 mm and rectangular punches from 33.3 x 66.7 mm

Item	Part No.	
Speed Nut complete set	<b>SLSN34</b>	
Scope of supply	Part No.	Page
Speed Nut draw stud	SLSNDS34	
Quick-action bayonet coupling	SLSNN34	

### Keyway punch



▶ Time-saving punching of slots for anti-twist protected parts  
 ▶ Long service life

#### Suitable for

- Mild steel (St37) to 3 mm thick
- Manual operation

Item	Part No.	
Keyway punch	<b>50265342</b>	
Accessories	Part No.	Page
Spare punch for keyway punch	50265369	
Spare die for keyway punch	50265385	

### Hydraulic punch driver Quick Draw™ 7804E



▶ Ideal for fast, straight-on front panel punching  
 ▶ Compact design  
 ▶ Very robust

#### Characteristics

- Hand hydraulic punch driver with straight head

#### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

#### Additional information

- Accompanying draw studs to 64 mm ST37 are suitable

Technical data		
Dimension	321 x 110 x 70 mm	
Punching force	80 kN	
Weight	2.5 kg	
Item	Part No.	
Quick Draw™ 7804E	<b>50342916</b>	
Scope of supply	Part No.	Page
Hand hydraulic punch 7804E	50342886	
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	
Spacer, short	50032488	
Adapter 19.0 x 48 mm with internal thread 9.5 mm	50339672	426
Plastic case	50352024	

## Hydraulic punch Quick Draw 90™ 7904E



- ▶ Ideal for fast, straight-on front panel punching
- ▶ Head rotates 180° for maximum flexibility
- ▶ Very robust

### Characteristics

- Compact design
- Hand hydraulic punch driver with 90° head

### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

### Additional information

- Accompanying draw studs to 64 mm ST37 are suitable

Technical data		
Dimension	312 x 110 x 65 mm	
Punching force	80 kN	
Weight	3.4 kg	
Item	Part No.	
Quick Draw 90™ 7904E	50342991	
Scope of supply	Part No.	Page
Hand hydraulic punch 7904E	50337866	
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	426
Spacer, short	50032488	
Adapter 19.0 x 48 mm with internal thread 9.5 mm	50339672	426
Plastic case	50352024	

## Manual hydraulic punch



- ▶ Flexible head for multi-purpose use even in confined areas

### Characteristics

- Rotatable/Swivel

### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

### Additional information

- Hand-operated hydraulic punch incl. draw stud, pilot drill and spacer in plastic case
- Without hole
- Accompanying draw studs to 64 mm ST37 are suitable

Technical data		
Dimension	340 x 150 x 85 mm	
Punching force	80 kN	
Weight	2.2 kg	
Revolving/rotatable	360°	
Item	Part No.	
Manual hydraulic punch	52033843	
Scope of supply	Part No.	Page
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827	
HSS Co5 step bit	52049371	
Spacer, short	50032488	
Plastic case		



### LS 60-L Battery powered hydraulic punching tool



- ▶ High flexibility using rotating head
- ▶ Automatic stop makes the punching tools last longer
- ▶ Lithium-ion technology allows long operating times and short recharging times

#### Characteristics

- Electronic control and monitoring of operation
- Simple and safe: One-button operating concept for controlling all tool functions
- Comfortable and secure one-hand operation thanks to 2-component plastic housing with soft grips
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Powerful 18 V Li-Ion battery - high capacity, short charging time
- Energy saving function with motor cut-out after successful operation
- Manual retract as required
- Multifunction LED for maintenance display and charge status display of the battery
- Environmentally-friendly hydraulic oil, quickly biodegradable

#### Suitable for

- A punch size from 104.8 x 104.8 mm
- Round punch up to 95.3 mm

Technical data	
Punching force	60 kN
Weight	4.0 kg
Battery capacity	RAL2 / BL1830: 3 Ah
Charging time	RAL2 / BL1830: 22 min.
Punching time	5 s at 22.5 mm dia., 3 mm mild steel 12 s at 61.5 mm dia., 3 mm mild steel
Ambient temperature	-15 °C up to +40 °C
Head outside diameter	73 mm
Dimensions	325 x 285 x 80 mm
Punching capacity	90 punches/battery at 22.5 mm dia. and 3.5 mm mild steel 170 punches/battery at 2.,5 mm dia. and 3.5 mm mild steel 250 punches/battery at 22.5 mm dia. and 2.5 mm mild steel

Item	Part No.	
LS 60-L Battery powered hydraulic punching tool	<b>LS60L</b>	
Scope of supply	Part No.	Page
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	426
Spacer, short	50032488	
Adapter 19.0 x 48 mm with internal thread 9.5 mm	50339672	426
HSS Co5 step bit	52049371	
KKLS60LGL Plastic case	KKLS60LGL	
Makita quick-charger for 18 V Li-Ion battery	LGL1	494
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	RAL2	491
Accessories	Part No.	Page
18 V mains adapter for 230 V Voltage	NG2230	376

## LS 50 FLEX battery powered hydraulic punching tool

**NEXT  
GENERATION**



- ▶ High flexibility using 360° rotating head
- ▶ An integrated pressure sensor increases the service life of the hole punch
- ▶ Automatic stop makes the punching tools last longer

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Balanced centre of gravity for easy handling and effortless operations
- LED for work area illumination
- Energy saving function with motor cut-out after successful operation
- Manual retract as required
- Always ready-to-use thanks to battery charge and service display

### Suitable for

- A punch size from 104.8 x 104.8 mm
- Round punch up to 144.1 mm
- Square punch up to 138 x 138 mm



Technical data	
Punching force	60 kN
Weight	2.1 kg
Charging time	15 min.
Punching time	5 s at 22.5 mm dia., 3 mm mild steel 6 s at 63.5 mm dia., 3 mm mild steel
Ambient temperature	-15 °C up to +40 °C
Dimensions	340 x 115 x 80 mm
Punching capacity	120 punch operations at 22.5 mm dia., 3.4 mm mild steel 190 punch operations at 22.5 mm dia., 3 mm mild steel 280 punch operations at 22.5 mm dia., 2.5 mm mild steel

Item	Part No. Bosch	Part No. Makita	
LS 50 FLEX battery powered hydraulic punching tool	<b>LS50FLEXCFB</b>	<b>LS50FLEXCFM</b>	
<b>Lieferumfang</b>			<b>Page</b>
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	50318721	426
Spacer 22 mm, short	50032488	50032488	
HSS Co5 step bit	52049371	52049371	
Adapter 19.0 x 48 mm with internal thread 9.5 mm	50339672	50339672	426
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	51300430	
Plastic case	KK50LFLEX	KK50LFLEX	
<b>Accessories</b>			<b>Page</b>
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		495
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
<b>Variants</b>			<b>Page</b>
L-BOXX with flexible battery powered hydraulic punch LS50FLEXCFB	LBOXXLS50FLEXCFB		205
L-BOXX with flexible battery powered hydraulic punch LS50FLEXCFM		LBOXXLS50FLEXCFM	205



### EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press® app
- ▶ Small and slim, perfect for cramped conditions

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



**K22  
SERIE**

**K18  
SERIE**

**K5  
SERIE**

Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	7 s up to 9 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square
Charging time	15 min.
Weight	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EKM60UNVCFB</b>	<b>EKM60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Adapter for crimping dies of Series 22	UA22	UA22	478
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered universal tool EKM60UNVCFB	LBOXXEKM60UNVCFB		205
L-BOXX with battery powered universal tool EKM60UNVCFM		LBOXXEKM60UNVCFM	205



EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ Fast working due to 2-stage hydraulics
- ▶ All tool data on view thanks to display and i-press® app

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

**Technical instructions**

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



Technical data

Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 5 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round
Charging time	45 min.
Weight	4.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EK60UNVCFB</b>	<b>EK60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	UA22	UA22	478
Adapter for crimping dies of Series 22	KK120UNVNG	KK120UNVNG	





## Punching

Punching tools and sets

### EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press® app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



**K13  
SERIE**

Technical data	
Crimping force	108 kN
Stroke	42 mm
Crimping range	10 - 400 mm <sup>2</sup>
Crimping cycle	Depending on cable type
Cutting range	max. 40 mm dia.
Punching capacity	up to 144 mm dia. round, up to 138 x 138 mm square
Charging time	45 min.
Weight	6.5 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 10 - 400 mm <sup>2</sup>	<b>EK120UNVCFB</b>	<b>EK120UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	KK120UNVNG	KK120UNVNG	
Adapter for crimping dies	UA12TKL	UA12TKL	478

## Hydraulic punch with hand pump



► **Compact design**

**Characteristics**

- With hand pump, hose and cylinder

**Suitable for**

- All punches up to 144.1 mm round and 138 x 138 mm square
- St37 up to 3.5 mm and 3.5 mm V2A (depending on punch size)

**Operation**

- Hydraulic

**Additional information**

- When used with Speed Punch use the following draw studs: 52066000 (to ISO 25), 50032488, 52058897 (from ISO 25)

Technical data		
Punching force	110 kN	
Weight	8.3 kg	
Item	Part No.	
Hydraulic punch with hand pump	<b>50159062</b>	
Scope of supply	Part No.	Page
Hydraulic cylinder	50170910	
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827	
Spacer, short	50032488	
Spacer bush, medium	51032490	
Spacer bush 38 mm, long	50069047	
Kwik Stepper™ step bit 12.7 mm	50344102	466
767 Hydraulic hand pump	50132849	490
Hydraulic hose 6.4 mm dia. x 0.9 m	50383167	498
Draw stud for hydraulic operation 19.0 x 137 mm	52045040	





## Punching

Punching tools and sets

### Hydraulic punch with foot pump



#### Characteristics

- With foot pump, hose and cylinder

#### Suitable for

- Up to 144.1 mm round and 138 x 138 mm square
- St37 up to 3.5 mm and 3.5 mm V2A (depending on punch size)

#### Operation

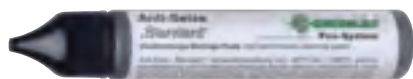
- Hydraulic

#### Additional information

- When used with Speed Punch use the following draw studs: 52066000 (to ISO 25), 50032488, 52058897 (from ISO 25)

Technical data		
Punching force	110 kN	
Weight	15.2 kg	
Item	Part No.	
Hydraulic punch with foot pump	<b>50250973</b>	
Scope of supply	Part No.	Page
Hydraulic cylinder	50170910	
Spacer, short	50032488	
Spacer bush, medium	51032490	
Spacer bush 38 mm, long	50069047	
Kwik Stepper™ step bit 12.7 mm	50344102	466
1725 Hydraulic foot pump	50313533	490
Hydraulic hose 6.4 mm dia. x 3 m	50377299	498
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827	
Draw stud for hydraulic operation 19.0 x 137 mm	52045040	

### Thread grease



- ▶ Increases the service life
- ▶ Prevents "seizing"
- ▶ Screw and nut threads resistant to wear

#### Suitable for

- Statically and dynamically high stressed thread connections

Item	Part No.
Draw stud thread grease, 30 g	<b>50115472</b>

## Portable C-frame punch driver, 15.2 - 34.6 mm



► Fast, one shot punching - no pre-drilling of pilot holes required

### Additional information

- For actuation we recommend hydraulic foot pump 1725, Part No. 50313533, hand pump 767, Part No. 50132849 or pumps EHP4 and AHP700L
- When using the AHP700L adapter CMGSK is required

Technical data		
Throat	200 mm	
Weight	6.8 kg	
Punching capacity	up to 3 mm St37	
Punching range	15.2 - 34.6 mm	
Item	Part No.	
Portable C-frame punch driver 1731	<b>50159119</b>	
Scope of supply	Part No.	Page
Punch adapter 9.5 mm	50132768	
Punch adapter 19 mm	50132776	
Punch Pg 16	51040060	
Punch Pg 21	51040080	
Punch 34.6 mm	50040103	
Die Pg 16 (22.5 mm)	50120875	
Die Pg 21 (28.3 mm)	50120867	
Die 34.6 mm	50120859	
Metal case	50166344	
Accessories	Part No.	Page
Punch Pg 9 (15.2 mm)	50213164	
Die Pg 9 (15.2mm)	50185578	
Punch Pg 11 (18.6 mm)	50177001	
Die Pg 11 (18.6 mm)	50185586	
Punch Pg 13 (20.4 mm)	50176978	
Die Pg 13 (20.4 mm)	50185594	
Punch 30.5 mm (oil-tight)	50362828	
Die ISO 16	50766421	
Die ISO 20	50766438	
Die ISO 25	50766445	
Die ISO 32	50766452	
Punch ISO 25	50039865	
Punch ISO 32	50244590	



### Portable C-frame punch driver, 15.2 - 115.4 mm



#### Suitable for

- For use with standard punches and dies, punching range 15.2 to 115.4 mm

#### Additional information

- For actuation we recommend hydraulic hand pump 755, Part No. 50156772 or pumps EHP4 and AHP700L
- When using the AHP700L adapter CMGSK is required

Technical data	
Throat	200 mm
Weight	27 kg
Punching capacity	up to 3 mm St37
Punching range	15.2 to 115.4 mm

Item	Part No.
Portable C-frame punch driver 1732	<b>50273612</b>

Scope of supply	Part No.	Page
Die adapter 9.5 mm	50117912	
Die adapter 19 mm	50117904	
Die adapter 28.6 mm	50117890	
Die adapter 9.5 mm	50132660	
Die adapter 19 mm	50132679	
Die adapter 28.6 mm	50132687	
Hexagonal nut	90542657	
Metal case	50273353	
Accessories	Part No.	Page
Punch Pg 9 (15.2 mm)	50213164	
Die Pg 9 (15.2mm)	50185578	
Punch Pg 11 (18.6 mm)	50177001	
Die Pg 11 (18.6 mm)	50185586	
Punch Pg 13 (20.4 mm)	50176978	
Die Pg 13 (20.4 mm)	50185594	
Punch 30.5 mm (oil-tight)	50362828	
Die ISO 16	50766421	
Die ISO 20	50766438	
Die ISO 25	50766445	
Die ISO 32	50766452	
Punch ISO 25	50039865	
Punch ISO 32	50244590	

## LSK 120 Hydraulic hole punching head - basic tool



- ▶ Fast and precise cutting
- ▶ Punching in just a few seconds
- ▶ Compact design permits working in tight areas

### Suitable for

- Aluminium, copper and steel with a tensile strength to 470 N/mm<sup>2</sup> to 10 mm thick
- Hole diameters: 6.5 - 17 mm
- Centric punching: 120 mm max. material width
- Drive with EHP 4 and AHP 700-L

### Additional information

- Drive with EHP 4 and AHP 700-L available; adapter CMGSK required

#### Technical data

Max. operating pressure	max. 700 bar
Max. compressive force	160 kN
Dimension	234 x 174 x 88 mm
Weight	9.5 kg

Item	Part No.	
Hydraulic hole punching head LSK 120	<b>50052110</b>	
Accessories	Part No.	Page
Perforated die 6.5 mm dia.	50052276	480
Punch and die 8.5 mm dia.	50052284	480
Punch and die 11 mm dia.	50052292	480
Punch and die 13 mm dia.	50052306	480
Punch and die 15 mm dia.	50052314	480
Punch and die 17 mm dia.	50052322	480

## Slug Buster® punch set for all applications from ISO 16 - 40



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183
- draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® punch set ISO 16 to 40	<b>50366920</b>	
Scope of supply	Part No.	Page
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Draw studs for manual operation 19.0 x 55 mm	50040405	423
Ratchet	50349414	
Kwik Stepper™ step bit 9.7 mm	50360183	466
Plastic case	50366858	



## Slug Buster® punch set for all applications from PG 9 to PG 21 and 30.5 mm



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® punch set PG 9 to PG 21 and 30.5 mm	<b>50366904</b>	
Scope of supply	Part No.	Page
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET	455
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Ratchet	50349414	
Kwik Stepper™ step bit 9.7 mm	50360183	466
Plastic case	50366858	

## Slug Buster® punch set for ISO 16 - 63



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® punch set ISO 16 to 63	<b>50366939</b>	
Scope of supply	Part No.	Page
Slug Buster® punch set ISO 16 - 63	50068920SET	454
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Draw studs for manual operation 19.0 mm x 75 mm	50040421	423
Ratchet	50349414	
Kwik Stepper™ step bit 9.7 mm	50360183	466
Plastic case	50366858	

## Slug Buster® punch set for all applications from PG 9 - 48 and 30.5 mm



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® punch set PG 9 to PG 48 and 30.5 mm	<b>50366912</b>	
Scope of supply	Part No.	Page
Draw studs for manual operation 9.5 x 40 mm	50000420	423
Draw studs for manual operation 19.0 x 55 mm	50040405	423
Ratchet	50349414	
Slug Buster® punch set PG 9 - 48, 30.5 mm	50328034SET	455
Plastic case	50366858	

## Speed Punch™ Set ISO 16 – 40



- ▶ Up to 3-times faster than conventional punching tools
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required
- ▶ Compatible with all Greenlee hand-operated and battery powered hydraulic tools
- ▶ No greasing of the draw stud required

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including draw stud, cramp, punch and die incl. plastic case

Item	Part No.	
Speed Punch™ punch set ISO 16/20/25/32/40	<b>52055439SET</b>	
Scope of supply	Part No.	Page
Punch and die ISO 16 (16.2 mm)	52055431	422
Punch and die ISO 20 (20.4 mm)	52055432	422
Punch and die ISO 25 (25.4 mm)	52055434	422
Punch and die ISO 32 (32.5 mm)	52055435	422
Punch and die ISO 40 (40.5 mm)	52055436	422
Speed Lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16	52055439	422
Speed Lock and draw stud 19.0 mm for ISO 32/40/50/63	52055440	422
Plastic case	KKSPISO16B63	
Accessories	Part No.	Page
Plastic case	KKSPISO16B63	





## Speed Punch™ Set ISO 16 – 63



- ▶ Up to 3-times faster than conventional punching tools
- ▶ Easy and quick handling as the screwing and unscrewing of the counter nut is not required
- ▶ Compatible with all Greenlee hand-operated and battery powered hydraulic tools
- ▶ No greasing of the draw stud required

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including draw stud, cramp, punch and die incl. plastic case

Item	Part No.	
Speed Punch™ Set ISO 16 – 63	<b>52055440SET</b>	
Scope of supply	Part No.	Page
Punch and die ISO 16 (16.2 mm)	52055431	422
Punch and die ISO 20 (20.4 mm)	52055432	422
Punch and die ISO 25 (25.4 mm)	52055434	422
Punch and die ISO 32 (32.5 mm)	52055435	422
Punch and die ISO 40 (40.5 mm)	52055436	422
Punch and die ISO 50 (50.8 mm)	52055437	422
Punch and die ISO 63 (64.0 mm)	52055438	422
Speed Lock and draw stud 9.5 mm for ISO 16/20/25 and PG 16	52055439	422
Speed Lock and draw stud 19.0 mm for ISO 32/40/50/63	52055440	422
Plastic case	KKSPISO16B63	
Accessories	Part No.	Page
Plastic case	KKSPISO16B63	

## Slug-Splitter® punch set (stainless steel) ISO 16 - 40



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 19 mm dia., pilot drill 20.5 mm dia. 50344030  
draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102

Item	Part No.	
Slug-Splitter® punch set (stainless steel) ISO 16/20/25/32/40	<b>50766803</b>	
Scope of supply	Part No.	Page
Slug-Splitter® punch (stainless steel) 16.2 mm	50069527	421
Slug-Splitter® punch (stainless steel) 20.4 mm	50069543	421
Slug-Splitter® punch (stainless steel) 25.4 mm	50069560	421
Slug-Splitter® punch (stainless steel) 32.5 mm	50069594	421
Slug-Splitter® punch (stainless steel) 40.5 mm	50069616	421
Draw stud for hydraulic operation 11.1 mm to 19 mm, 108 mm	50294512	424
Draw stud for hydraulic operation 19 x 140 mm	50294520	424
Plastic case	KKSSISO16B63	

## Slug-Splitter® punch set (stainless steel) ISO 16 - 63



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Stainless steel (V2A), mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 19 mm dia., pilot drill 20.5 mm dia. 50344030  
draw stud 11.1 mm dia., pilot drill 12.7 mm dia. 50344102

Item	Part No.	
Slug-Splitter® punch set (stainless steel) ISO 16/20/25/32/40/50/63	<b>50766797</b>	
Scope of supply	Part No.	Page
Slug-Splitter® punch (stainless steel) 16.2 mm	50069527	421
Slug-Splitter® punch (stainless steel) 20.4 mm	50069543	421
Slug-Splitter® punch (stainless steel) 25.4 mm	50069560	421
Slug-Splitter® punch (stainless steel) 32.5 mm	50069594	421
Slug-Splitter® punch (stainless steel) 40.5 mm	50069616	421
Slug-Splitter® punch (stainless steel) 50.8 mm	50069632	421
Slug-Splitter® punch (stainless steel) 64 mm	50069667	421
Draw stud for hydraulic operation 11.1 mm to 19 mm, 108 mm	50294512	424
Draw stud for hydraulic operation 19 x 140 mm	50294520	424
Plastic case	KKSSISO16B63	



## Slug Buster® hand hydraulic punch driver set PG 9 - PG 21, 30.5 mm



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® hand hydraulic punch driver set PG 9 to PG 21 and 30.5 mm	<b>50356119SET</b>	
Scope of supply	Part No.	Page
Hand hydraulic punch 7804E	50342886	
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	424
Spacer, short	50032488	
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672	426
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET	455
Plastic case	50352024	

## Slug Buster® hand hydraulic 90° punch driver set PG 9 - PG 21, 30.5 mm



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® hand hydraulic punch driver set PG 9 to PG 21 and 30.5 mm	<b>50356151SET</b>	
Scope of supply	Part No.	Page
Hand hydraulic punch 7904E	50337866	
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	424
Spacer, short	50032488	
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672	426
Slug Buster® punch set PG 9 - 21, 30.5 mm	50323989SET	455
Plastic case	50352024	

## Slug Buster® hand hydraulic punch driver set ISO 16 - 40



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® hand hydraulic punch driver set ISO 16 to 40	<b>50356143SET</b>	
Scope of supply	Part No.	Page
Hand hydraulic punch 7804E	50342886	
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	424
Spacer, short	50032488	
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672	426
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454
Plastic case	50352024	

## Slug Buster® hand hydraulic 90° punch driver set ISO 16 - 40



### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm thick

### Operation

- Hydraulic

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

Item	Part No.	
Slug Buster® hand hydraulic punch driver set ISO 16 to 40	<b>50356160SET</b>	
Scope of supply	Part No.	Page
Hand hydraulic punch 7904E	50337866	
Draw stud for punch with hydraulic operation 9.5 x 71 mm	51300430	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	426
Spacer, short	50032488	
Adapter 19.0 x 48 mm with internal thread 9,5 mm	50339672	426
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454
Plastic case	50352024	



## Hand hydraulic punching set 90° ISO 16 - 40



- ▶ Flexible head for multi-purpose use even in confined areas

### Suitable for

- Special shape punches up to a maximum size of 68 x 68 mm or 35 x 65 mm
- Round punches up to ISO 63 (64 mm dia.)

Item	Part No.	
Hand hydraulic punching set ISO 16 - 40	<b>52034233</b>	
Scope of supply	Part No.	Page
Slug Buster® punch set ISO 16/20/25/32/40	50356178SET	454
Draw stud for hydraulic operation 9.5 mm to 19 mm, 122 mm	52042827	
Draw stud for hydraulic operation 19.0 x 105 mm	50318721	426
Spacer, short	50032488	
HSS Co5 step bit	52049371	
Plastic case		

## Slug Buster® punch set ISO 16 – 40



- ▶ For quick, clean, effortless and burr-free holes
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Mild steel (St37), plastic and aluminium to 3.0 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.	
Slug Buster® punch set ISO 16/20/25/32/40	<b>50356178SET</b>	
Accessories	Part No.	Page
Plastic case	KKISO16B63	

## Slug Buster® punch set ISO 16 – 63



- ▶ Long product life
- ▶ Very easy to use

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.	
Slug Buster® punch set ISO 16/20/25/32/40/50/63	<b>50068920SET</b>	
Accessories	Part No.	Page
Plastic case	KKISO16B63	

## Slug Buster® punch set PG 9 - 21, 30.5 mm



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.	
Slug Buster® punch set PG 9/11/13/16/21 and 30.5 mm	<b>50323989SET</b>	
Accessories	Part No.	Page
Plastic case	KKPG9B48	

## Slug Buster® punch set PG 9 - PG 48, 30.5 mm



- ▶ Unique punch profile
- ▶ Split slugs fall free and can be removed easily

### Suitable for

- Mild steel (St37), plastic and aluminium up to 3.5 mm

### Operation

- Manual

### Predrilling

- Draw stud 9.5 mm dia., pilot drill 9.7 mm dia. 50360183  
draw stud 19.0 mm dia., pilot drill 20.5 mm dia. 50344030

### Scope of supply

- Complete system including punch and die incl. plastic case

Item	Part No.	
Slug Buster® punch set PG 9/11/13/16/21/29/36/48 and 30.5 mm	<b>50328034SET</b>	
Accessories	Part No.	Page
Plastic case	KKPG9B48	





# FOR DEEP INCISIONS - HOLE SAWS

Clear the way for cables and electrical connections. Our Greenlee hole saws offer a long-term precise solution. Reinforced back plate reduces vibrations. Saving you effort and ensuring precise concentricity. HSS bi-metal hole saws are suitable for processing steel sheet, cast iron, brass and other materials.



#### In brief

- ▶ Reduced vibrations thanks to reinforced back plate
- ▶ Long service life due to high-performance steel
- ▶ Suitable for numerous materials
- ▶ For multi-functional use, please note our universal tools

▶ **HSS bi-metal hole saws**

No material is safe from the HSS bi-metal hole saws. Very hard high-performance steel (M 42) for clean and reliable prolonged operation.

- Precise cut with positive pitch
- Reinforced back plate reduces vibrations
- High true running accuracy

- Cooling slots for low heat build-up
- Saws up to a cut depth of 41.3 mm
- Improved service life due to tooth hardness Rc65-68
- Suitable for steel sheet, cast iron, brass, fibreglass, wood and plastic



▶ **Set of hole saws: HSS bi-metal hole saw set**

The hole saw set gives you all standard sizes tidily combined. Well sorted and perfectly protected.

- All standard sizes of hole saws
- Manufactured from M42 high-performance steel
- Including accessories
- Securely stowed in a robust case





## HSS Bi-metal hole saws



- ▶ Vibration-reduction and high true running accuracy due to thick back section
- ▶ High-quality serration easily assured, precise cut
- ▶ Cooling slots ensure low heat build-up
- ▶ No canting when sawing

### Characteristics

- High-quality, rake variable pitch design provides faster, easier cutting
- High true running accuracy
- Max. cutting depth 41.3 mm
- Tooth hardness Rc 65 - 68

### Suitable for

- Mild steel, cast iron, brass, aluminium, fibreglass, wood and plastic

### Additional information

- Arbors have to be ordered separately, not included in scope of supply

Punch size mm	Standard size Pg	Standard size ISO	Weight g	Recommended cutting speed r.p.m. for						Part No.
				steel sheet	tool and stainless steel	cast iron	non-ferrous metal	aluminium	wood	
14			46	580	300	400	790	900	800	50191314
15			46	580	300	400	790	900	800	52057722
16	Pg 9	ISO 16	46	550	275	365	730	825	760	52057723
17			46	500	250	330	665	750	720	52057724
18			46	500	250	330	665	750	720	52057725
19	Pg 11		46	460	230	300	600	690	680	52057726
20		ISO 20	46	445	220	290	580	660	640	52057727
21	Pg 13		46	425	195	280	560	635	580	52057728
22	Pg 16		46	390	195	260	520	585	560	52057729
23			46	380	190	250	510	570	540	52057730
24			46	370	185	245	494	555	520	52057731
25		ISO 25	46	350	175	235	470	525	500	52057732
26			46	325	160	215	435	480	500	52057733
27			46	300	150	200	400	450	450	52057734
28			46	300	150	200	400	450	450	52057735
29	Pg 21		91	285	145	190	380	425	430	52057736
30			91	270	140	180	360	410	410	52057737
32		ISO 32	91	270	140	180	360	410	410	52057738
33			46	250	125	165	330	375	370	52057739
35			46	240	120	160	315	360	30	52057740
36			91	240	120	160	315	360	30	52057741
37	Pg 29		91	230	115	150	300	345	330	52057742
38			91	220	110	145	290	330	310	52057743
40		ISO 40	91	210	110	140	280	315	290	52057744
41			91	205	105	135	270	305	270	52057745
42			137	205	105	135	270	305	270	52057746
43			91	195	100	130	260	295	250	52057747
44			91	190	95	125	250	285	230	52057748
45			91	190	95	125	250	285	230	52057749
46			137	180	90	120	240	270	210	52057750
48	Pg 36		91	180	90	120	240	270	210	52057751
50		ISO 50	91	170	85	115	230	255	200	52057752
51			137	165	80	110	220	245	200	52057753

Punch size mm	Standard size Pg	Standard size ISO	Weight g	Recommended cutting speed r.p.m. for						Part No.
				steel sheet	tool and stainless steel	cast iron	non-ferrous metal	aluminium	wood	
53			137	160	80	105	210	240	190	52057755
54	Pg 42		137	160	80	105	210	240	190	52057756
55			137	150	75	100	200	225	185	52057757
57			227	150	75	100	195	225	185	52057758
59			137	140	70	95	190	220	180	52057760
60	Pg 48		137	135	70	90	180	205	180	52057761
63		ISO 63	182	130	65	85	175	200	175	52057762
64			182	130	65	85	175	200	175	52057801
65			182	130	65	85	170	195	170	52057763
67			182	125	60	80	160	185	165	52057764
68			182	125	60	80	160	185	160	52057765
70			182	120	55	80	160	180	160	52057766
73			182	115	55	75	150	170	150	52057767
74			182	115	55	75	150	170	150	52057768
75			227	115	55	75	150	170	150	52057769
76			227	110	55	70	140	165	145	52057770
79			227	120	55	70	140	165	165	52057802
80			227	110	55	70	140	165	145	52057771
83			273	105	50	70	140	155	140	52057773
86			273	100	50	65	130	150	135	52057774
89			273	95	45	65	130	145	130	52057775
92			273	95	45	60	120	130	120	52057776
95			318	95	45	60	120	135	110	52057777
98			318	90	40	60	120	135	110	52057778
102			318	85	10	55	110	130	100	52057779
105			363	80	40	55	110	120	110	50191772
108			363	80	40	55	110	120	110	50191780
111			363	80	40	50	100	120	110	50191799
114			409	75	40	50	100	105	100	50191802
121			499	75	35	50	95	95	100	50191810
127			545	65	35	45	90	90	100	50191829
140			545	60	35	35	85	85	100	50191837
152			636	55	35	35	75	75	100	50191845
168			701	55	35	35	68	65	100	52057803
177			728	55	35	35	65	65	100	52057804
210			820	55	35	25	55	55	100	52057805

## HSS Bi-metal hole saw set



- ▶ Saves time thanks to low vibration and heat development
- ▶ Variable pitch for an uniform cut
- ▶ Requires minimal effort when drilling

### Characteristics

- High true running accuracy
- Less effort when cutting

### Suitable for

- Metal, brass, fibreglass, non-ferrous metal, cast iron, aluminium, wood and plastics, stainless steel sheet

Item	Part No.
HSS bi-metall hole saw set Elektro II	<b>52059292SET</b>
HSS bi-metal universal hole saw set	<b>52059293SET</b>
HSS bi-metal hole saw set ISO 16 to 63	<b>50069497SET</b>
HSS bi-metal plumbing hole saw set	<b>52059294SET</b>
HSS bi-metal hole saw set (830 PG)	<b>50292099SET</b>
HSS bi-metal electrical hole saw set	<b>52059295SET</b>
Electro set with countersink 35/68/75 mm	<b>50125630SET</b>

Description	Nominal size mm	Standard size		Hole set						
		Pg	ISO	52059292SET Elektro II	52059293SET Universal	50069497SET ISO 16-63	52059294SET Plumbing	50292099SET 830PG	52059295SET Standard	50125630SET Elektro
Bi-metal hole saw	16	Pg 9			●			●	●	
	17		ISO 16			●				
	19	Pg 11			●		●	●	●	
	21	Pg 13	ISO 20			●		●		
	22	Pg 16		●	●			●	●	
	24						●			
	25		ISO 25		●	●				
	29	Pg 21		●	●		●	●	●	
	30							●		
	33		ISO 32			●				
	35			●	●				●	●
	37	Pg 29						●		
	38				●		●			
	41		ISO 40			●				
	44			●	●		●		●	
	48	Pg 36						●		
	51		ISO 50	●	●	●				
	52								●	
	57						●		●	
	60	Pg 48						●		
	63		ISO 63	●	●	●				
	67						●		●	
	68			●						●
	75									●
	76				●					
Countersink for Hole Saw 68 mm										●
Arbor 14 to 30 mm				●	●	●	●	●	●	
Arbor 32 to 152 mm				●	●	●	●	●	●	●
Case				●	●	●	●	●	●	●

## Electro set with countersink



### Characteristics

- Countersink with two specially-hardened cutting teeth

### Suitable for

- Steel, non-ferrous metal, aluminium, cast iron, stainless steel, wood, plastic and building materials

### Scope of supply

- Consisting of hole saws 35 mm, 68 mm, 75 mm, countersink for 68 mm hole saw, arbor with pilot drill and counter nut for hole saws 32 - 152 mm and spare HSS pilot drill 6.35 mm dia.

Item	Part No.	
Electro set with countersink 35/68/75 mm	<b>50125630SET</b>	
Scope of supply	Part No.	Page
HSS bi-metal hole saw 35 mm	52057740	458
HSS bi-metal hole saw 68 mm	52057765	459
HSS bi-metal hole saw 75 mm	52057769	459
Countersink for hole saws	52033839	
Arbor for HSS bi-metal hole saws 8.6 mm	52057781	462
Plastic case	52059258	



### Arbor for HSS bi-metal hole saws 14 - 30 mm

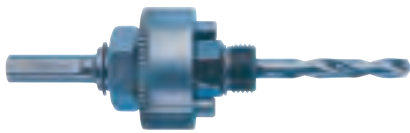


**Suitable for**

- Sizes from 14 - 30 mm

Item	Part No.
Arbor 6.3 mm	<b>50371576</b>
Arbor for HSS bi-metal hole saws 7.9 mm	<b>50385224</b>
Arbor 8.6 mm	<b>52057780</b>
Arbor 11.1 mm	<b>50371550</b>

### Arbor for HSS bi-metal hole saws 32 - 152 mm



**Suitable for**

- Sizes from 32 - 51 mm
- Sizes from 32 - 152 mm

Item	Part No.
Arbor 7.9 mm for HSS bi-metal hole saws 32 - 51 mm	<b>50371541</b>
Arbor 8.6 mm for HSS bi-metal hole saws 32 - 152 mm	<b>52057781</b>
Arbor 11.1 mm for HSS bi-metal hole saws 32 - 152 mm	<b>50371568</b>

### SDS arbor for HSS bi-metal hole saws



**Suitable for**

- Sizes from 32 - 152 mm
- Sizes from 14 - 30 mm

Item	Part No.
SDS arbor for HSS bi-metal hole saws 14 - 30 mm	<b>50069691</b>
SDS arbor for HSS bi-metal hole saws 32 - 152 mm	<b>50069292</b>

### Replaceable pilot drill for arbor HSS bi-metal hole saws



Item	Part No.
Replaceable pilot drill for arbor HSS bi-metal hole saws	<b>52057782</b>





# SIMPLE DRILLING – EVERYTHING IN ONE OPERATION

Greenlee bits are produced using the latest CNC technology. The benefit to you is clear: Clean cutting edges produce longer and better cutting operations from the very first use. That saves you effort. The two-sided deburring of the edge breaker saves you time. The Rotastop system on the shank prevents the bit from slipping through in the chuck. That's how drilling is done today.



## In brief

- ▶ Perfect cutting performance in the first pass
- ▶ Rotastop prevents the bit slipping through
- ▶ Split point requires less effort

▶ **Kwik Stepper with Rotastop**

Years of experience and development have gone into this bit. The Kwik Stepper drills not only burr-free with optimum swarf removal, the spiral groove also reduces heat build-up during the drilling operation. This makes the Kwik Stepper especially durable. The Rotastop system holds the bit in place - without slipping through. Additionally, the split point reduces your effort during the drilling operation. Great performance from just one bit.

- All required drilling ranges in one tool
- Rotastop for maximum torque transmission
- Quick bit change
- No slipping through in the chuck
- Spiral groove for improved cutting performance
- Two-sided burr removal
- Can be used for sheet, pipes, non-ferrous metals, stainless steel and plastics

▶ **Performance in the set: Kwik Stepper set of step bits**

To keep you flexible while drilling, we have combined all standard step bits in a practical set and accommodated them in a robust plastic box. Everything to hand.

- All common step bits
- Clear assignment of the bit through laser scaling of the step bit
- Robust plastic box with integrated pop-up hinge
- Easy to transport and store





## Kwik Stepper™ step bit



- ▶ Minimum burr
- ▶ Long service life
- ▶ Good torque transmission
- ▶ Less effort when drilling

### Suitable for

- Sheet, pipe, NF metal and plastic

Item	Drilling range dia. mm	Step sizes dia. mm	Total length mm	Number of steps	Shank dia. mm	Part No.
Kwik Stepper™ step bit 3.2 - 12.7 mm	3.2 - 12.7	3.2 / 4.0 / 4.8 / 5.6 / 6.4 / 7.1 / 7.9 / 8.7 / 9.5 / 10.3 / 11.1 / 11.9 / 12.7	80	13	6.34	<b>50344013</b>
Kwik Stepper™ step bit 4.8 - 12.7 mm	4.8 - 12.7	4.8 / 6.4 / 7.9 / 9.5 / 11.1 / 12.7	80	6	6.4	<b>50364022</b>
Kwik Stepper™ step bit 22.2 mm	22.2	22.2	85	1	9.5	<b>50344110</b>
Kwik Stepper™ step bit 4.8 - 22.2 mm	4.8 - 22.2	4.8 / 6.4 / 7.9 / 9.5 / 11.1 / 12.7 / 14.3 / 15.9 / 17.5 / 19.1 / 20.6 / 22.2	85	12	9.5	<b>50344030</b>
Kwik Stepper™ step bit 12.7 - 28.6 mm	12.7 - 28.6	12.7 / 22.2 / 28.6	57	3	9.5	<b>50300083</b>
Kwik Stepper™ step bit 22.2 - 34.9 mm	22.2 - 34.9	22.2 / 28.6 / 31.0 / 31.8 / 34.9	73	5	9.5	<b>50364146</b>
Kwik Stepper™ step bit 9.7 mm	9.7	Predrilling for Green- lee-Draw stud 9.7	40	1	6.4	<b>50360183</b>
Kwik Stepper™ step bit 12.7 mm	12.7	Predrilling for Green- lee-Draw stud 12.7	40	1	6.4	<b>50344102</b>
Kwik Stepper™ step bit Pg 7 - 21	Pg 7 - 21	Pg7 / Pg9 / Pg11 / Pg13 / Pg16 / Pg21	90	7	9.5	<b>50360205</b>
Kwik Stepper™ step bit ISO 16 - 32	ISO 16 - 32	ISO 16 / 20 / 25 / 32	80	4	9.5	<b>50360221</b>

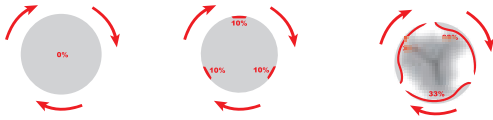
## Kwik Stepper™ step bit with ROTASTOP® shaft



- ▶ ROTASTOP® guarantees best-possible torque transmission
- ▶ Minimal burr
- ▶ No slipping in the chuck with ROTASTOP®
- ▶ Long service life
- ▶ Requires minimum effort when drilling

### Suitable for

- Reaming of steel sheets, pipes, non-ferrous metals and plastic



Item	Drilling range dia. mm	Step sizes dia. mm	Total length mm	Number of steps	Shank dia. mm	Part No.
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 12 mm	4 – 12	4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 / 11.0 / 12.0	80	9	8.0	50069845
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 20 mm	4 – 20	4.0 / 6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0	67	9	8.0	50069853
Kwik Stepper™ step bit with ROTASTOP® shaft ISO 12 - 40 mm	6-21	6.0 / 8.0 / 10.0 / 11.5 / 12.5 / 14.5 / 17.0 / 21.0	67.5	8	8	52049371
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 30 mm	6 – 30	6.0 / 8.0 / 10.0 / 12.0 / 14.0 / 16.0 / 18.0 / 20.0 / 22.0 / 24.0 / 26.0 / 28.0 / 30.0	98	13	10.0	50069861
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 36 mm	6 – 36	6.0 / 9.0 / 12.0 / 15.0 / 18.0 / 21.0 / 24.0 / 27.0 / 30.0 / 33.0 / 36.0	85	11	12.0	50069870
Kwik Stepper™ step bit with ROTASTOP® shaft ISO 12 - 40 mm	ISO 12 - 40	For ISO 12 / 16 / 20 / 25 / 32 / 40	110	6	12.0	50069888



## Kwik Stepper™ step bit set



- ▶ ROTASTOP® guarantees best-possible torque transmission
- ▶ Hardly any burr
- ▶ No slipping in the chuck with ROTASTOP®
- ▶ Long service life
- ▶ Requires minimal effort when drilling

### Suitable for

- Reaming of steel sheets, pipes, non-ferrous metals and plastic

Item	Part No.	
Kwik Stepper™ step bit set	<b>50069900</b>	
Scope of supply	Part No.	Page
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 12 mm	50069845	467
Kwik Stepper™ step bit with ROTASTOP® shaft 4 - 20 mm	50069853	467
Kwik Stepper™ step bit with ROTASTOP® shaft 6 - 30 mm	50069861	467

## Combi bit set M 3 - M 10



- ▶ Drill, tap and deburr in one operation

### Suitable for

- For use with St37, non-ferrous metals and plastics

Item	Part No.	
Combi bit set in plastic cassette M 3 - M 10	<b>50121510</b>	
Scope of supply	Part No.	Page
Combi bit M3	50116312	
Combi bit M4	50116320	
Combi bit M5	50116339	
Combi bit M6	50116347	
Combi bit M8	50116355	
Combi bit M10	50116363	
Combi bit holder	50116371	



# THE ALL-ROUNDER.

Sometimes, you need to be the jack-of-all-trades: Crimping, cutting, bending, punching and offsetting. With Klauke, you have every facility in just one tool.





# Universal tools

Hand-operated hydraulic universal tool, hydraulic universal head 472

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Battery powered universal tools 475

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Bus bar tool centre 479





# ONE TOOL FOR ALL SITUATIONS - UNIVERSAL TOOLS

Crimping, cutting or punching: Replaceable adapter and dies quickly adapt the tool to individual tasks. Low weight and powerful: Crimping up to 400 mm<sup>2</sup>, cutting up to 40 mm diameter or punching up to 92 x 92 mm, no problem at all for the Klauke Multi.

The Klauke Multi: The right tool in every instance.

**NEXT GENERATION**



## ▶ Systematic crimping

All crimping dies from Klauke function with every Klauke tool. Crimp cable lugs with the Klauke series 5, 18 and 22 (6 t tools) and wide crimping with the series 13 (12 t tools). Differing crimp shapes and nominal cross-sections up to 400 mm<sup>2</sup> can be processed with just one tool.

- Can be used with dies series 5, 18 and 22 (6 t)
- Wide crimping with dies series 13 (12 t) possible
- Cross sections up to 400 mm<sup>2</sup>
- Simple adapter replacement

## ▶ The plus one: Hole punching

Retooling of hole punches is really simple with the Klauke multi. In conjunction with hole punch adapters from Greenlee, you can punch holes up to 64 mm round and max. 92 mm x 92 mm square.

## ▶ All-around cutting

Stay prepared for various materials. Cables from copper and aluminium are not a problem with appropriate cutting head, likewise for DIN-profile rails, threaded bars or railway catenary wires. Klauke universal tool cuts everything up to 40 mm diameter.

- Differing materials can be cut: Aluminium and copper cables, threaded rods, profile rails, railway catenary wires
- The right cutting dies for every application
- Cutting range up to 40 mm

## ▶ Solid in use

The Klauke universal tool can also be used for machining operations on solid bus bars and laminated bus bars up to 120 mm x 12 mm. Bending, punching, cutting and offsetting with one device that can be operated with the AHP700L and the electric pumps from Klauke.

## HK 60 UNV Hand-operated hydraulic universal tool



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool

### Characteristics

- Universal head flip top style, rotatable
- Adapter for crimping dies of the Klauke Series 5, 18 and 22
- Various cutting dies for aluminium and copper conductors with and without armouring as well as Al/St-Cables (ACSR)
- Dies for cutting threaded rods and DIN rails
- Punching adapter for Greenlee punching tools
- Dies to punch DIN rails
- Light weight due to high quality aluminium housing
- 2-stage hydraulic system with fast feed and power stroke
- Automatic retraction when operation is complete

### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



Technical data		
Crimping force	60 kN	
Stroke	42 mm	
Crimping range	6 - 300 mm <sup>2</sup>	
Cutting range	max. 40 mm dia.	
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square	
Length	540 mm	
Weight	3.5 kg	
Ambient temperature	-20 °C to +40 °C	
Item	Part No.	
Hand-operated hydraulic universal tool	<b>HK60UNV</b>	
Scope of supply	Part No.	Page
Steel carrying case	MK60UNV	





## Universal tools

Hand-operated hydraulic universal tool, hydraulic universal head

### PK 60 UNV Hydraulic universal head



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ For connecting to hydraulic pumps with 700 bar operating pressure for best possible crimping, cutting and punching results

#### Characteristics

- Universal head with quick coupling, 360° rotation when not pressurised, flip top style
- Various cutting dies for aluminium and copper conductors with and without armouring as well as Al/St-Cables (ACSR)
- Dies to punch DIN rails
- Adapter for crimping dies of the Klauke Series 5, 18 and 22

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478

Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping cycle	3 s to 5 s (depending on crimping cross-section)
Number of crimps	approx. 300 at 150 mm <sup>2</sup> Cu DIN
Cutting range	max. 40 mm dia.
Number of cuts	approx. 110 at 4 x 70 mm <sup>2</sup> NYF
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square
Operating pressure	max. 700 bar
Length	350 mm
Weight	2.4 kg

Item	Part No.	
Hydraulic universal head	<b>PK60UNV</b>	
Scope of supply	Part No.	Page
Carrying bag	TT2	192



**EKM 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>**

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press app
- ▶ Small and slim, perfect for cramped conditions

**Characteristics**

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

**Technical instructions**

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	7 s up to 9 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round, up to 92 x 92 mm square
Charging time	15 min.
Weight	3.0 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. <b>Bosch</b>	Part No. <b>Makita</b>	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EKM60UNVCFB</b>	<b>EKM60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 2.0 Ah, Li-Ion	RALB1EU		492
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 1.5 Ah, Li-Ion		RAL1	491
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Adapter for crimping dies of Series 22	UA22	UA22	478
Plastic case 450 x 370 x 105 mm	KKMUNVNG	KKMUNVNG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)		RAL2	491
Variants			Page
L-BOXX with battery powered universal tool EKM60UNVCFB	LBOXXEKM60UNVCFB		205
L-BOXX with battery powered universal tool EKM60UNVCFM		LBOXXEKM60UNVCFM	205





### EK 60 UNV Battery-powered hydraulic universal tool 6 - 300 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ Fast working due to 2-stage hydraulics
- ▶ All tool data on view thanks to display and i-press app

#### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

#### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478



Technical data	
Crimping force	60 kN
Stroke	42 mm
Crimping range	6 - 300 mm <sup>2</sup>
Crimping cycle	3 s to 5 s (depending on cross-section)
Cutting range	max. 40 mm dia.
Punching capacity	up to 64 mm dia. round
Charging time	45 min.
Weight	4.8 kg
Ambient temperature	-10 °C up to +40 °C

Item	Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 6 - 300 mm <sup>2</sup>	<b>EK60UNVCFB</b>	<b>EK60UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case 450 x 370 x 105 mm	UA22	UA22	478
Adapter for crimping dies of Series 22	KK120UNVNG	KK120UNVNG	

## EK 120 UNV Battery-powered hydraulic universal tool 10 - 400 mm<sup>2</sup>

**NEXT  
GENERATION**



- ▶ One head for crimping, cutting and punching - one tool for all
- ▶ Ideal in the assembly field where all common jobs can be carried out using one tool
- ▶ All tool data on view thanks to display and i-press app

### Characteristics

- Choose your battery system: Bosch or Makita
- All data can be easily read via Bluetooth
- Universal head flip top style, rotatable
- Simple and safe: One-button operating concept for controlling all tool functions
- Effortless working due to balanced centre of gravity
- LED for work area illumination
- 2-stage hydraulic system with fast feed and power stroke
- Simple and safe: Automatic retraction when operation is complete (crimping or cutting)
- Always ready-to-use thanks to battery charge and service display

### Technical instructions

- Interchangeable adapters and dies for crimping, cutting and punching you will find on page 478
















**K13  
SERIE**

Technical data	
Crimping force	108 kN
Stroke	42 mm
Crimping range	10 - 400 mm <sup>2</sup>
Crimping cycle	Depending on cable type
Cutting range	max. 40 mm dia.
Punching capacity	up to 144 mm dia. round, up to 138 x 138 mm square
Charging time	45 min.
Weight	6.5 kg
Ambient temperature	-10 °C up to +40 °C

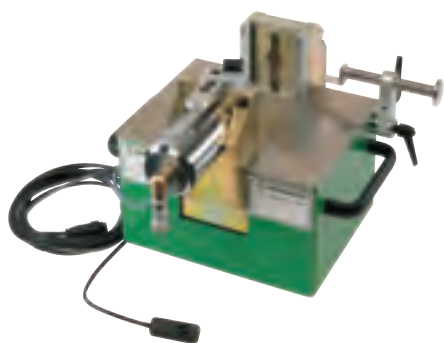
Item	Part No. Bosch	Part No. Makita	
Battery-powered hydraulic universal tool 10 - 400 mm <sup>2</sup>	<b>EK120UNVCFB</b>	<b>EK120UNVCFM</b>	
Scope of supply			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Bosch quick-charger for 18 V Li-Ion battery	LGLB1EU		494
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492
Makita quick-charger for 18 V Li-Ion battery		LGL1	494
Plastic case	KK120NG	KK120NG	
Accessories			Page
Bosch battery 18 V / 5.0 Ah, Li-Ion	RALB2EU		493
Makita battery 18 V / 4.0 Ah, Li-Ion		RAL40	492



### Interchangeable adapters and dies for crimping, cutting or punching

Part description	Part no.	Tools		
		6 ton	12 ton	
<b>Application: crimping</b>				
 Adapter for crimping dies series 5	UA5	●		
 Adapter for crimping dies series 13	UA12TKL		●	
 Adapter for crimping dies series 18	UA18	●		
 Adapter for crimping dies series 22	UA22	●		
<b>Application: cutting</b>				
 Cutting die for Al/Cu conductors to max. 40 mm dia.	UCACSR	●	●	
 Cutting die for Al/Cu conductors to max. 26 mm dia. (Not suitable for fine and superfine stranded conductors)	UC26	●	●	
	Cutting die for Al/Cu conductors to max. 40 mm dia. (Not suitable for fine and superfine stranded conductors)	UC40	●	●
 Cutting die for threaded rods M5 metric	UCM5	●	●	
	Cutting die for threaded rods M6 metric	UCM6	●	●
	Cutting die for threaded rods M8 metric	UCM8	●	●
	Cutting die for threaded rods M10 metric	UCM10	●	●
	Cutting die for threaded rods M12 metric	UCM12	●	●
	Cutting die for threaded rods 1/4"	UCUNC14	●	●
	Cutting die for threaded rods 3/8"	UCUNC38	●	●
	Cutting die for threaded rods 1/2"	UCUNC12	●	●
 Cutting die for profile conductors 35 x 15	UCD3515	●	●	
	Cutting die for profile conductors 32 x 15 x 9	UCD3215	●	●
	Cutting die for profile conductors 35 x 7.5	UCD3575	●	●
 Cutting die for profile conductors 2980	UCN2980	●	●	
 Cutting die for laminated Cu bus bars, max. width 37.5 mm	UCF	●		
 Cutting die 107 mm <sup>2</sup> type AC for catenary wires in railway construction	UCAC107	●	●	
	Cutting die 85 mm <sup>2</sup> type BC for catenary wires in railway construction	UCBC85	●	●
	Cutting die 110 mm <sup>2</sup> type BC for catenary wires in railway construction	UCBC110	●	●
	Cutting die 120 mm <sup>2</sup> type BC for catenary wires in railway construction	UCBC120	●	●
	Cutting die 150 mm <sup>2</sup> type BC for catenary wires in railway construction	UCBC150	●	●
<b>Application: Punching</b>				
 Hole punch adapter for holes to 64 mm dia., 92 x 92 mm and 46 x 92 mm	UA6P	●		
	Hole punch adapter for holes to 144 mm dia., 138 x 138 mm and 68 x 138 mm	UA12P		●
 Die for punching DIN rails 35 x 15; 32 x 15 x 9; 35 x 7.5	UPD6	●		

## Bus bar tool centre



- ▶ Basic tool for bending, punching and cutting solid and laminated bus bars up to 120 x 12 mm
- ▶ Compact design and low weight

### Suitable for

- Drive with EHP4 or AHP700-L

### Additional information

- For drives with EHP4 the Part Number appendix „EHP4“ is required (50052241EHP4)  
For drives with AHP700-L connector Sbz4 is required.

Technical data	
Crimping force	185 kN
Max. operating pressure	700 bar
Capacity	1.5 l / min.
Required oil volume	0.15 l
Dimension	480 x 500 x 360 mm
Weight	51 kg
Item	Part No.
Bus bar tool centre for operation with AHP700-L	<b>50052241</b>

## Bending tool



- ▶ For Al/Cu materials to max. 120 x 12 mm
- ▶ Bending radius 5.00 mm

### Characteristics

- Max. bending angle 100°

Technical data	
Weight	7.1 kg
Item	Part No.
Bending tool, 5.0 mm bending radius	<b>50052250</b>

## Punching tool I



### Characteristics

- Solid conductors from Al/Cu to max. 12 mm and steel to 10 mm thick

### Suitable for

- Hole diameters from 6.5 - 21 mm

Technical data	
Weight	4.5 kg
Item	Part No.
Punching tool I	<b>50052128</b>

## Punching tool I



### Characteristics

- Solid conductors from Al/Cu to max. 12 mm and steel to 10 mm thick

Item	Part No.
Punch and die 6.5 mm dia.	50052276
Punch and die 8.5 mm dia.	50052284
Punch and die 11 mm dia.	50052292
Punch and die 13 mm dia.	50052306
Punch and die 15 mm dia.	50052314
Punch and die 17 mm dia.	50052322
Punch and die 21 mm dia.	50052330
Oblong punch and die 6.5 x 13 mm	50052349
Oblong punch and die 8.5 x 16 mm	50052357
Oblong punch and die 11 x 20 mm	50052365
Oblong punch and die 13 x 20 mm	50052373
Oblong punch and die 17 x 20 mm	50052381

## Punching tool III



### Characteristics

- Solid and laminated bus bars from Al/Cu to max. 12 mm and steel to 10 mm thick

### Suitable for

- Hole diameters from 6.5 - 21 mm

Technical data	
Weight	4.5 kg
Item	Part No.
Punching tool III	50766919

## Punch & die for punching tool III

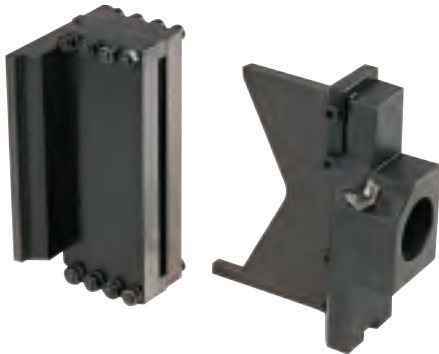


### Characteristics

- Solid and laminated bus bars from Al/Cu to max. 12 mm and steel to 10 mm thick

Item	Part No.
Punch and die 6.5 mm dia.	50115286
Punch and die 8.5 mm dia.	50115294
Punch and die 11 mm dia.	50115308
Punch and die 13 mm dia.	50115316
Punch and die 15 mm dia.	50115324
Punch and die 17 mm dia.	50115332
Punch and die 21 mm dia.	50115340
Oblong punch and die 6.5 x 13 mm	50115359
Oblong punch and die 8.5 x 16 mm	50115367
Oblong punch and die 11 x 20 mm	50115375
Oblong punch and die 13 x 20 mm	50115383
Oblong punch and die 17 x 20 mm	50115391

## Cutting tool



### Characteristics

- For Al/Cu materials to max. 120 x 12 mm

Technical data	
Weight	5.3 kg
Item	Part No.
Cutting tool	<b>50052144</b>

## Offset tool



### Characteristics

- Workpiece offset 5, 6, 8, 10 and 12 mm by using insertion plates
- For Al/Cu materials to max. 120 x 12 mm

Technical data	
Dimension	175 x 90 x 135 mm
Weight	10.0 kg
Item	Part No.
Offset tool	<b>50052152</b>

## Aluminium accessory box for punching tools, empty



### Suitable for

- Storage of accessories

Technical data	
Dimension	350 x 250 x 200 mm
Weight	4.3 kg
Item	Part No.
Tool chest alu (empty)	<b>50052160</b>



# THE RIGHT DRIVE FOR EVERY ACTIVITY.

Even when it comes to drive units, Klauke leaves nothing to chance. No matter where, when and how: Klauke hydraulic pumps give you the power you need.





# Pumps

<b>Pumps</b>	<b>482</b>
Hydraulic pumps	484
Accessories for hydraulic tools	491





# THE DRIVE - HYDRAULIC PUMPS AND DRIVE UNITS

With Klauke, everything fits together. Klauke hydraulic pumps provide every Klauke crimping, cutting and multi head with the required thrust. All pumps are matched to the various heads. They generate 700 bar pressure so that the tool can provide full power with every operation.



## ► Foot pressure actuation: Hydraulic foot pumps

Keep your hands free: With the steady hydraulic foot pumps, you can operate all crimping and cutting tools by your foot pressure. The 2-stage hydraulic system work especially efficiently.

- Foot pumps with up to 700 bar pressure
- 2-stage hydraulic system for efficient pumping effect
- Automatic pressure switch off
- Best possible convenience and good durability
- Up to 10 m hydraulic hose available

## ► Portable pressure: Battery-powered hydraulic pumps

Pumps wherever you want. Simply take our battery-powered hydraulic pump AHP 700-L along with shoulder strap or rucksack.

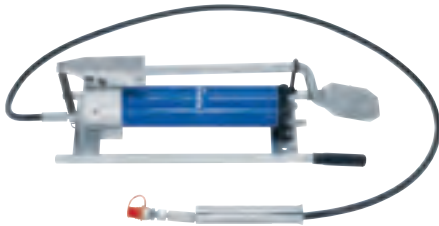
- Pumps delivering up to 700 bar pressure
- Compact dimensions for portable use
- Simple operation via hand switch with 1.5 m cable
- Display with reverse function
- Hydraulic hose up to 10 m long available

## ► Pressure with current: Electro-hydraulic pumps

Use the full force of your tools also with EHP 2, 3 or 4 electro-hydraulic drive.

- Power output up to 700 bar
- High capacity with compact dimensions
- Hydraulic hose up to 10 m long available

## FHP 2 Foot pump 700 bar



- ▶ Two-stage hydraulics
- ▶ Manual retraction if required, also at high pressure
- ▶ Sturdy design

### Characteristics

- Automatic pressure switch off

### Suitable for

- The operation of hydraulic crimping and cutting heads

Technical data		
Operating pressure	max. 700 bar	
Weight	12 kg	
Item	Part No.	
Foot pump 700 bar	<b>FHP2</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Accessories	Part No.	Page
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497

## PHD 2 Pneumatic/hydraulic pressure transmitter, 700 bar



- ▶ Manual retraction if required, also at high pressure

### Suitable for

- The operation of hydraulic crimping and cutting heads

Technical data		
Required air pressure	max. 6 bar	
Operating pressure	max. 700 bar	
Weight	6.3 kg	
Item	Part No.	
Pneumatic/hydraulic pressure transmitter	<b>PHD2</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Accessories	Part No.	Page
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497

## EHP 2 Electro hydraulic drive unit 400 V, 700 bar



► Compact dimensions and low weight combined with high conveying capacity

### Characteristics

- With AC motor
- Hydraulic hose, 2 m
- Three-stage safety foot switch
- Electronic control
- 70 % power-on time

### Suitable for

- The operation of hydraulic crimping and cutting heads

Technical data		
Version	Three-phase motor	
Rated output	0.55 kW	
Motor voltage	360 V - 440 V / 50 Hz	
Capacity	0.82 l / min.	
Operating pressure	max. 700 bar	
Weight	22.9 kg	
Operating mode	70 % power-on time	
Item	Part No.	
Electro-hydraulic pump, 400 V, 700 bar	<b>EHP2380</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2 m	HS22	497
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1	496
Accessories	Part No.	Page
Transport trolley for electro-hydraulic pump EHP 2	TW50	
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3	496
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497
Adapter Klauke sleeve to Greenlee plug	CMGSK	



## EHP 3 Electro hydraulic drive unit 400 V, 700 bar



- ▶ Continuous operation
- ▶ High conveying capacities with compact dimensions

### Characteristics

- With AC motor
- Hydraulic hose, 2 m
- Three-stage safety foot switch
- Electronic control

### Suitable for

- The operation of hydraulic crimping and cutting heads

### Technical data

Version	Three-phase motor
Rated output	1.1 kW
Motor voltage	360 V - 440 V / 50 - 60 Hz
Capacity	0.9 l / min.
Operating pressure	max. 700 bar
Weight	40.9 kg
Operating mode	100 % power-on time

Item	Part No.	
Electro-hydraulic pump, 400 V, 700 bar	<b>EHP3</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 2m	HS22	497
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1	496
Accessories	Part No.	Page
Transport trolley for electro-hydraulic pump EHP 3	TWEHP3	496
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3	497
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	
Adapter Klauke sleeve to Greenlee plug	CMGSK	

## EHP 4 Electro-hydraulic pumps, 700 bar



- ▶ High capacity
- ▶ Manually adjustable piston stroke speed / delivery volume of the pump
- ▶ Closed, compact and lockable housing (IP54 or higher) to protect against humidity, dust and unauthorised manipulation

### Characteristics

- Compatibility with Klauke hydraulic crimping and cutting heads
- For connecting to busbar machining centre
- For use in conjunction with the LSK 120 with adapter CMGSK for punching bus bars
- Compatible with Greenlee punching tools (round and special shape punches) with adapter CMGSK

### Additional information

- The hydraulic pumps can be individually configured as customer-specific system.

Technical data		
Version	AC	
Rated output	0.75 kW	
Motor voltage	EHP4115: 115 V/50 Hz, EHP4230: 230 V/50 Hz	
Capacity	0.82 l / min.	
Operating pressure	max. 700 bar	
Weight	28.3 kg	
Operating mode	70% power-on time	
Item	Part No.	
Electro-hydraulic pump, 115 V	<b>EHP4115</b>	
Electro-hydraulic pump, 230 V	<b>EHP4230</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 3 m	HS23	497
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	FTA1	496
Accessories	Part No.	Page
Two-hand safety controller for pumps EHP 2 to EHP 4	ZST3	496
Hydraulic hose, 3 m	HS23	497
Hydraulic hose, 4 m	HS24	497
Hydraulic hose, 5 m	HS25	497
Hydraulic hose, 6 m	HS26	497
Hydraulic hose, 8 m	HS28	497
Hydraulic hose, 10 m	HS210	497
Transport trolley for electro-hydraulic pump EHP 4	TW150	495
Adapter Klauke sleeve to Greenlee plug	CMGSK	

## AHP 700-L Battery powered hydraulic pump, 700 bar

- ▶ Compact and lightweight design for mobile use
- ▶ High capacity



### Characteristics

- Select programme from crimping, cutting, and punching
- Housing from impact-resistant, fibreglass reinforced polyamide
- Large display for monitoring, diagnostics and setting the pump
- Two powerful, high-capacity Li-Ion batteries
- Automatic retraction when operation is complete
- Manual retract stop with „teach-in“ (MRS+) for positioning control for multiple crimps
- Remote control with cable for easy operation of the battery-operated pump
- Maintenance display via LED
- All hydraulic hoses have coupling plug and coupling sleeve, oil filled
- High wearing comfort with padded shoulder strap

### Suitable for

- Operates all single-acting Klauke crimping, cutting and punching tools with 700 bar operating pressure
- The connection to busbar machining centre
- The punching of busbars in conjunction with the LSK 120 with adapter CMGSK

### Additional information

- Also available in country-specific variants, Part Number appendix „C“

Technical data	
Battery voltage	18 V
Battery capacity	2 x 4.0 Ah, Li-Ion
Charging time	22 min.
Weight incl. battery	(with two batteries) approx. 6.4 kg
Ambient temperature	-12 °C to +40 °C
Operating pressure	max. 700 bar
Max. oil volume;	approx. 800 ml
Dimensions	L x W x H: 330 x 160 x 280 mm

Item	Part No.		
Battery powered hydraulic pump, 700 bar	<b>AHP700L</b>		
Scope of supply	Part No.	Quantity	Page
Makita battery 18 V / 4.0 Ah, Li-Ion	RAL40	2	491
Makita quick-charger for 18 V Li-Ion battery	LGL1	1	494
Hydraulic hose, 2 m, oil filled	HSOEL2	1	497
Carrying strap with shoulder padding	TG3	1	495
Carrying bag	TT2	1	196
Remote control with 1.5 m cable	HTA4	1	499
Accessories	Part No.	Page	
Hydraulic hose, 3 m, oil filled	HSOEL3	497	
Hydraulic hose, 4 m, oil filled	HSOEL4	497	
Hydraulic hose, 5 m, oil filled	HSOEL5	497	
Hydraulic hose, 6 m, oil filled	HSOEL6	497	
Hydraulic hose, 8 m, oil filled	HSOEL8	497	
Hydraulic hose, 10 m, oil filled	HSOEL10	497	
18 V mains adapter for 230 V Voltage	NG2230	493	
Two-hand safety control for battery powered hydraulic pump AHP 700-L	ZST4	496	
Foot switch for battery powered hydraulic pump	FTA4		
Transport rucksack	TRAHP700L		
Variants	Part No.	Page	
AHP 700-L with transport rucksack	TRAHP700LSET		



## 767 Hydraulic hand pump



- ▶ Lightweight, portable hand pump
- ▶ Robust construction

### Characteristics

- All-purpose - works in every position
- Incl. mounting holes for work bench assembly

### Additional information

- In combination with punch cylinder 50170910 for all hole sizes

Technical data		
Dimension	330 x 100 x 100 mm	
Operating pressure	max. 460 bar	
Weight	2.7 kg	
Item	Part No.	
Hydraulic hand pump 767	<b>50132849</b>	
Accessories	Part No.	Page
Hydraulic hose 6.4 mm dia. x 0.9 m	50383167	498

## 1725 Hydraulic foot pump



- ▶ Foot operation facilitates two-handed operation of round and special shaped punches

### Characteristics

- Lockable pedal for storage and transport
- All-purpose

### Additional information

- In combination with punch cylinder 50170910 for all hole sizes

Technical data		
Dimension	400 x 200 x 150 mm	
Operating pressure	max. 460 bar	
Weight	5.0 kg	
Item	Part No.	
1725 Hydraulic foot pump	<b>50313533</b>	
Accessories	Part No.	Page
Hydraulic hose 6.4 mm dia. x 3 m	50377299	498

**RAL 1 Makita battery 18 V / 1.5 Ah Li-Ion (27 Wh)**



**Characteristics**

- No memory effect
- Extremely low self-discharge
- Low weight

**Suitable for**

- Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data	
Battery voltage	18 V
Battery capacity	1.5 Ah
Charging time	With LGL1: 15 min.
Cell technology	Li-Ion
Weight	0.4 kg
Item	Part No.
Makita battery 18 V / 1.5 Ah, Li-Ion	<b>RAL1</b>

**RAL 2 Makita battery 18 V / 3.0 Ah Li-Ion (54 Wh)**



**Characteristics**

- No memory effect
- Extremely low self-discharge
- Low weight

**Suitable for**

- Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data	
Battery voltage	18 V
Battery capacity	3.0 Ah
Charging time	With LGL1: 22 min.
Cell technology	Li-Ion
Weight	0.6 kg
Item	Part No.
Makita battery 18 V / 3.0 Ah, Li-Ion (54 Wh)	<b>RAL2</b>

**RAL 3 Battery 18 V / 3.3 Ah Li-Ion (54 Wh)**



**Characteristics**

- No memory effect
- Extremely low self-discharge
- Low weight

**Suitable for**

- Klauke safety cutter

Technical data	
Battery voltage	18 V
Battery capacity	3.3 Ah
Charging time	With LGL3: 60 min.
Ambient temperature	-20 °C to +40 °C
Cell technology	Li-Ion
Weight	0.6 kg
Item	Part No.
Battery 18 V / 3.3 Ah, Li-Ion (54 Wh)	<b>RAL3</b>





## Pumps

Accessories for hydraulic tools

### RAL 40 Makita battery 18 V / 4.0 Ah Li-Ion (72 Wh)



#### Characteristics

- No memory effect
- Extremely low self-discharge
- Light - same weight as the Makita 3.0 Ah battery

#### Suitable for

- Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data	
Battery voltage	18 V
Battery capacity	4.0 Ah
Charging time	With LGL1: 36 min.
Ambient temperature	-20 °C to +40 °C
Cell technology	Li-Ion
Weight	0.6 kg
Item	Part No.
Makita battery 18 V / 4.0 Ah, Li-Ion	<b>RAL40</b>

### RAL 4 Makita battery 18 V / 5.0 Ah, Li-Ion



#### Characteristics

- No memory effect
- Extremely low self-discharge
- Light - same weight as the Makita 3.0 Ah battery

#### Suitable for

- Next Generation battery-powered hydraulic tools with Makita battery mounting

Technical data	
Battery voltage	18 V
Battery capacity	5.0 Ah, Li-Ion
Charging time	With LGL1: 45 min.
Ambient temperature	-20 °C to +40 °C
Cell technology	Li-Ion
Weight	0.6 kg
Item	Part No.
Makita battery 18 V / 5.0 Ah, Li-Ion (90 Wh)	<b>RAL4</b>

### RAL B1 EU Bosch battery 18 V / 2.0 Ah, Li-Ion



Technical data	
Battery capacity	2.0 Ah
Charging time	With LGLB1EU: 15 min.
Cell technology	Li-Ion
Voltage range	18 V
Weight	0.4 kg
Item	Part No.
Bosch battery 18 V / 2.0 Ah, Li-Ion	<b>RALB1EU</b>



### RAL B2 EU Bosch battery 18 V / 5.0 Ah, Li-Ion



Technical data	
Battery voltage	18 V
Battery capacity	5.0 Ah, Li-Ion
Charging time	With LGLB1EU: 45 min.
Cell technology	Li-Ion
Weight	0.69 kg
Item	Part No.
Bosch battery 18 V / 5.0 Ah, Li-Ion	<b>RALB2EU</b>

### RAML1 battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)



Technical data	
Battery voltage	10.8 V
Battery capacity	1.5 Ah
Cell technology	Li-Ion
Weight	0.3 kg
Item	Part No.
Battery 10.8 V / 1.5 Ah, Li-Ion (16.2 Wh)	<b>RAML1</b>

### NG2 mains adapter 18 V for 120 V or 230 V mains voltage



#### Characteristics

- Temperature protection
- Current limiter
- Overload protection 250 V
- Cable lengths: 5 m

#### Suitable for

- For all Klauke tools with 18 V all-mains sets - Makita version

Technical data	
Mains supply	120 V / 230 V
Voltage range	18 V
Weight	0.8 kg
Item	Part No.
18 V mains adapter for 120 V Voltage	<b>NG2115</b>
18 V mains adapter for 230 V Voltage	<b>NG2230</b>



### LGL 1 Makita quick-charger for 18 V Li-Ion batteries



**Suitable for**

- Klauke Li-Ion Makita battery 18 V

Technical data	
Charging time	With RAL1: 15 min., with RAL2: 22 min.
Mains supply	230 V
Voltage range	18 V
Weight	1 kg
Item	Part No.
Makita quick-charger for 18 V Li-Ion battery	<b>LGL1</b>

### LGL 3 Makita quick-charger for 18V Li-Ion batteries



**Suitable for**

- Klauke Li-Ion Makita battery 18 V
- Connection to car cigarette lighter

Technical data	
Charging time	60 min.
Mains supply	220 - 240 V
Voltage range	18 V
Weight	0.6 kg
Item	Part No.
Charger for 18 V Li-Ion batteries	<b>LGL3</b>

### LGL B1 EU Bosch charger for 18 V Li-Ion batteries



**Characteristics**

- Charger for safety cutting unit batteries

**Suitable for**

- 18 V / 3.30 Ah Li-Ion batteries

Technical data	
Charging time	With RALB1EU.:15 min, RALB2EU: 45 min.
Mains supply	230 V
Voltage range	18 V
Weight	0.65 kg
Item	Part No.
Bosch quick-charger for 18 V Li-Ion battery	<b>LGLB1EU</b>

### LGML 1 Charger for 10.8 V Li-Ion batteries, 230 V



**Suitable for**

- Klauke Li-Ion battery 10.80 V

Technical data	
Cell technology	Li-Ion
Mains supply	220 - 240 V
Voltage range	10.8 V
Weight	0.5 kg
Item	Part No.
Charger for 10.80 V Li-Ion batteries, 230 V	<b>LGML1</b>

### TW 150 Transport trolley for electro-hydraulic pump EHP 4



Item	Weight kg	Part No.
Transport trolley for electro-hydraulic pump EHP 4	8.7	<b>TW150</b>

### TG 3 Carrying strap with shoulder padding



**Suitable for**

- Battery powered hydraulic pump AHP 700-L

Item	Part No.
Carrying strap with shoulder padding	<b>TG3</b>



## Pumps

Accessories for hydraulic tools

### FTA 3 / FTA 4 Two-hand safety controls for pumps



#### Suitable for

- Pumps: EHP 4 and AHP 700-L

Item	Part No.
Two-hand safety controller for pumps EHP 2 to EHP 4	<b>ZST3</b>
Two-hand safety control for battery powered hydraulic pump AHP 700-L	<b>ZST4</b>

### FTA 1 / FTA 4 Foot switches for pumps



#### Suitable for

- Pumps: EHP 4, HK 12/2 EL, AHP 700-L

Item	Part No.
Foot switch for electro-hydraulic pumps EHP 4 and HK 12/2 EL	<b>FTA1</b>
Foot switch for battery powered hydraulic pump AHP 700-L	<b>FTA4</b>

### T 15 Special hydraulic oil



#### Characteristics

- Environmentally-friendly hydraulic oil, quickly biodegradable
- 5 l canister

#### Suitable for

- Hydraulic pumps, exception: Safety cutter

Item	Part No.
Special hydraulic oil	<b>T15</b>

## Hydraulic oil

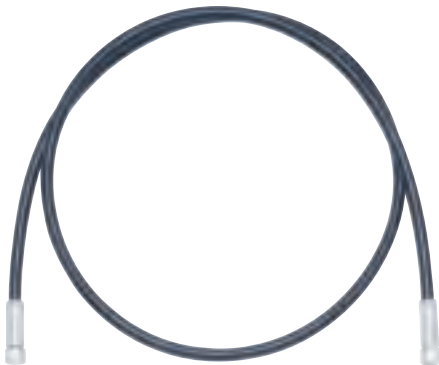


### Characteristics

- Specially-developed for GREENLEE hydraulic tools

Item	Part No.
Hydraulic oil 3.8 l	<b>90510593</b>
Hydraulic oil 0.95 l	<b>90508068</b>

## HS 2 Hydraulic hoses



### Suitable for

- Hydraulic crimping and cutting systems and pumps
- For connecting to hydraulic pumps FHP 2, PHD 2, EHP 2, EHP 3, EHP 4, HK12/2 EL, HK 25/2 EL, AS 65 FHP, AS 105 FHP, HK 25/2, HK 45

Item	Part No.
Hydraulic hose, 2 m	<b>HS22</b>
Hydraulic hose, 3 m	<b>HS23</b>
Hydraulic hose, 4 m	<b>HS24</b>
Hydraulic hose, 5 m	<b>HS25</b>
Hydraulic hose, 6 m	<b>HS26</b>
Hydraulic hose, 8 m	<b>HS28</b>
Hydraulic hose, 10 m	<b>HS210</b>

## HS OEL hydraulic hose, oil filled



### Characteristics

- For connecting to battery-powered hydraulic pump AHP 700-L

### Additional information

- Also available in country-specific variants, Part Number appendix „C“

Item	Part No.
Hydraulic hose, 2 m, oil filled	<b>HSOEL2</b>
Hydraulic hose, 3 m, oil filled	<b>HSOEL3</b>
Hydraulic hose, 4 m, oil filled	<b>HSOEL4</b>
Hydraulic hose, 5 m, oil filled	<b>HSOEL5</b>
Hydraulic hose, 6 m, oil filled	<b>HSOEL6</b>
Hydraulic hose, 8 m, oil filled	<b>HSOEL8</b>
Hydraulic hose, 10 m, oil filled	<b>HSOEL10</b>





## Pumps

Accessories for hydraulic tools

### Hydraulic hose 6.4 mm dia. x 3 m



#### Characteristics

- Filled with hydraulic oil

#### Suitable for

- Hydraulic foot pump 1725

Item	Part No.	
Hydraulic hose 6.4 mm dia. x 3 m	<b>50377299</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 3 m	90525159	
Coupler plug	90541693	
Dust cap	90541707	

### Hydraulic hose 6.4 mm dia. x 0.9 m



#### Characteristics

- Without hydraulic oil

#### Suitable for

- Hydraulic hand pump 767

Item	Part No.	
Hydraulic hose 6.4 mm dia. x 0.9 m	<b>50383167</b>	
Scope of supply	Part No.	Page
Hydraulic hose, 0.9 m	50063022	
Coupler plug	90541693	
Dust cap	90541707	

### KST 2 Coupler



#### Characteristics

- Including adapter

#### Suitable for

- Hydraulic crimping and cutting systems and pumps

Item	Part No.
Coupler plug	<b>KST2</b>

## KMF 1 Coupler for crimping and cutting heads



### Characteristics

- KMF 1: For connecting to hydraulic crimping/cutting heads: PK 18, PK 22, PK 120/42, PK 120 U, PK 25/2, PK 45, PK 60 VP, PK 60 VP/FT, PK 60 UNV, THK 18, THK 22, THK 120, SDG 45, SDG 50, SDG 55, SDG 85/2, SDG 105, SDK 65, SDK 85, SDK 105, SDK 120
- Includes barrel nipple
- With 1/4" connection (external thread)

Item	Part No.
Coupler for crimping and cutting heads with barrel nipple	<b>KMF1</b>

## DNP 2 Barrel nipple



### Suitable for

- To connect and to extend hydraulic hoses HS 2

Item	Part No.
Barrel nipple	<b>DNP2</b>

## HTA 4 remote control for hydraulic pump



### Suitable for

- Battery powered hydraulic pump AHP 700-L

Item	Part No.
Remote control with 1.5 m cable	<b>HTA4</b>

# EFFORTLESS OPERATIONS.

Safety, ergonomics and reliability – these quality features are a given in day-to-day work. Klauke hand tools are designed for this very purpose.





# Hand tools

<b>VDE tools</b>	<b>502</b>
Pliers	504
Screwdrivers	508
Assortments and sets	512
Safety tools	516
Fully insulated tools	521
Tool cases	526

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<b>Standard tools and accessory</b>	<b>527</b>
Water pump pliers, fitting pliers	528
Electronic / precision mechanic's tools	529
Bits, holders and adapters	530
Assortments and sets	532
Measuring and marking	535
Basic tools	537
Tool cases	541

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<b>Wire stripping tools</b>	<b>548</b>
Wire stripping tools	549
Stripping tools	552

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<b>Stripping tools for communication technology</b>	<b>554</b>
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# SAFETY-TESTED RANGE – VDE TOOLS

For the safety of our customers, we also have our tools tested by independent bodies. The "VDE Tool" marking indicates that this special Klauke range conforms to the current directives of the safety testing procedure to EN/IEC 60900. All tools with the VDE name are approved to 1000 V alternating current and 1500 V direct current. Special tool steel creates additional robustness.



#### In brief

- ▶ Conforms to current directive EN/IEC 60900
- ▶ Manufactured using special tools steel
- ▶ Effortless operations due to optimal ergonomic design



## ▶ When you need to go deeper: SLIM range

SLIM range screwdrivers have a tapered blade at the front. Deeper screws, such as those in circuit breakers, can be reached with ease. No slipping and rolling due to special handle shape. With its narrow tip, the SLIM range is best suited for loosening cables in spring terminals.

- For use in confined areas due to tapered blade
- Safe operations due to rolling protection



## ▶ More than just a force: Power combi-pliers

The power combi-pliers are really multi-talented: Cutting, gripping, counter holding, inserting conductors. Hence the name combi-pliers. Four tools in one: You need fewer tools and the power assist function also helps you when working.

- Cuts cables, conductors and wires
- Grips flat and round material such as safety splints
- Simplifies the insertion of cables into the clamp or circuit breaker
- Can also be used to tighten nuts

## ▶ Everything under control: VDE cable cutters

The VDE cable cutters are hard-wearing. They withstand cold impact tests to -25 °C, tests of the adhesion of the insulating material to 500 N and individual voltage tests in a water bath with 10,000 V AC. The reward: Certification to EN/IEC 60900. Completely safe.

- Extra hand protection against flying sparks
- Safe operations due to slip-proof overlay
- Safe even under extreme conditions
- For fine and superfine stranded copper and aluminium cables





## VDE Cable cutter



### Characteristics

- Adjustable joint
- Cuts fine and superfine stranded copper and aluminium cable

Part No.	KL010160IS	KL010210IS
Item	VDE Cable cutter 160 mm	VDE Cable cutter 210 mm
Dimension mm	160	210
Weight g	225	340
Cutting power up to dia.	16	25

## VDE Power combination pliers



### Characteristics

- With combination spanner from 11 - 17 mm (M8 - M10)
- Holds flat and round material
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL020165IS	KL020180IS	KL020205IS
Item	VDE Power combination pliers, 165 mm	VDE Power combination pliers, 180 mm	VDE Power combination pliers, 205 mm
Dimension mm	165	180	205
Weight g	200	255	280
Cutting power soft wire dia. mm	4.0	5.2	5.9
Cutting power medium wire dia. mm	3.1	3.4	3.8
Cutting power hard wire dia. mm	2.0	2.2	2.5

## VDE Power combination pliers, angled

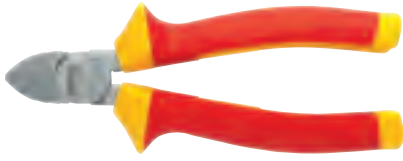


### Characteristics

- Comfortable working due to ergonomically optimised, 45° angled head
- With combination spanner from 11 - 17 mm (M8 - M10)
- Holds flat and round material
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	KL026205IS
Item	VDE Power combination pliers, offset, 205 mm
Dimension mm	205
Weight g	285
Cutting power soft wire dia. mm	5.9
Cutting power medium wire dia. mm	3.8
Cutting power hard wire dia. mm	2.5

## VDE Side cutter



### Characteristics

- Improved cutting of insulated cables from slip-reducing wave profiled blades
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	<b>KL040145IS</b>	<b>KL040160IS</b>	<b>KL040180IS</b>
Item	VDE Side cutter 145 mm	VDE Side cutter 160 mm	VDE Side cutter 180 mm
Dimension mm	145	160	180
Weight g	180	210	265
Cutting power soft wire dia. mm	5.0	6.0	7.0
Cutting power medium wire dia. mm	2.5	3.5	4.0
Cutting power hard wire dia. mm	1.7	2.0	2.5
Cutting power up to dia.	8.0	11.0	13.0

## VDE Electricians side cutter

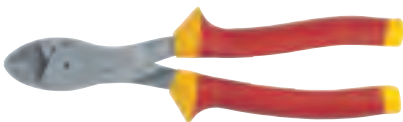


### Characteristics

- High cutting performance for superfine wires due to hardened precision cutters
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	<b>KL042190IS</b>
Item	VDE Electricians side cutter, 190 mm
Dimension mm	190
Weight g	285
Cutting power soft wire dia. mm	2.0
Cutting power medium wire dia. mm	1.0
Cutting power up to dia.	4.0

## VDE Power side cutter



### Characteristics

- Improved cutting of insulated cables from slip-reducing wave profiled blades
- Optimum handling due to ergonomically-shaped handle
- High cutting performance on hard wires and piano wires

Part No.	<b>KL045180IS</b>	<b>KL044200IS</b>	<b>KL045240IS</b>
Item	VDE Power side cutter, 180 mm	VDE Electric power side cutter, 200 mm	VDE Power side cutter, 240 mm
Dimension mm	180	200	240
Weight g	285	280	420
Cutting power soft wire dia. mm	3.7	4.0	4.5
Cutting power medium wire dia. mm	2.6	2.8	3.5
Cutting power hard wire dia. mm	2.2		3.0
Cutting power piano wire dia. mm		2.5	



## VDE Lever power side cutter

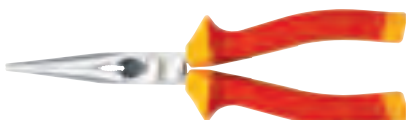


### Characteristics

- 40% force saving
- High cutting performance for superfine wires due to hardened precision cutters
- Special tool steel drop-forged, oil-hardened
- Cuts medium-hard wires, e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire as well as piano wire

Part No.	<b>KL046200IS</b>
Item	VDE Lever power side cutter, 200 mm
Dimension mm	200
Cutting power medium wire dia. mm	4.5
Cutting power hard wire dia. mm	3.5
Cutting power piano wire dia. mm	3.0

## VDE Telephone pliers, straight

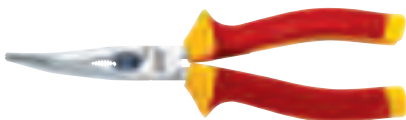


### Characteristics

- Long, flat/round jaws
- Optimum hold due to toothed grip area
- Cutting edge inductive hardened
- With combination spanner from 11 - 17 mm (M8 - M10)
- With wire cutter for soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	<b>KL050205IS</b>
Item	VDE long-nose pliers, straight, 205 mm
Dimension mm	205
Weight g	215
Cutting power soft wire dia. mm	3.9
Cutting power medium wire dia. mm	3.2
Cutting power hard wire dia. mm	2.2

## VDE Telephone pliers, curved

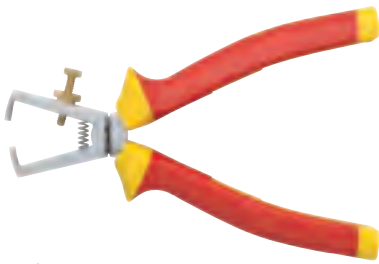


### Characteristics

- Long, 45° offset, flat/round jaws
- Optimum hold due to toothed grip area
- Cutting edge inductive hardened
- With combination spanner from 11 - 17 mm (M8 - M10)
- Cuts soft wires, e.g. copper, aluminium, medium-hard wires e.g. nails, wire nails and hard wires, e.g. wire cable, steel wire

Part No.	<b>KL055205IS</b>
Item	VDE long-nose pliers, bent, 205 mm
Dimension mm	205
Weight g	215
Cutting power soft wire dia. mm	3.9
Cutting power medium wire dia. mm	3.2
Cutting power hard wire dia. mm	2.2

## VDE Wire stripper

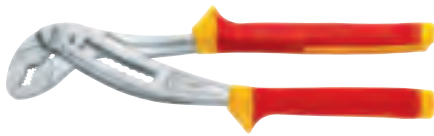


### Characteristics

- With opening spring and V-shaped cutting edges
- With setting screw for setting the cable diameter

Part No.	<b>KL060160IS</b>
Item	VDE Wire stripper, 160 mm
Dimension mm	160
Weight g	185

## VDE Water pump pliers, jaw width 50 mm



### Characteristics

- Jaw width 50 mm
- Safe working due to clamp protection and safety joint
- Ratchet adjustment
- Optimum hold due to toothed grip area

Part No.	<b>KL070250IS</b>
Item	VDE Water pump pliers, jaw width 50 mm
Dimension mm	250
Weight g	410

## Automatic VDE wire stripper 0.2 - 6 mm<sup>2</sup>



### Characteristics

- For safe working on live conductors up to 1000 V
- Adjustable length stop from 5 - 12 mm
- Locking function to protect the blades

### Suitable for

- Flexible and solid conductors from 0.2 - 6 mm<sup>2</sup>

Part No.	<b>KL760180IS</b>
Item	Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>
Dimension mm	215
Weight g	130

## VDE Slotted screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL1007525IS</b>	75	67	18	22	1
<b>KL10010030IS</b>	100	67	18	28	1
<b>KL10010035IS</b>	100	67	18	30	1
<b>KL10010040IS</b>	100	79	23	44	1
<b>KL10012555IS</b>	125	89	27	70	1
<b>KL10015065IS</b>	150	89	27	86	1
<b>KL10017580IS</b>	175	98	32	135	1

## VDE Slotted screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL10010035ISLIM</b>	100	67	18	35,9	1
<b>KL10010040ISLIM</b>	100	79	23	44	1
<b>KL10012555ISLIM</b>	125	89	27	70	1
<b>KL10012565ISLIM</b>	125	89	27	86	1

## VDE Phillips screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL110PH1IS</b>	80	89	27	52	1
<b>KL110PH2IS</b>	100	98	32	80	1
<b>KL110PH3IS</b>	150	98	32	145	1

## VDE Phillips screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL110PH1ISLIM</b>	80	89	27	52	1
<b>KL110PH2ISLIM</b>	100	98	32	80	1

## VDE Pozidriv screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL120PZ1IS</b>	80	89	27	49	1
<b>KL120PZ2IS</b>	100	98	32	76	1
<b>KL120PZ3IS</b>	150	98	32	140	1

## VDE Pozidriv screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL120PZ1ISLIM</b>	80	89	27	49	1
<b>KL120PZ2ISLIM</b>	100	98	32	76	1

## VDE Plus/Minus-Pozidriv screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL130PM1IS</b>	80	89	27	52	1
<b>KL130PM2IS</b>	100	98	32	80	1

## VDE Plus/Minus-Pozidriv screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL130PM1ISLIM</b>	80	89	27	52	1
<b>KL130PM2ISLIM</b>	100	98	32	80	1

## VDE TORX® screwdriver



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL150TX10IS</b>	100	79	23	45	1
<b>KL150TX15IS</b>	100	89	27	45	1
<b>KL150TX20IS</b>	125	98	32	69	1
<b>KL150TX25IS</b>	125	98	32	69	1
<b>KL150TX30IS</b>	150	98	32	96	1

## VDE TORX® screwdriver, Slim Line



### Characteristics

- Ergonomically-shaped handle with optimum force transmission
- A roll-off protection prevents rolling away on inclined surfaces
- Reduced space requirement for use in confined spaces

Part No.	Length of shaft mm	Handle length mm	Handle width mm	Weight g	Packing unit/pcs
<b>KL150TX15ISLIM</b>	100	89	27	45	1
<b>KL150TX20ISLIM</b>	125	98	32	69	1
<b>KL150TX25ISLIM</b>	125	98	32	69	1

## VDE-M-TEC Screwdriver for hexagonal nuts



### Characteristics

- With box spanner tube - immersion depth approx. 41 mm - optimal for deep-seated screws and nuts
- With spring-loaded magnetic body

Item	Dimension mm	For thread	Weight g	Part No.
VDE Screwdriver M-TEC size 5.5	110 x 5.5	M3	100	<b>KL14555IS</b>
VDE Screwdriver M-TEC size 6	110 x 6.0	M3.5	100	<b>KL14560IS</b>
VDE Screwdriver M-TEC size 7	110 x 7.0	M4	100	<b>KL14570IS</b>
VDE Screwdriver M-TEC size 8	110 x 8.0	M5	110	<b>KL14580IS</b>
VDE Screwdriver M-TEC size 10	125 x 10.0	M6	110	<b>KL145100IS</b>
VDE Screwdriver M-TEC size 13	110 x 13.0	M8	110	<b>KL145130IS</b>

## Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V



### Characteristics

- Single-pole
- With heavy duty handle

Item	Dimension mm	Weight g	Part No.
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	73 x 3.0 x 0.8	30	<b>KL19073IS</b>

## OUR HIGH-QUALITY VDE TOOLS

Pozidriv, Plus/Minus, Pozidriv and Torx - as modern screw drives are called - just like slotted and cross head (Phillips), improve the force transmission between tool and screw. For cost reasons, inexpensive cross-slotted screwdrivers are often used to tighten Pozidriv or even Plus/Minus screws. The results: unreliable connections or even destroyed screw heads, preventing them from being loosened at a later time.

On the subject of screwdrivers, it is therefore extremely important to recognise the screws to be processed, to use the right tool and to work to professional standards.



### VDE Pliers set, 3-pce.



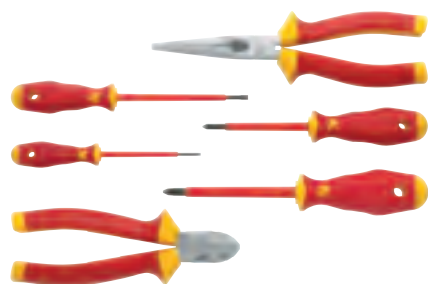
Item	Part No.	
VDE Plier set, 3-pieces	<b>KL303IS</b>	
Scope of supply	Part No.	Page
VDE Power combination pliers, 180 mm	KL020180IS	504
VDE Side cutter 160 mm	KL040160IS	505
VDE long-nose pliers, straight, 205 mm	KL050205IS	506

### VDE Pliers set, 4-pce.



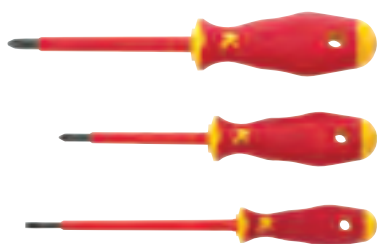
Item	Part No.	
VDE Plier set, 4-pieces	<b>KL304IS</b>	
Scope of supply	Part No.	Page
VDE Power combination pliers, 180 mm	KL020180IS	504
VDE Electric power side cutter, 200 mm	KL044200IS	505
VDE long-nose pliers, straight, 205 mm	KL050205IS	506
VDE Wire stripper, 160 mm	KL060160IS	507

### VDE Pliers/screwdriver set, 6-pce.



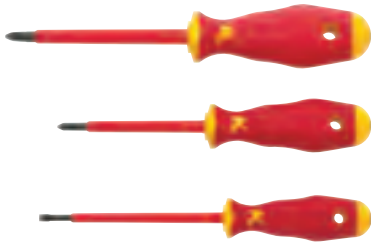
Item	Part No.	
Pliers/screwdriver set, 6-pce.	<b>KL306IS</b>	
Scope of supply	Part No.	Page
VDE long-nose pliers, straight, 205 mm	KL050205IS	506
VDE Side cutter 160 mm	KL040160IS	505
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS	508

### VDE Screwdriver set, 3-pce.



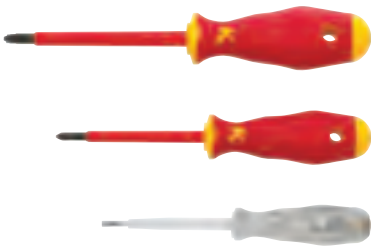
Item	Part No.	
VDE Screwdriver set, 3-pieces	<b>KL391IS</b>	
Scope of supply	Part No.	Page
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
VDE Slotted screwdriver, 3.5 x 0.6 mm	KL10010035IS	508

### VDE Screwdriver set, 3-pce.



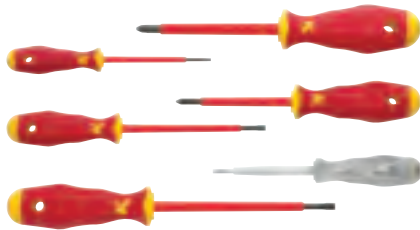
Item	Part No.	
VDE Screwdriver set, 3-pieces	<b>KL392IS</b>	
Scope of supply	Part No.	Page
VDE Pozidriv screwdriver, PZ1	KL120PZ1IS	509
VDE Pozidriv screwdriver, PZ2	KL120PZ2IS	509
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS	508

### VDE Screwdriver set, 3-pce.



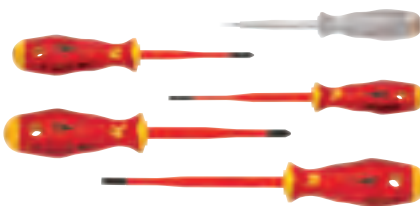
Item	Part No.	
VDE Screwdriver set, 3-pieces	<b>KL393IS</b>	
Scope of supply	Part No.	Page
VDE Plus/Minus-Pozidriv screwdriver, Z1	KL130PM1IS	509
VDE Plus/Minus-Pozidriv screwdriver, Z2	KL130PM2IS	509
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS	510

### VDE Screwdriver set, 6-pce.



Item	Part No.	
VDE Screwdriver set, 6-pce.	<b>KL390IS</b>	
Scope of supply	Part No.	Page
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555IS	508
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS	510

### VDE Screwdriver set Slim Line, 5-pce.



#### Characteristics

- Reduced blade for optimum fit
- Ergonomically-shaped handle with optimum force transmission
- Anti-roll-guard

Item	Part No.	
VDE Screwdriver set Slim Line, 5-pce.	<b>KL390ISLIM</b>	
Scope of supply	Part No.	Page
VDE Slotted screwdriver 3.5 x 0.6 x 100 Slim Line	KL10010035ISLIM	508
VDE Slotted screwdriver 5.5 x 1.0 x 125 Slim Line	KL10012555ISLIM	508
VDE Pozidriv screwdriver PZ1 Slim Line	KL120PZ1ISLIM	509
VDE Pozidriv screwdriver PZ2 Slim Line	KL120PZ2ISLIM	509
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS	510



## VDE Screwdriver set Slim Line, 6-pce., case



### Characteristics

- Reduced blade for optimum fit
- Ergonomically-shaped handle with optimum force transmission
- Anti-roll-guard

Item	Part No.	
VDE Screwdriver set Slim Line, 6-pce., case	<b>KL391ISLIM</b>	
Scope of supply	Part No.	Page
VDE Slotted screwdriver 3.5 x 0.6 x 100 Slim Line	KL10010035ISLIM	509
VDE Slotted screwdriver 4.0 x 0.8 x 100 Slim Line	KL10010040ISLIM	509
VDE Slotted screwdriver 5.5 x 1.0 x 125 Slim Line	KL10012555ISLIM	509
VDE Phillips screwdriver PH2 Slim Line	KL110PH2ISLIM	509
VDE Pozidriv screwdriver PZ1 Slim Line	KL120PZ1ISLIM	510
VDE Pozidriv screwdriver PZ2 Slim Line	KL120PZ2ISLIM	510

## Klauke E-smart box 13-pce.

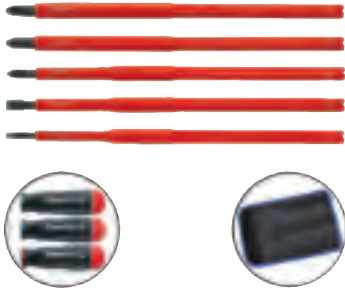


### Characteristics

- 10 IEC exchangeable blades for all applications incl. contactless voltage tester
- Secure grip of blades in the handle by automatic locking
- Snap-on rotating cap and soft coating zone for use as a precision tool
- Safety tool acc. to EN/IEC 60900
- Blades can be re-ordered individually

Item	Part No.	
Klauke E-smart box 12-pce.	<b>KL301IS</b>	
Scope of supply	Part No.	Page
Blade 2.5 x 0.4 mm	KLE300IS1	
Blade 3.5 x 0.6 mm	KLE300IS3	
Blade 4.0 x 0.8 mm	KLE300IS4	
Blade 5.5 x 1.0 mm	KLE300IS5	
Blade PH 1	KLE300IS6	
Blade PH 2	KLE300IS7	
Blade PZ 2	KLE300IS8	
Blade TX 20	KLE300IS11	
Blade Plus/Minus-Pozidriv Z1	KLE300IS13	
Blade Plus/Minus-Pozidriv Z 2	KLE300IS14	
Rotating cap	KLE300IS15	
E-smart handle 93 x 32 mm	KLE300IS12	
GT-12A Contactless voltage tester 50 - 1.000 V	52063422	574

## VDE replaceable blades, shank 1/4"



### Characteristics

- Blades from special chrome/molybdenum/vanadium alloy
- Standard 1/4" mounting for use with torque handles
- Blade length: 170 mm

Item	Part No.	
Tool bag, equipped with 9 VDE replaceable blades	<b>KL390TB9</b>	
VDE Slotted blade, 3.5 x 0.6 mm in blister pack	<b>KL400S35170ISSB</b>	
VDE Slotted blade, 4.0 x 0.8 mm in blister pack	<b>KL400S40170ISSB</b>	
VDE Slotted blade, 5.5 x 1.0 mm in blister pack	<b>KL400S55170ISSB</b>	
VDE Philips blade, PH1 in blister pack	<b>KL400PH1170ISSB</b>	
VDE Philips blade, PH2 in blister pack	<b>KL400PH2170ISSB</b>	
VDE Pozidriv blade, PZ1 in blister pack	<b>KL400PZ1170ISSB</b>	
VDE Pozidriv blade, PZ2 in blister pack	<b>KL400PZ2170ISSB</b>	
VDE Plus/Minus-Pozidriv blade, PM1 in blister pack	<b>KL400PM1170ISSB</b>	
VDE Plus/Minus-Pozidriv blade, PM2 in blister pack	<b>KL400PM2170ISSB</b>	
Accessories	Part No.	Page
Tool bag, empty	<b>KL390TL</b>	
Nm handle 0.6 - 1.5 Nm	<b>KLE3871513</b>	
Nm handle 1.5 - 3.0 Nm	<b>KLE3883013</b>	
Nm handle 3.0 - 5.4 Nm	<b>KLE3895413</b>	



### NH safety handle with guard



#### Characteristics

- Designation: 1000 V
- Acc. to DIN VDE 0680/4
- Made from impregnated leather
- With non-slip and cuff protection

#### Suitable for

- For NH fuses sizes 00-3



Item	Weight g	Part No.
NH safety handle with guard	470	<b>KL600</b>

### Electricians safety helmet



#### Characteristics

- Designation: 1000 V
- To DIN EN 397
- 440 V AC
- Sizes adjustable



Item	Weight g	Part No.
Electricians safety helmet	370	<b>KL602GELB</b>

### Electricians safety visor



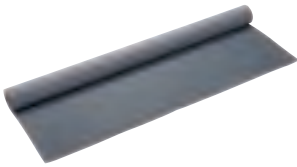
#### Characteristics

- Designation: 1000 V
- To VDE
- Suitable for helmet KL602GELB



Item	Weight g	Part No.
Electricians safety visor	195	<b>KL603</b>

## Insulated stand mat



### Characteristics

- Tested acc. to DIN 0303, part 21
- Safety mat for safe working with live parts in high voltage areas up to 1.000 Volt
- Penetration-proof to 14.4 kV/mm (>50 kV/4 mm)
- Slip proof, thereby increased sure-footedness

Item	Dimension mm	Weight g	Part No.
Insulating floor mat	1000 x 1000 x 4	5300	<b>KL620S1000</b>

## Rubber insulating blanket



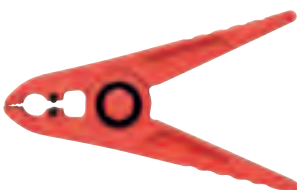
### Characteristics

- Tested acc. to DIN VDE 0680, part 1
- Test voltage: 5 kV/1 min.
- Insulating cover
- Penetration resistant
- Upper and lower side flat

Item	Dimension mm	Weight g	Part No.
Rubber cover/blanket, small	500 x 500 x 1.6	440	<b>KL625A500</b>
Rubber cover/blanket, large	1000 x 1000 x 1.6	1900	<b>KL625A1000</b>



## Plastic clamp



### Characteristics

- For securing rubber towels

Item	Dimension mm	Weight g	Part No.
Plastic clamp for rubber cover/blanket	150	70	<b>KL628</b>



## Protective gloves



### Characteristics

- To DIN EN 60903

### Suitable for

- For working in voltage ranges up to 1000 Volt

Item	Dimension mm	Weight g	Part No.
Protective gloves, size 9	Size 09	250	<b>KL60509</b>
Protective gloves, size 10	Size 10	250	<b>KL60510</b>
Protective gloves, size 11	Size 11	250	<b>KL60511</b>

## Cotton gloves



### Characteristics

- Inner gloves from cotton
- For use with protective gloves, Part No. KL60509 / KL60510

Item	Weight g	Part No.
Cotton gloves	50	<b>KL605U</b>

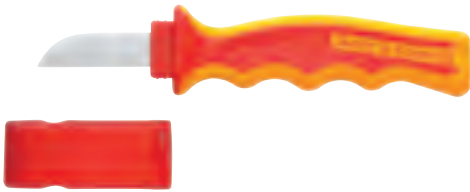
# SAFETY FIRST !

Think about your safety and protect yourself from overvoltages in electrical systems!

Wear safety gloves to DIN EN 60903 and safety glasses!



### Cable knife, straight



#### Characteristics

- With straight blade and safety cap
- Blade length: 50 mm

Item	Dimension mm	Weight g	Part No.
Cable knife, straight	200	105	<b>KL640GK</b>

### Cable knife with hooked blade



#### Characteristics

- With hooked blade and safety cap
- Blade length: 40 mm
- Special blade tip to protect insulation of conductor

Item	Dimension mm	Weight g	Part No.
Cable knife with hooked blade	190	100	<b>KL642HK</b>

### Cable knife with blade protection, 1000 V



Item	Part No.
Cable knife with blade protection, 1000 V	<b>KL645GSK</b>

## Tweezers



### Characteristics

- Straight and pointed tips
- With 2-layer safety insulation
- Non-slip protection

Item	Dimension mm	Weight g	Part No.
Tweezers	130	30	<b>KL690130</b>

## Cleaning brush



### Characteristics

- Brush width 45 mm
- All-plastic version

Item	Weight g	Part No.
Cleaning brush	75	<b>KL698</b>

## VDE Expansion wedge



Item	Part No.
Guide wedge	<b>K610</b>

## Fully insulated tool set, 1/2", 20-piece



### Characteristics

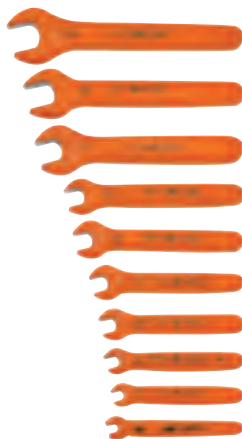
- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- Vanadium special steel acc. to DIN 7448

### Suitable for

- For working in voltage ranges up to 1.000 Volt

Item	Part No.	
Fully insulated tool set, 1/2", 20-piece	<b>KL1300IS12B20</b>	
Scope of supply	Part No.	Page
Case KL1300L	KL1300L	
Ratchet 1/2" drive	KL1000IS12	522
T-wrench 1/2" drive	KL1299IS12	522
Extension 1/2" drive x 250 mm long	KL1290IS12250	523
Extension 1/2" drive x 125 mm long	KL1290IS12125	523
Socket 1/2" drive, AF 10 mm	KL1240IS1210	523
Socket 1/2" drive, AF 11 mm	KL1240IS1211	523
Socket 1/2" drive, AF 12 mm	KL1240IS1212	523
Socket 1/2" drive, AF 13 mm	KL1240IS1213	523
Socket 1/2" drive, AF 14 mm	KL1240IS1214	523
Socket 1/2" drive, AF 17 mm	KL1240IS1217	523
Socket 1/2" drive, AF 19 mm	KL1240IS1219	523
Socket 1/2" drive, AF 22 mm	KL1240IS1222	523
Socket 1/2" drive, AF 24 mm	KL1240IS1224	523
Socket 1/2" drive for slotted screws, 5.5 mm	KL1200IS1255	520
Socket 1/2" drive for Phillips screws, PH2	KL1210IS12PH2	521
Socket 1/2" drive for Plus/Minus-Pozidriv PM2	KL1230IS12PM2	520
Cable knife, straight	KL640GK	519
VDE Side cutter 180 mm	KL040180IS	505
VDE Slotted screwdriver, 3.5 x 0.6 mm	KL10010035IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555IS	508

## Fully insulated open-ended spanner



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- DIN 7448 from vanadium special steel

### Suitable for

- Hexagonal head screws

Item	Part No.
Fully insulated open-ended spanner 6 AF	<b>KL1100IS6</b>
Fully insulated open-ended spanner 7 AF	<b>KL1100IS7</b>
Fully insulated open-ended spanner 8 AF	<b>KL1100IS8</b>
Fully insulated open-ended spanner 10 AF	<b>KL1100IS10</b>
Fully insulated open-ended spanner 11 AF	<b>KL1100IS11</b>
Fully insulated open-ended spanner 12 AF	<b>KL1100IS12</b>
Fully insulated open-ended spanner 13 AF	<b>KL1100IS13</b>
Fully insulated open-ended spanner 17 AF	<b>KL1100IS17</b>
Fully insulated open-ended spanner 19 AF	<b>KL1100IS19</b>
Fully insulated open-ended spanner 22 AF	<b>KL1100IS22</b>



## Torque wrench - Compact - 3/8" and 1/2" drive



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- With automatic release
- Positive locking system on the square end with pull-off force to 50 Nm
- Set the response value using the rotary grip
- Quickly read-off the values on the scale
- +/- 4% response accuracy
- Versatile use thanks to small dimensions

Item	Part No.
Torque wrench compact, 3/8", drive 5 - 25 Nm	<b>KL1000IS38NM25</b>
Torque wrench compact, 1/2", drive 5 - 25 Nm	<b>KL1000IS12NM25</b>

## Torque wrench - 3/8" and 1/2" drive



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- With automatic release
- Positive locking system on the square end with pull-off force to 50 Nm
- Set the response value using the rotary grip
- Quickly read-off the values on the scale
- +/- 4% response accuracy

Item	Part No.
Torque wrench, 3/8", 2 - 27 Nm	<b>KL1000IS38NM27</b>
Torque wrench, 3/8", 5 - 50 Nm	<b>KL1000IS38NM50</b>
Torque wrench, 1/2", 2 - 27 Nm	<b>KL1000IS12NM27</b>
Torque wrench, 1/2", 5 - 50 Nm	<b>KL1000IS12NM50</b>

## Ratchet - 3/8" and 1/2" drive

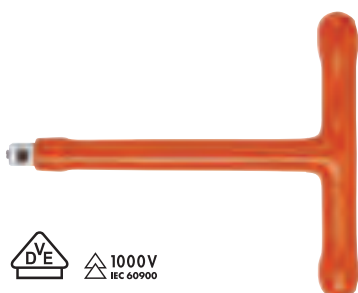


### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- Chrome vanadium steel
- One-hand operation

Item	Part No.
Ratchet 3/8" drive	<b>KL1000IS38</b>
Ratchet 1/2" drive	<b>KL1000IS12</b>

## T-wrench 3/8" and 1/2" drive



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- Chrome vanadium steel

Item	Part No.
T-wrench 3/8" drive	<b>KL1299IS38</b>
T-wrench 1/2" drive	<b>KL1299IS12</b>

## Extension 3/8" and 1/2" drive



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- Chrome vanadium steel

Item	Dimension mm	Part No.
Extension 3/8" drive, 125 mm	125	<b>KL1290IS38125</b>
Extension 3/8" drive x 250 mm long	250	<b>KL1290IS38250</b>
Extension 1/2" drive x 125 mm long	125	<b>KL1290IS12125</b>
Extension 1/2" drive x 250 mm long	250	<b>KL1290IS12250</b>

## Hexagonal sockets 3/8" and 1/2" drive



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- DIN 7448 from vanadium special steel

### Suitable for

- For hex. head screws

Item	Part No.
Socket 3/8" drive, AF 10 mm	<b>KL1240IS3810</b>
Socket 3/8" drive, AF 11 mm	<b>KL1240IS3811</b>
Socket 3/8" drive, AF 12 mm	<b>KL1240IS3812</b>
Socket 3/8" drive, AF 13 mm	<b>KL1240IS3813</b>
Socket 3/8" drive, AF 14 mm	<b>KL1240IS3814</b>
Socket 3/8" drive, AF 17 mm	<b>KL1240IS3817</b>
Socket 3/8" drive, AF 19 mm	<b>KL1240IS3819</b>
Socket 1/2" drive, AF 10 mm	<b>KL1240IS1210</b>
Socket 1/2" drive, AF 11 mm	<b>KL1240IS1211</b>
Socket 1/2" drive, AF 12 mm	<b>KL1240IS1212</b>
Socket 1/2" drive, AF 13 mm	<b>KL1240IS1213</b>
Socket 1/2" drive, AF 14 mm	<b>KL1240IS1214</b>
Socket 1/2" drive, AF 16 mm	<b>KL1240IS1216</b>
Socket 1/2" drive, AF 17 mm	<b>KL1240IS1217</b>
Socket 1/2" drive, AF 19 mm	<b>KL1240IS1219</b>
Socket 1/2" drive, AF 22 mm	<b>KL1240IS1222</b>
Socket 1/2" drive, AF 24 mm	<b>KL1240IS1224</b>
Socket 1/2" drive, AF 27 mm	<b>KL1240IS1227</b>



## Allen key sockets 3/8" and 1/2" drive



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- DIN 7448 from vanadium special steel

### Suitable for

- Hexagon socket

Item	Part No.
Socket 3/8" drive for Allen key, AF 4 mm	<b>KL1260IS38I4</b>
Socket 3/8" drive for Allen key, AF 5 mm	<b>KL1260IS38I5</b>
Socket 3/8" drive for Allen key, AF 6 mm	<b>KL1260IS38I6</b>
Socket 3/8" drive for Allen key, AF 8 mm	<b>KL1260IS38I8</b>
Socket 1/2" drive for Allen key, AF 4 mm	<b>KL1260IS12I4</b>
Socket 1/2" drive for Allen key, AF 5 mm	<b>KL1260IS12I5</b>
Socket 1/2" drive for Allen key, AF 6 mm	<b>KL1260IS12I6</b>
Socket 1/2" drive for Allen key AF 8 mm	<b>KL1260IS12I8</b>

## Screwdriver sockets 3/8" and 1/2" drive for Plus/Minus-Pozidriv screws



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- DIN 7448 from vanadium special steel

### Suitable for

- Plus/Minus-Pozidriv screws

Item	Part No.
Socket 3/8" drive for Plus/Minus-Pozidriv PM1	<b>KL1230IS38PM1</b>
Socket 3/8" drive for Plus/Minus-Pozidriv PM2	<b>KL1230IS38PM2</b>
Socket 3/8" drive for Plus/Minus-Pozidriv PM3	<b>KL1230IS38PM3</b>
Socket 1/2" drive for Plus/Minus-Pozidriv PM1	<b>KL1230IS12PM1</b>
Socket 1/2" drive for Plus/Minus-Pozidriv PM2	<b>KL1230IS12PM2</b>
Socket 1/2" drive for Plus/Minus-Pozidriv PM3	<b>KL1230IS12PM3</b>

## Screwdriver sockets - 3/8" and 1/2" for slotted screws



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- DIN 7448 from vanadium special steel

### Suitable for

- Slotted screws 5.5

Item	Part No.
Socket 3/8" drive for slotted screws, 5.5 mm	<b>KL1200IS38S5</b>
Socket 1/2" drive for slotted screws, 5.5 mm	<b>KL1200IS12S5</b>

## Screwdriver sockets - 3/8" and 1/2" for Philips PH 2 screws



### Characteristics

- Fully insulated acc. to EN 60900
- 2-colour dipped insulation - outside orange / inside yellow
- DIN 7448 from vanadium special steel

### Suitable for

- Philips PH2 screws



Item	Part No.
Socket 3/8" drive for Phillips screws, PH2	<b>KL1210IS38PH2</b>
Socket 1/2" drive for Phillips screws, PH2	<b>KL1210IS12PH2</b>

## VDE Tool case, 27-piece



### Characteristics

- Hard shell, red
- Equipped with 27 mainly VDE-tested tools to DIN EN 60900

Item	Dimension mm	Weight g	Part No.
VDE Tool case, 27-pce.	515 x 420 x 230	9800	<b>KL880B26IS</b>
Scope of supply			Part No. Page
VDE Power combination pliers, 180 mm		KL020180IS	504
VDE Water pump pliers, jaw width 50 mm		KL070250IS	507
VDE Side cutter 160 mm		KL040160IS	505
VDE long-nose pliers, straight, 205 mm		KL050205IS	506
VDE Wire stripper, 160 mm		KL060160IS	507
VDE Cable cutter 160 mm		KL010160IS	504
VDE Slotted screwdriver, 2.5 x 0.4 mm		KL1007525IS	508
VDE Slotted screwdriver, 3.5 x 0.6 mm		KL10010035IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm		KL10010040IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm		KL10012555IS	508
VDE Phillips screwdriver, PH1		KL110PH1IS	508
VDE Phillips screwdriver, PH2		KL110PH2IS	508
VDE Pozidriv screwdriver, PZ1		KL120PZ1IS	509
VDE Pozidriv screwdriver, PZ2		KL120PZ2IS	509
VDE Plus/Minus-Pozidriv screwdriver, Z1		KL130PM1IS	509
VDE Plus/Minus-Pozidriv screwdriver, Z2		KL130PM2IS	509
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V		KL19073IS	510
Cable knife, straight		KL640GK	519
Rubber cover/blanket, large		KL625A1000	517
Plastic clamp for rubber cover/blanket		KL628	517
Protective gloves, size 10		KL60510	518
Cotton gloves		KL605U	518
Tweezers		KL690130	520
Cleaning brush		KL698	520
Control cabinet spirit level, 200 mm		KL420200	535
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>		KL760180IS	507
Tool case red, empty		KL880L	526
VDE Electric power side cutter, 200 mm		KL044200IS	505

## Tool case red, empty



### Characteristics

- Hard shell, red

Item	Dimension mm	Weight g	Part No.
Tool case red, empty	515 x 420 x 230	4400	<b>KL880L</b>



# STANDARD – KLAUKE BASIC TOOLS, SETS AND ACCESSORIES

With Klauke sets, you always have your basic equipment to hand. Whether you are an electronics technician or precision engineer - the Klauke range includes all standard versions through to pliers for water pumps and fittings. Rely on Klauke quality from the outset - even just for quick, occasional use.



## ► Socket wrench set KL 361

We have compiled the standard set of socket wrenches for you and made everything shockproof by storing in a high-quality plastic case. In total, the set comprises 29 pieces in 1/4" sizes.

- 29 piece: 16-piece bit set, bit holder, adapter, 7-piece socket set, professional ratchet, various extensions, T-Smart grip

## ► The apprentice's case: KL 855 B22

The impact-resistant case made from ABS material contains everything an apprentice electrician needs, from standard tools such as cable knives and phase testers through to VDE safety tools.

Head into your apprenticeship well-prepared!

## ► The technician's basic equipment: KL 905 B15

The practical notebook bag holds everything you need on-site. The 15-piece set is securely stowed in the fold-out compartments.

- Technician's notebook bag made from highly durable nylon
- Tools are quickly located thanks to fold-out front pocket

- Reliably transported due to splash-proof base
- Twin fixed carrying handle
- Basic set of VDE screwdrivers
- Standard tools such as phase tester and cable knife



## Water pump pliers, jaw width 50 mm



### Characteristics

- Jaw width 50 mm
- Safe working due to clamp protection and safety joint
- Ratchet adjustment
- Optimum hold due to toothed grip area
- Plastic coated handles
- 2-component handle

Part No.	<b>KL070250G</b>
Item	Water pump pliers, jaw width 50 mm
Dimension mm	250
Weight g	355

## Water pump pliers



### Characteristics

- Jaw width up to 65 mm
- Safe working due to clamp protection and safety joint
- Push button adjustment for setting quickly and accurately
- Inverted box joint with wide guide surfaces
- Optimum hold due to toothed grip area
- High retaining force and load-bearing capacity due to inductively-hardened teeth
- Plastic coated handles
- 2-component handle

Part No.	<b>KL072180G</b>	<b>KL072250G</b>	<b>KL072300G</b>
Item	Water pump pliers, jaw width 35 mm	Water pump pliers, jaw width 50 mm	Water pump pliers, jaw width 65 mm
Dimension mm	180	250	300
Weight g	190	300	530

## Fitting pliers, jaw width 53 mm



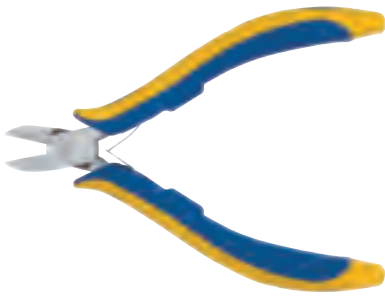
### Characteristics

- Parallel and moveable jaws for maximum force
- Large jaw opening adjustable from 0 - 53 mm
- Safe working due to clamp protection and safety joint
- Push button adjustment for setting quickly and accurately
- Box joint
- Plastic coated handles

Part No.	<b>KL078250G</b>
Item	Fitting pliers, jaw width 53 mm
Dimension mm	250
Weight g	375



## ESD Electronic side cutter



### Characteristics

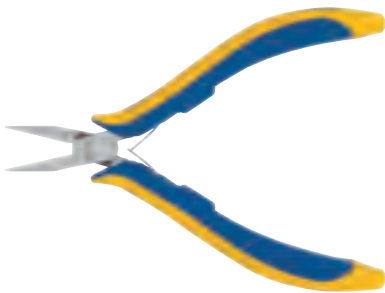
- Precision pliers for high precision work
- Double leaf spring with low friction
- High cutting force thanks to additional induction hardening
- Anti-static ergonomic non slip grips
- Surface resistance amounts to 1 to 100 MΩ

### Suitable for

- For soft wires to 1.2 mm

Item	Dimension mm	Weight g	Part No.
Electronic side cutter, with facet	115	62	<b>KL040115EL</b>
Electronic side cutter, without facet/surface flush cut	115	60	<b>KL040115ELW</b>

## ESD Electronic long-nose pliers



### Characteristics

- Smooth inside jaws, edges rounded
- Anti-static ergonomic non slip grips
- Surface resistance amounts to 1 to 100 MΩ
- Optimised for gripping fine strands of wires

Item	Dimension mm	Weight g	Part No.
Electronic long-nose pliers	115	64	<b>KL050115EL</b>

## Electronic side cutter



### Characteristics

- Cutter angled at 21°
- Backlash-free operation
- With opening spring
- 2-component handle

### Suitable for

- For soft wires to 1.3 mm dia.

Item	Dimension mm	Weight g	Part No.
Electronic side cutter, without wire trapping spring	128	64	<b>KL040128EL</b>
Electronic side cutter, with wire trapping spring	128	66	<b>KL040128ELH</b>

## Screwdriver with interchangeable bits



### Characteristics

- Compact, versatile, ergonomic

Item	Dimension mm	Weight g	Part No.
Screwdriver with interchangeable bits, 8-pce.	128	64	<b>KL180B8</b>
Scope of supply			
Slotted screwdriver bit, 1.0 x 5.5 mm			
Philips screwdriver bit, PH 1 & PH 2			
Pozidriv screwdriver bit, PZ 1 & PZ 2			
TORX® screwdriver bit, Torx 15, 20, 25			
Magnetic bit holder			



## Electronic assortment, 7-pce.



### Characteristics

- 2-component handle
- Blade replacement by replacement blade holder

Item	Weight g	Part No.
Electronic assortment, 7-pce.	161	<b>KL350</b>
Scope of supply	Part No.	Page
Blade 1.5 x 0.25 - 3.0 x 0.5 mm	KLE3501	
Blade 2.0 x 0.4 - 3.5 x 0.6 mm	KLE3502	
Blade 2.5 x 0.4 - 4.0 x 0.8 mm	KLE3503	
Blade PH 000 - PH 00	KLE3504	
Blade PH 0 - PH 1	KLE3505	
Blade PH 0 - PZ 1	KLE3506	
Tool holder 95 x 14 mm	KLE3507	

## Slotted screwdriver bit 1/4", 73 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126

Item	Dimension mm	Weight g	Number parts	Part No.
Slotted screwdriver bit 1/4", 73 mm	73 x 0.6 x 3.5	16	2	<b>KL2007335</b>
Slotted screwdriver bit 1/4", 73 mm	73 x 0.8 x 4.0	18	2	<b>KL2007340</b>
Slotted screwdriver bit 1/4", 73 mm	73 x 1.0 x 5.5	26	2	<b>KL2007355</b>
Slotted screwdriver bit 1/4", 73 mm	73 x 1.2 x 6.5	34	2	<b>KL2007365</b>

## Phillips screwdriver bit 1/4", 73 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126

Item	Dimension mm	Weight g	Number parts	Part No.
Phillips screwdriver bit 1/4", 73 mm PH1	73 x PH 1	22	2	<b>KL21073PH1</b>
Phillips screwdriver bit 1/4", 73 mm PH2	73 x PH 2	30	2	<b>KL21073PH2</b>

## Pozidriv screwdriver bit 1/4", 73 mm



### Characteristics

- Shank 1/4" (6.3), DIN 3126

Item	Dimension mm	Weight g	Number parts	Part No.
Pozidriv screwdriver bit 1/4", 73 mm PZ1	73 x PZ 1	22	2	<b>KL22073PZ1</b>
Pozidriv screwdriver bit 1/4", 73 mm PZ2	73 x PZ 2	30	2	<b>KL22073PZ2</b>

## Plus/Minus-Pozidriv screwdriver bit, 1/4", 73 mm

### Characteristics

- Shank 1/4" (6.3), DIN 3126



Item	Dimension mm	Weight g	Number parts	Part No.
Plus/Minus-Pozidriv screwdriver bit, 1/4", 73 mm	73 x Z 1	20	2	<b>KL23073PM1</b>
Plus/Minus-Pozidriv screwdriver bit, 1/4", 73 mm	73 x Z 2	30	2	<b>KL23073PM2</b>

## TORX® screwdriver bit, 1/4", 73 mm

### Characteristics

- Shank 1/4" (6.3), DIN 3126



Item	Dimension mm	Weight g	Number parts	Part No.
TORX® screwdriver bit, 1/4", 73 mm TX10	73 x TX 10	22	2	<b>KL25073TX10</b>
TORX® screwdriver bit, 1/4", 73 mm TX15	73 x TX 15	22	2	<b>KL25073TX15</b>
TORX® screwdriver bit, 1/4", 73 mm TX20	73 x TX 20	25	2	<b>KL25073TX20</b>
TORX® screwdriver bit, 1/4", 73 mm TX25	73 x TX 25	25	2	<b>KL25073TX25</b>
TORX® screwdriver bit, 1/4", 73 mm TX27	73 x TX 27	25	2	<b>KL25073TX27</b>
TORX® Screwdriver bit, 1/4", 73 mm TX30	73 x TX 30	30	2	<b>KL25073TX30</b>
TORX® Screwdriver bit, 1/4", 73 mm TX40	73 x TX 40	40	2	<b>KL25073TX40</b>

## Magnetic holder for screwdriver bits, 1/4", 58 mm

### Characteristics

- Shank 1/4" (6.3), DIN 3126
- Strong magnet



Item	Dimension mm	Weight g	Part No.
Magnetic holder for screwdriver bits, 1/4", 58 mm	58	32	<b>KL290</b>

## Bit holder with quick-change chuck E6.3 1/4"

### Characteristics

- Shank 1/4" (6.3), DIN 3126
- With quick-change chuck



Item	Dimension mm	Weight g	Part No.
Bit holder with quick-change chuck E6.3 1/4"	52	30	<b>KL291</b>

## Adapter, 1/4", 50 mm



▶ Shank E 6.3 and 1/4" socket wrench

### Characteristics

- Shank 1/4" (6.3)

### Suitable for

- Drive for 1/4" socket wrenches

Item	Dimension mm	Weight g	Part No.
Adapter, 1/4", 50 mm	50	15	<b>KL295</b>

## Adapter, 3/8", 50 mm



### Characteristics

- Shank 3/8" (10), DIN 3126

Item	Dimension mm	Weight g	Part No.
Adapter, 3/8", 50 mm	50	22	<b>KL296</b>

## Pliers set, 3-piece



Item	Weight g	Part No.
Pliers set, 3-piece	1000	<b>KL315</b>
Scope of supply		Part No.
Fitting pliers, jaw width 53 mm		KL078250G
Water pump pliers, jaw width 35 mm		KL072180G
Water pump pliers, jaw width 50 mm		KL072250G

## Socket head bit set 1/4", 29-pce.



Item	Weight g	Number parts	Part No.
Socket head bit set 1/4", 29-pce.	1130	29	<b>KL361</b>
Scope of supply		Part No.	Page
16-pce. Bit set C6.3 1/4"		KLE3601	
Bit holder with quick-change chuck E6.3 1/4"		KL291	531
7-pce. Socket set AF5 - AF13 1/4"		KLE3602	
Adapter C6.3 (25 mm) 1/4"		KLE3603	
Extension E6.3 (150 mm) 1/4"		KLE3604	
Extension (75 mm) 1/4"		KLE3605	
Professional ratchet 1/4"			
T-Smart handle 105 x 39 mm 1/4"		KLE3607	

### Allen key set, 7-pce.



#### Characteristics

- In practical holder

Item	Dimension mm	Weight g	Number parts	Part No.
Allen key set, 7-pce.	SW 2 - 8	171	7	<b>KL370</b>

### Ball-point allen key set, 9-pce.



#### Characteristics

- In practical plastic holder

Item	Dimension mm	Weight g	Number parts	Part No.
Ball-point allen key set, 9-pce.	SW 1.5 - 10	273	9	<b>KL375</b>

### Torque-wrench set, 0.6 - 1.5 Nm



#### Characteristics

- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.
Torque-wrench set, 0.6 - 1.5 Nm	1048	14	<b>KL38715</b>
Scope of supply			Part No. Page
Nm-slotted blade 3.0 x 0.5 x 170 mm			KLE387158
Nm-slotted blade 3.5 x 0.6 x 170 mm			KLE387159
Nm-Phillips blade PH 0 x 170 mm			KLE3871510
Nm blade PZ 0 x 170 mm			KLE3871511
Nm-TORX® blade TX 6 x 170 mm			KLE387151
Nm-TORX® blade TX 7 x 170 mm			KLE387152
Nm-TORX® blade TX 8 x 170 mm			KLE387153
Nm-TORX® blade TX IP 7 x 170 mm			KLE387155
Nm-TORX® blade TX IP 8 x 170 mm			KLE387156
Nm-TORX® blade TX IP 9 x 170 mm			KLE387157
Nm blade Z1 x 170 mm			KLE3883014
Nm blade magnetic 170 mm			KLE3871512
Nm handle 0.6 - 1.5 Nm			KLE3871513
Adjusting spanner			KLE3871514

## Torque-wrench set, 1.5 - 3.0 Nm



### Characteristics

- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.
Torque-wrench set, 1.5 - 3.0 Nm, 14 pieces	1066	14	<b>KL38830</b>
Scope of supply			Part No. Page
Nm-slotted blade 4.0 x 0.8 x 170 mm			KLE388301
Nm-Phillips blade PH 1 x 170 mm			KLE388302
Nm-Phillips blade PH 2 x 170 mm			KLE388303
Nm blade PZ 1 x 170 mm			KLE388304
Nm blade PZ 2 x 170 mm			KLE388305
Nm-TORX® blade TX 10 x 170 mm			KLE388307
Nm-TORX® blade TX 15 x 170 mm			KLE388308
Nm-TORX® blade TX IP 10 x 170 mm			KLE3883010
Nm-TORX® blade TX IP 15 x 170 mm			KLE3883011
Nm blade Z1 x 170 mm			KLE3883014
Nm blade Z2 x 170 mm			KLE3883015
Nm blade magnetic 170 mm			KLE3883012
Nm handle 1.5 - 3.0 Nm			KLE3883013
Adjusting spanner			KLE3871514

## Torque-wrench set, 3.0 - 5.4 Nm



### Characteristics

- Easy torque adjustment using an Allen key
- Precise release when reaching the set torque

Item	Weight g	Number parts	Part No.
Torque-wrench set, 3.0 - 5.4 Nm	1066	14	<b>KL38954</b>
Scope of supply			Part No. Page
Nm-slotted blade 4.0 x 0.8 x 170 mm			KLE388301
Nm-Phillips blade PH 2 x 170 mm			KLE388303
Nm-Phillips blade PH 1 x 170 mm			KLE388302
Nm blade PZ 1 x 170 mm			KLE388304
Nm blade PZ 2 x 170 mm			KLE388305
Nm-TORX® blade TX 15 x 170 mm			KLE388308
Nm-TORX® blade TX IP 10 x 170 mm			KLE3883010
Nm-TORX® blade TX IP 15 x 170 mm			KLE3883011
Nm blade Z2 x 170 mm			KLE3883015
Nm blade magnetic 170 mm			KLE3883012
Nm handle 3.0 - 5.4 Nm			KLE3895413
Adjusting spanner			KLE3871514

### Bit set, 6-piece, 1/4", 73 mm



#### Characteristics

- Shank 1/4" (6.3), DIN 3126
- KL330: 3.0 x 0.5 mm / 3.5 x 0.6 mm / 4.0 x 0.8 mm / 5.5 x 1.0 mm / PH 1 / PH 2
- KL331: PH 1 / PH 2 / PH 3 / PZ1 / PZ2 / PZ3
- KL335: TX10 / TX15 / TX20 / TX25 / TX30 / TX40

Item	Blade length mm	Weight g	Number parts	Part No.
Bit assortment, 1/4", 73 mm	73	120	6	<b>KL330</b>
Bit assortment, 1/4", 73 mm	73	120	6	<b>KL331</b>
TORX® bit assortment, 1/4", 73 mm	73	120	6	<b>KL335</b>

### Bit box Swift, 7-piece, 1/4", 25 mm



#### Characteristics

- Shank 1/4" (6.3), DIN 3126
- In practical holder
- Incl. magnetic holder
- KL340: 1.0 x 5.5 mm / 1.2 x 6.5 mm / PZ 1 / PZ 2 / PH 1 / PH 2

Item	Blade length mm	Weight g	Number parts	Part No.
Bit box Swift, 1/4", 25 mm	25	75	7	<b>KL340</b>
TORX® bit box swift, 1/4", 25 mm	25	75	7	<b>KL345</b>

### Combination spanner set, 12-pce.



#### Characteristics

- Material: Chrome vanadium
- Surface: chromed

Item	Dimension mm	Weight g	Part No.
Combination spanner set, 12-pce.	SW 8 - 22	1055	<b>KL365</b>

### Control cabinet spirit level, 200 mm



#### Characteristics

- With horizontal, vertical and 45° spirit level

Item	Dimension mm	Weight g	Part No.
Control cabinet spirit level, 200 mm	200x42x17	65	<b>KL420200</b>



## Alu spirit level

### Characteristics

- With horizontal and vertical spirit level



Item	Dimension mm	Weight g	Part No.
Alu spirit level, 400 mm	400 x 40 x 15	210	<b>KL425400</b>
Alu spirit level, 600 mm	600 x 40 x 15	305	<b>KL425600</b>

## Wooden folding rule, 2 m

### Characteristics

- White/yellow
- No. of links 10



Item	Weight g	Part No.
Wooden folding rule, 2 m	126	<b>KL402</b>

## Measuring tape, 3 m

### Characteristics

- With 3 functions: Length, inside dimension and circles



Item	Weight g	Part No.
Measuring tape, 3 m	124	<b>KL403</b>

## Carpenter's pencil

### Characteristics

- Oval shape
- Pointed



Item	Weight g	Part No.
Carpenter's pencil	10	<b>KL449</b>

## Marking pen

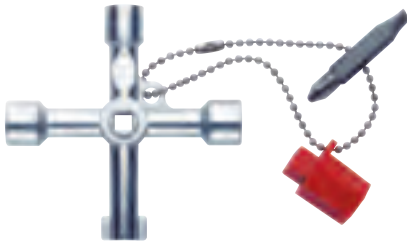
### Characteristics

- Multimark permanent marker, black
- Fine tip 0.6 mm



Item	Weight g	Part No.
Marking pen	10	<b>KL440F</b>

## Control cabinet key



### Characteristics

- With chain, adapter and interchangeable bit 1/4"
- Inner square 5, 6 and 7-8 mm
- Triangular 9 mm
- Double pin keys 3 - 5 mm
- Bit PH2 and slot 1.2 x 0.7 mm
- Radiator valve key closing (5 mm square) in the centre slot

Item	Weight g	Part No.
Control cabinet key	75	<b>KL500</b>

## Universal cabinet key, subkey Electro

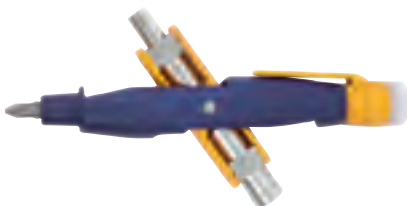


### Characteristics

- 30% lighter and simpler opening mechanism
- Inner square 5, 6 and 7-8 mm
- Triangular 9 mm
- Double pin keys 3 - 5 mm
- Including 1/4" bit mounting and 2 double bits
- Radiator valve key closing (5 mm square) on the pin head
- Bit slot 1.2 x 7 mm, PH2

Item	Dimension mm	Weight g	Part No.
Universal cabinet key, subkey Electro	145	120	<b>KL510</b>

## Universal cabinet key, SuBMaVo



### Characteristics

- Incl. voltage field sensor to safely determine alternating current at e.g. cable connections, sockets, lamps
- Integrated magnetic field sensor for the contactless determination of magnetic fields or permanent magnets
- Twin rotating mechanism for 4 different control cabinet closures
- Square drive 6 and 7 - 8 mm
- Triangular 9 mm
- Double pin keys 3 - 5 mm
- Bit slot 1.2 x 7 mm, PH2

Item	Weight g	Part No.
Universal cabinet key, SuBMaVo	105	<b>KL520</b>





## Engineer's hammer



### Characteristics

- Steel-forged head
- Ground finish
- With protective nylon shroud

Item	Dimension mm	Weight g	Part No.
Engineer's hammer, 300 g	370	300	<b>KL580300</b>
Engineer's hammer, 500 g	610	500	<b>KL580500</b>

## Sledge hammer



### Characteristics

- Steel-forged head
- Ground finish
- With protective nylon shroud

Item	Dimension mm	Weight g	Part No.
Club hammer, 1000 g	1150	1000	<b>KL5821000</b>
Club hammer, 1250 g	1400	1250	<b>KL5821250</b>

## Jointing chisel



### Characteristics

- Chrome vanadium steel
- Safety head, annealed

Item	Dimension mm	Weight g	Part No.
Jointing chisel	230 x 26 x 7	250	<b>KL584230</b>

## Electricians chisel



### Characteristics

- Chrome vanadium steel
- Safety head, annealed

Item	Dimension mm	Weight g	Part No.
Electrician's chisel, 200 mm	200	90	<b>KL585200</b>
Electrician's chisel, 250 mm	250	120	<b>KL585250</b>

## Safety handle for jointing chisel



### Suitable for

- Jointing chisel, part no. KL584230

Item	Weight g	Part No.
Safety handle for jointing chisel	110	<b>KL586</b>

## Cable knife



### Characteristics

- Hinged, with plastic handle

Item	Dimension mm	Weight g	Part No.
Cable knife	80	115	<b>KL540</b>

## Mini saw



### Characteristics

- With fixed wooden handle

Item	Dimension mm	Weight g	Part No.
Mini saw	290	95	<b>KL559</b>
Metal saw blades, 12-piece	150	2	<b>KL550ES</b>

## Universal saw



### Characteristics

- With fibreglass reinforced plastic handle

Item	Dimension mm	Weight g	Part No.
Universal saw	250	170	<b>KL550</b>
Metal saw blades, 12-piece	150	2	<b>KL550ES</b>

## Combination scissors



### Characteristics

- Serrated cutting edges
- With safety lock
- Cuts e.g. round and flat material from copper, aluminium, plastic, paper, cardboard, leather

Item	Dimension mm	Weight g	Part No.
Combination scissors	190	100	<b>KL545</b>

## Universal knife



### Characteristics

- With adjustable and replaceable blades

Item	Dimension mm	Weight g	Part No.
Universal knife		305	<b>KL542</b>
Replacement blade for universal knife	60 x 19 x 0.5	8	<b>KL542ES</b>

## Cutter knife



### Characteristics

- Knife with knock-off blades, all 9 mm

Item	Dimension mm	Weight g	Part No.
Cutter knife	9	45	<b>KL544</b>
Replacement blade for cutter knife	9	5	<b>KL544ES</b>

## Safety glasses uvex i-vo in microfibre bag



### Characteristics

- Duo component technology with soft components for the sensitive zones (nose, forehead, ears) giving optimum and long-term wearing comfort
- Individual bar length adjustment
- Individual incline setting
- Clear lens for permanent anti-fog inside, extremely scratch-resistant outside
- Sun protection lens extremely scratch-resistant both sides
- Easy and quick replacement of the sunglasses' lens
- 100 % UV protection
- Elegant microfibre pouch, also suitable for cleaning the glasses

Item	Weight g	Part No.
Safety glasses uvex i-vo in microfibre bag	33	<b>KL604</b>
Sun protection lens for safety glasses KL604	23	<b>KL604S</b>

## L-BOXX with basic equipment for electricians, 18-piece



### Characteristics

- L-BOXX from shock and impact resistant ABS plastic, 100 kg capacity
- Stackable L-BOXXes due to Easy-Click system

### Suitable for

- For integration in TÜV-approved in-vehicle equipment systems

Item	Dimension mm	Part No.
L-BOXX with basic equipment for electricians, 18-piece	442 x 357 x 151	<b>LBOXXKLB18</b>
Scope of supply	Part No.	Page
L-BOXX with front handle (W/D/H: 442 x 357 x 151 mm)	LBOXX136LFG	
VDE long-nose pliers, straight, 205 mm	KL050205IS	506
VDE Power combination pliers, 180 mm	KL020180IS	504
VDE Side cutter 160 mm	KL040160IS	505
VDE Cable cutter 160 mm	KL010160IS	504
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>	KL760180IS	507
VDE Water pump pliers, jaw width 50 mm	KL070250IS	507
Measuring tape, 3 m	KL403	536
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555IS	508
VDE Plus/Minus-Pozidriv screwdriver, Z1	KL130PM1IS	509
VDE Plus/Minus-Pozidriv screwdriver, Z2	KL130PM2IS	509
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS	510
GT-85NE Bipolar voltage tester with LCD display	52049407	579
Hexagonal angle screwdriver set, 7-pce.	KL370	533
Cable knife with hooked blade	KL745HK	553
DM-200A Digital multimeter	52047801V2	582

## Apprentice case



► Tool case can be personalised with own brand logo - <http://www.klauke.com/personalization>

### Characteristics

- Case shell from impact-resistant ABS
- Robust aluminium frame with abutting edges
- Two lockable clips

Item	Dimension mm	Weight kg	Part No.
Apprentice case	500 x 470 x 210	6.0	<b>KL855B22</b>
Scope of supply			Part No. Page
VDE Power combination pliers, 180 mm			KL020180IS 504
VDE Side cutter 160 mm			KL040160IS 505
VDE long-nose pliers, straight, 205 mm			KL050205IS 506
VDE Slotted screwdriver, 3.0 x 0.5 mm			KL10010030IS 508
VDE Slotted screwdriver, 4.0 x 0.8 mm			KL10010040IS 508
VDE Slotted screwdriver, 5.5 x 1.0 mm			KL10012555IS 508
VDE Pozidriv screwdriver, PZ1			KL120PZ1IS 509
VDE Pozidriv screwdriver, PZ2			KL120PZ2IS 509
VDE Plus/Minus-Pozidriv screwdriver, Z1			KL130PM1IS 509
VDE Plus/Minus-Pozidriv screwdriver, Z2			KL130PM2IS 509
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V			KL19073IS 510
Wooden folding rule, 2 m			KL402 536
Control cabinet spirit level, 200 mm			KL420200 535
Carpenter's pencil			KL449 536
Universal saw			KL550 539
Engineer's hammer, 300 g			KL580300 538
Cable knife with hooked blade			KL745HK 553
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>			KL760180IS 507
Water brush			
Plasterer's bowl 125 mm			
Painter's spatula 40 mm			

## Professional tool case



► Tool case can be personalised with own brand logo - <http://www.klauke.com/personalization>

### Characteristics

- Case shell from impact-resistant ABS
- Robust aluminium frame with abutting edges
- Two lockable clips

Item	Dimension mm	Weight kg	Part No.
Professional tool case with 19 tools	520 x 440 x 230	9.15	<b>KL865B19</b>
Scope of supply			Part No. Page
VDE Power combination pliers, 180 mm			KL020180IS 504
VDE Side cutter 160 mm			KL040160IS 505
VDE long-nose pliers, straight, 205 mm			KL050205IS 506
Water pump pliers, jaw width 50 mm			KL072250G 528
VDE Slotted screwdriver, 3.0 x 0.5 mm			KL10010030IS 508
VDE Slotted screwdriver, 4.0 x 0.8 mm			KL10010040IS 508
VDE Slotted screwdriver, 5.5 x 1.0 mm			KL10012555IS 508
VDE Pozidriv screwdriver, PZ1			KL120PZ1IS 509
VDE Pozidriv screwdriver, PZ2			KL120PZ2IS 509
VDE Plus/Minus-Pozidriv screwdriver, Z1			KL130PM1IS 509
VDE Plus/Minus-Pozidriv screwdriver, Z2			KL130PM2IS 509
Wooden folding rule, 2 m			KL402 536
Carpenter's pencil			KL449 536
Control cabinet key			KL500 537
Cable knife with blade protection, 1000 V			KL645GSK 519
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>			KL760180IS 507
GT-55NE Bipolar voltage tester with LED display			52049408 579
Allen key set			533
Open-end wrench set			535

## Professional roller trolley, 88-piece



### Characteristics

- With 4-section telescopic handle, up to 1050 mm
- Smooth-running thanks to large rubber casters
- Case shell manufactured from non-breakable ABS
- Loads up to 40 kg

Item	Dimension mm	Weight g	Part No.
Professional roller trolley, 88-piece	470 x 210 x 355	15500	<b>KL890TB88</b>
Scope of supply		Part No.	Page
Professional roller trolley, empty		KL890TL	546
VDE Power combination pliers, 180 mm		KL020180IS	504
VDE long-nose pliers, straight, 205 mm		KL050205IS	506
VDE Electric power side cutter, 200 mm		KL044200IS	505
VDE Wire stripper, 160 mm		KL060160IS	507
VDE Slotted screwdriver, 2.5 x 0.4 mm		KL1007525IS	508
VDE Slotted screwdriver, 3.5 x 0.6 mm		KL10010035IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm		KL10010040IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm		KL10012555IS	508
VDE Phillips screwdriver, PH1		KL110PH1IS	508
VDE Phillips screwdriver, PH2		KL110PH2IS	508
VDE Pozidriv screwdriver, PZ1		KL120PZ1IS	509
VDE Pozidriv screwdriver, PZ2		KL120PZ2IS	509
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V		KL19073IS	510
VDE Plus/Minus-Pozidriv screwdriver, Z1		KL130PM1IS	509
VDE Plus/Minus-Pozidriv screwdriver, Z2		KL130PM2IS	509
VDE Cable cutter 210 mm		KL010210IS	504
Bit assortment, 1/4", 73 mm		KL330	535
Wire stripper for flexible and solid conductors		KL760180	550
Water pump pliers, jaw width 50 mm		KL070250G	528
LED flashlight		52041108	
CM-660 Digital clamp meter		52066379	590
Combination spanner set, 12-pce.		KL365	539
Socket head bit set 1/4", 29-pce.		KL361	532
Universal cabinet key, subkey Electro		KL510	537
Universal saw		KL550	539
Crimping tool with interchangeable dies		K507	243
Wooden folding rule, 2 m		KL402	536
Carpenter's pencil		KL449	536
Cable knife with hooked blade		KL745HK	553
Round cable stripper 8 - 13 mm <sup>2</sup>		KL710	553
Allen key set, 7-pce.		KL370	533
Engineer's hammer, 300 g		KL580300	538
Safety glasses uvex i-vo in microfibre bag		KL604	536
Marking pen		KL440F	536
GT-85NE Bipolar voltage tester with LCD display		52049407	579
Kwik Stepper™ step bit with ROTASTOP® shaft ISO 12 - 40 mm		50069888	467
NETcat® Micro NC-100 + 200EP		NC100EP	
NETcat® Micro NC-100		52024541	
TC-20 Nylon carrying case for measuring instruments with carrying strap		50075357	587

## Engineers professional case, 15-piece



► Engineers basic equipment, mainly with VDE tools

### Characteristics

- Technicians Notebook tool bag
- Material: hard-wearing nylon
- 90° folding-out front pocket
- High-quality zipper
- Spray-water protected bottom
- Each side pocket has a zipper
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Twin fixed carrying handle
- Insert for visitor cards

Item	Part No.	
Engineers professional case, 15-piece	<b>KL905B15</b>	
Scope of supply	Part No.	Page
Technicians professional case, empty	KL905L	547
VDE Phillips screwdriver, PH1	KL110PH1IS	508
VDE Phillips screwdriver, PH2	KL110PH2IS	508
VDE Slotted screwdriver, 2.5 x 0.4 mm	KL1007525IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm	KL10010040IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm	KL10012555IS	508
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V	KL19073IS	510
VDE Plus/Minus-Pozidriv screwdriver, Z1	KL130PM1IS	509
VDE Plus/Minus-Pozidriv screwdriver, Z2	KL130PM2IS	509
Cable knife with hooked blade	KL745HK	553
VDE long-nose pliers, straight, 205 mm	KL050205IS	506
VDE Electric power side cutter, 200 mm	KL044200IS	505
Round cable stripper 8 - 13mm <sup>2</sup>	KL710	553
VDE Power combination pliers, 165 mm	KL020165IS	504
Measuring tape, 3 m	KL403	536



## OEM bag, 22-piece



### Characteristics

- Equipped with 22 mainly VDE-tested tools
- Robust version with plastic slide rails and upper metal rails with sponge rubber handle
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Outdoors: 1 large lockable label pocket, 9 pockets, 2 Velcro® for fastening spirit level etc. Indoor connections: 3 compartments, 14 straps

Item	Dimension mm	Weight g	Part No.
OEM bag, 22-piece	350 x 200 x 200	2600	<b>KL920B22</b>
Scope of supply			Part No.
			Page
VDE Power combination pliers, 180 mm		KL020180IS	504
VDE Side cutter 160 mm		KL040160IS	505
VDE long-nose pliers, straight, 205 mm		KL050205IS	506
VDE Slotted screwdriver, 3.0 x 0.5 mm		KL10010030IS	508
VDE Slotted screwdriver, 4.0 x 0.8 mm		KL10010040IS	508
VDE Slotted screwdriver, 5.5 x 1.0 mm		KL10012555IS	508
VDE Pozidriv screwdriver, PZ1		KL120PZ1IS	509
VDE Pozidriv screwdriver, PZ2		KL120PZ2IS	509
VDE-Plus/Minus-Pozidriv screwdriver Z1		KL130PM1IS	508
VDE Plus/Minus-Pozidriv screwdriver Z2		KL130PM2IS	508
Phase tester with heavy duty handle, one-pin, VDE 0680 150 V - 250 V		KL19073IS	509
Cable knife with hooked blade		KL745HK	548
Automatic VDE wire stripper 0.2 - 6 mm <sup>2</sup>		KL760180IS	507
Wooden folding rule, 2 m		KL402	536
Control cabinet spirit level, 200 mm		KL420200	535
Carpenter's pencil		KL449	536
Universal saw		KL550	539
Engineer's hammer, 300 g		KL580300	538
Electrician's chisel, 250 mm		KL585250	538

## Professional roller trolley, empty



### Characteristics

- With 4-section telescopic handle, up to 1050 mm
- Document compartment
- Double aluminium frame
- Smooth-running thanks to large rubber casters
- Case shell manufactured from non-breakable ABS
- 2 compartments for business cards
- Two straps for writing instruments

Item	Dimension mm	Weight g	Part No.
Professional roller trolley, empty	470 x 210 x 355	6600	<b>KL890TL</b>

### Professional installers case



#### Characteristics

- Robust version with plastic slide rails and upper metal rails with sponge rubber handle
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Outdoors: 1 large lockable label pocket, 9 pockets, 2 Velcro® for fastening spirit level etc. Indoor connections: 3 compartments, 14 straps

Item	Dimension mm	Weight g	Part No.
Profi-installer's pocket	350 x 200 x 200	2600	<b>KL920L</b>

### Technicians professional case, empty



#### Characteristics

- Material: highly durable nylon, splash-proof base
- 90° folding front pocket, each side pocket has a zipper
- Twin fixed carrying handle
- Adjustable carrying belt with quick-release fastener and shoulder pad
- Protected notebook compartment
- Insert for visitor cards
- High-quality zipper

Item	Dimension mm	Weight g	Part No.
Technicians professional case, empty	330 x 440 x 200	2600	<b>KL905L</b>

### Tool case, empty



#### Characteristics

- Robust aluminium frame with abutting edges
- With lockable clips

Item	Dimension mm	Weight g	Part No.
Tool case Economy	490 x 365 x 188	4,5	<b>KL855L</b>
Tool case, empty	508 x 362 x 214	5,2	<b>KL865L</b>

### Tool wallet from nylon, empty



#### Characteristics

- Material: Polytex
- Accepts up to 11 tools

Item	Dimension mm	Weight g	Part No.
Tool wallet from nylon, empty	200 x 200 x 50	100	<b>KL910L</b>

# PREPARATION WITH PRECISION - STRIPPING TOOLS

In the world of professionals, every assignment counts. Better if you can rely on your tool. Stripping tools from Klauke remove insulation and cable sheathing quickly and precisely. All strands remain intact.



## ► For very precise use

- Fast and precise removal of insulation and cable sheathing
- Automatic cross-section adjustment
- Reduced effort due to optimum power transmission
- Reduced wear
- Including replacement blade

Special sheath and insulation materials call for special stripping tools! Innovative blade geometries guarantee a clean cut edge - with hard insulation such as PTFE (Teflon) through to soft/tough materials such as silicon!



## Automatic wire stripper, 0.02 - 10 mm<sup>2</sup>



### Characteristics

- Self-setting cutting and stripping tool for commercially available flexible cables 0.02 - 10 mm<sup>2</sup> and solid conductors to 1.5 mm<sup>2</sup>
- Easily replaceable blade system
- Long service life of pliers due to precise adjustment for stripping thin insulation without damaging the conductor
- Integrated side cutter

Item	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire-stripping tool K43/2	0.02 - 10	140	<b>K432</b>
Automatic wire stripper K43/2-90, angled at 90°	0.02 - 10	140	<b>K43290</b>
Accessories			Part No.
Interchangeable cassette, black, for wire-stripping tool K432 0.02 - 10 mm <sup>2</sup> flexible conductors and to 1.5 mm <sup>2</sup> solid conductors			<b>K432E</b>
Interchangeable cassette, blue, for wire-stripping tool K432 for PTFE insulated conductors 0.1 - 4 mm <sup>2</sup>			<b>K432E2</b>
Interchangeable cassette, red, for wire-stripping tool K432 / 4 - 16 mm <sup>2</sup>			<b>K432E3</b>

## Automatic wire stripper, 0.02 - 10 mm<sup>2</sup>



▶ Particularly suitable for application-specific cables in the plant and machinery construction, wind energy, robotics, eMobility, marine, shipbuilding, railway and rail transport sectors

### Characteristics

- Self-adjusting cutting and stripping tool for application-specific solid and flexible cables
- Ideal, lightweight and ergonomic tool with a long service life
- Automatic opening of the clamping jaws after the stripping process for added safety
- No splicing of single conductors - conductor enters the cable end-sleeve with greater ease
- Integrated professional, readily accessible cable cutter - accelerates working processes
- Adjustable stop with metric and imperial display for precise stripping length

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Automatic wire stripper, 4 - 16 mm <sup>2</sup>	190	4 -16	140	<b>K432U</b>
Accessories			Part No.	Page
Wechselkassette rot für massive u. flexible Kabel 4 - 16 mm <sup>2</sup>			K432E3	

## Automatic wire stripper, 0.1 - 4 mm<sup>2</sup>



▶ Particularly suitable for application-specific cables in the plant and machinery construction, wind energy, robotics, eMobility, marine, shipbuilding, railway and rail transport sectors

### Characteristics

- Self-adjusting cutting and stripping tool for application-specific solid and flexible cables
- Ideal, lightweight and ergonomic tool with a long service life
- Automatic opening of the clamping jaws after the stripping process for added safety
- No splicing of single conductors - conductor enters the cable end-sleeve with greater ease
- Integrated professional, readily accessible cable cutter - accelerates working processes
- Adjustable stop with metric and imperial display for precise stripping length

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Automatic wire stripper, 0.1 - 4 mm <sup>2</sup>	190	0.08 - 4	140	<b>K432V</b>
Accessories			Part No.	Page
Detachable magazine, blue for solid and flexible cables from 0.1 - 4 mm <sup>2</sup>			K432E2	

## Wire stripper with stepless stripping range 0.03 - 16 mm<sup>2</sup>



- ▶ First wire stripper with stepless stripping range 0.03 - 16 mm<sup>2</sup>
- ▶ Perfect for damage-free stripping of solid and flexible conductors with PVC

### Characteristics

- Effortless working thanks to ergonomic styling
- Safe working thanks to integrated clamp protection
- Durable tool with easily replaceable blades
- Integrated side cutter up to max. 9 mm dia.
- High stability due to glass fiber reinforced polyamide
- Accurate and consistent stripping length thanks to adjustable stop

Item	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper with stepless stripping range 0.03 - 16 mm <sup>2</sup>	0.03 - 16	140	<b>K433</b>
Accessories		Part No.	Page
Detachable magazine		K433E	

## Wire stripper, 0.2 - 6 mm<sup>2</sup>



### Characteristics

- Adjustable length stop from 5 - 12 mm
- Integrated easy to reach side cutter up to max. 2 mm dia.

### Suitable for

- For all standard flexible and solid conductors from 0.2 - 6 mm<sup>2</sup>

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper for flexible and solid conductors	180	0.2 - 6	130	<b>KL760180</b>

## Wire stripper for round and flat cables



### Characteristics

- Fine adjustment (5-way) on various cable types and cable diameters
- Optical length dimension 8 - 24 mm (5/16 - 1 inch)
- Integrated side cutter up to max. 3 mm dia.

### Suitable for

- Flat cable: Baring and stripping of 2-core PVC-insulated flat cables from 0.75 - 1.5 mm<sup>2</sup>
- Round cable: Baring and stripping flexible cables in the range 0.5 - 16 mm<sup>2</sup> (20-6 AWG), solid conductors 0.5 - 10 mm<sup>2</sup> (20-8 AWG)

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Wire stripper for round and flat cables	180	0.5 - 16	205	<b>KL765FR215</b>

## Automatic wire stripper for round cables in the solar technology sector



### Characteristics

- Fine adjustment (5-way) on various cable types and cable diameters
- Integrated side cutter up to max. 3 mm dia.
- Optical length dimension 8 - 24 mm (5/16 - 1 inch)

### Suitable for

- Baring and stripping of all standard, flexible cables from 1.5 mm<sup>2</sup> - 6.0 mm<sup>2</sup> (15-9 AWG) in the solar technology sector.

Item	Dimension mm	Stripping range mm <sup>2</sup>	Weight g	Part No.
Automatic wire-stripping tool for round cables in the solar technology sector	180	1.5 - 6	205	<b>KL765PV</b>

## K 400 Professional wire stripping tool 4.5 - 40 mm



### Characteristics

- Max. cutting depth of the knife: 4.5 mm
- Max. baring diameter: 21 mm (small hook)
- Max. baring diameter: 40 mm (large hook)
- Stop hook is replaceable

Item	Dimension mm	Weight g	Part No.
K 400 Professional wire stripping tool 4.5 - 40 mm	200 x 93 x 33	120	<b>K400</b>

Accessories	Part No.	Page
K 400E Replacement blade for wire stripping tool K 400	<b>K400E</b>	

## Cable knife without blade



### Characteristics

- Precise, fast and safe stripping of all standard round cables
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Part No.
Cable knife, without blade 4 - 16 mm dia.	4 - 16	70	<b>KL740416</b>
Cable knife, without blade 8 - 28 mm dia.	8 - 28	70	<b>KL740828</b>

Accessories	Part No.	Page
Replacement blade for electricians knife with hooked blade	<b>KL749ES</b>	

## Cable knife with straight blade



### Characteristics

- Precise, fast and safe stripping of all standard round cables
- Including protective cover for the blade
- Removable reducing adapter made from extremely abrasion-resistant plastic (POM)
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Part No.
Cable knife with straight blade	4 - 28	80	<b>KL745GK</b>

Accessories	Part No.	Page
Replacement blade for electricians knife with hooked blade	<b>KL749ES</b>	



## Cable knife with hooked blade



### Characteristics

- Precise, fast and safe stripping of all standard round cables
- Including protective cover for the blade
- Removable reducing adapter made from extremely abrasion-resistant plastic (POM)
- No damage to inner conductor due to stepless adjustment of cutting depth
- Round and long cut due to self-rotating knife

Item	Dimension mm	Weight g	Part No.
Cable knife with hooked blade	4 - 28	80	<b>KL745HK</b>
Accessories		Part No.	Page
Replacement blade for electricians knife with hooked blade		<b>KL749ES</b>	

## Round cable stripper 8 - 13mm<sup>2</sup>



### Characteristics

- Simple stripping even in hard-to-reach areas, e.g. ceiling and walls, junction and distribution boxes, switch cabinets etc.
- Strips round and damp proof installation cables from 8 - 13 mm dia. (e.g. NYM 3 x 1.5 mm<sup>2</sup> to 5 x 2.5 mm<sup>2</sup>)
- No need to adjust the cutting depth

Item	Dimension mm	Weight g	Part No.
Round cable stripper 8 - 13mm <sup>2</sup>	8 - 13	43	<b>KL710</b>

## Multi-stripper



### Characteristics

- Universal stripping tool with the following functions: Baring, round cut, long cut, stripping, cutting

Item	Dimension mm	Weight g	Part No.
Multi-stripper	8 - 13	77	<b>KL730</b>

## Photovoltaic stripper



### Characteristics

- Replaceable blade system
- Protected blade
- Simple handling
- Fixed stripping from 8.5 mm
- Compact design

### Suitable for

- For all standard PV cables to 8.5 mm

Item	Dimension mm	Weight g	Part No.
Photovoltaic stripper	8.5	40	<b>KL735PV</b>





## Hand tools

Stripping tools for communication technology

### Coax-stripper



#### Characteristics

- No need to adjust the cutting depth
- Gradual stripping of all standard coaxial cables (e.g. antenna and transmission cables) 4.8 - 7.5 mm outside diameter

#### Suitable for

- Flexible cables, e.g. 3 x 0.75 mm<sup>2</sup>, 10 mm<sup>2</sup> and 16 mm<sup>2</sup>

Item	Part No.
Coax-stripper	<b>KL720</b>

**DN-AW3 wire stripping tool, 2.5 - 11 mm**



**Characteristics**

- For stripping signal, telephone, AV, control and data transmission cables from copper and fibreglass
- 9 adjustable cutting depths
- Cable capacity: 2.5 - 11 mm diameter
- Insulation thickness: up to 1 mm
- Interchangeable blade holder
- Including one holder with replacement blade

Item	Part No.	
DN-AW3 wire stripping tool, 2.5 - 11 mm	<b>DNAW3</b>	
Accessories	Part No.	Page
Spare holder for DN-AW3	<b>DNAW3M</b>	

# PUTS CABLE WHERE IT NEEDS TO BE SIMPLY AND SAFELY.

Takes every corner flexibly and robustly – cable pulling technology from Greenlee is set apart by quality and the simplest operation possible for every challenge.





# Cable pulling technology

<b>Fish tapes/pulling rods</b>	<b>560</b>
Polyester	560
Perlon	560
Nylon	560
Steel	561
Flex-O-Twist speed flex leader	561
Fibreglass cable pulling rods	561
<hr/>	
<b>Cable pulling systems</b>	<b>562</b>
With Polyester tapes (Dura Spinner and Flexi Spinner)	562
With fibreglass tapes (Speedy Spinner)	563
Fish tapes in winder case	564
Smart Butler	566
<hr/>	
<b>Cable puller</b>	<b>568</b>
Easy Roller (cable drum unwinder)	568
Cable puller with accessory	568
<hr/>	
<b>Pulling grips</b>	<b>570</b>
Pulling grips, closed	570
Pulling grips, open	571
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<b>Accessory</b>	<b>572</b>



# THE PULLING AID - CABLE PULLING TECHNOLOGY

Clean construction site - clean laying. Our cable pulling technology ensures that all cables are cleanly rolled in and out. No parts not required left lying around. No awkward handling. Greenlee pulling systems are made from high-quality ABS plastic. Making them robust and drop-proof. You are in control: Reliable laying with safe cable pulling technology.



#### In brief

- ▶ Simple pulling through of cables and conductors
- ▶ Cable puller made from polyester, perlon, nylon, steel and fibreglass
- ▶ Cable pulling rods for cavities and suspended ceilings
- ▶ Made from high-quality ABS plastic
- ▶ Solutions for light and heavy cable types, angled ducts or long straights



▶ **The Dura Spinner**

The Dura Spinner is small, but has a great effect. High-quality materials ensure robustness and the best functionality. Its user-friendly design also permits unwinding on the floor. The Dura Spinner is even able to hold in place cables that are laid around corners. A genuine help on the construction site.

- ABS plastic housing
- Cable puller made from virtually indestructible polyester tape
- Simple unwinding and rewinding
- Unwinding even on the floor
- User-friendly design ensures convenient and smooth operations



### Polyester fish tape green 4.5 mm dia.



- ▶ 50% less friction than nylon tapes
- ▶ Extremely flexible and almost unbreakable

#### Characteristics

- High thrust due to twisted tape design
- Reduces the pulling force due to much lower friction
- Replaceable pulling eyelet and spring guide head

#### Additional information

- Further detailed information can be found in the application table on page i-12

Length	Part No.	Diameter mm
10 m	52055292	4.5
15 m	52055293	4.5
20 m	52055294	4.5
25 m	52055295	4.5
30 m	52055296	4.5
Accessory	Part No.	
5-piece accessory set for polyester fish tapes	52055396	

### Perlon® fish tape 4 mm dia.



#### Characteristics

- With pressed M4 front piece
- With unscrewable spring guide head and pulling eyelet

#### Additional information

- Further detailed information can be found in the application table on page i-12

Length	Part No.	Diameter mm
5 m	52055276	4
10 m	52055277	4
15 m	52055278	4
20 m	52055279	4
25 m	52055280	4
30 m	52055281	4
Accessory	Part No.	
Replacement parts for Perlon fish tapes, comprising pulling eyes WW 1/2" (1) and spring guide head M4 (1)	52055288	

### Nylon fish tape 4 mm dia.



#### Characteristics

- With pressed spring guide head and eyelet

#### Additional information

- Further detailed information can be found in the application table on page i-12

Length	Part No.	Diameter mm
5 m	52055270	4
10 m	52055271	4
15 m	52055272	4
20 m	52055273	4
25 m	52055274	4
30 m	52055275	4

## Steel fish tape 4 mm dia.



### Characteristics

- With pressed spring guide head and eyelet

### Additional information

- Further detailed information can be found in the application table on page i-12

Length	Part No.	Diameter mm
5 m	<b>52055282</b>	4
10 m	<b>52055283</b>	4
15 m	<b>52055284</b>	4
20 m	<b>52055285</b>	4
25 m	<b>52055286</b>	4
30 m	<b>52055287</b>	4

## Flex-O-Twist™ speed flex leader

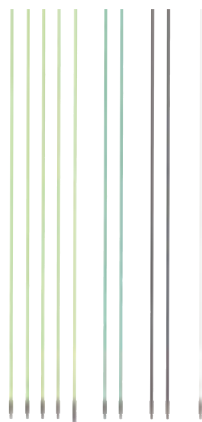


### Characteristics

- Especially suitable for sharp bends
- Flexible fish tape leader

Length	Part No.
300 mm	<b>50308599</b>

## Fibreglass cable pulling rods



### Characteristics

- Almost unbreakable due to special outer jacket
- Time-saving cable laying
- Laying also under the most difficult conditions

### Suitable for

- Cable installation and laying
- Pulling or pushing

Length	Part No.	Version
10 m	<b>52055385</b>	Comprising of: 4 pce. light green fibreglass rods 5.6 mm dia. with WW connecting sleeve, 1 pce. light green fibreglass rod 5.6 mm dia. with WW connecting sleeve and universal joint, 2 pce. black fibreglass rods 6 mm dia. with WW connecting sleeve, 1 pce. white nylon rod 4 mm dia. with WW connecting sleeve, 2 pce. green fibreglass rods 4.6 mm dia. with WW connecting sleeve
5 m	<b>52055386</b>	Consists of: 3 pce. light green fibreglass sticks 5.6 mm dia. with WW connecting bushing, 1 pce. black fibreglass stick 6 mm dia. with WW connecting bushing, 1 pce. white nylon stick 4 mm dia. with WW connecting bushing

Accessories	Part No.
Accessory set for cable pulling rods, 8-pcs.	52055387
Accessory set for cable pulling rods, 4-pcs.	52055388





### Dura Spinner polyester fish tape system



#### Characteristics

- Thin and extremely robust fish tape
- Uncoiling also possible on the floor
- Unique, user-friendly design
- Goes into every corner and holds every cable

#### Suitable for

- The laying of additional cables

Item	Part No.
Dura Spinner 3.8 mm dia., 20 m	<b>52074600</b>
Dura Spinner 3.8 mm dia., 30 m	<b>52074650</b>
Scope of supply	Part No.
Dura Spinner accessory kit, 3 pieces	52074653
Accessories	Part No.
Dura Spinner spare fish tape 3.8 mm dia., 20 m	52074651
Dura Spinner spare fish tape 3.8 mm dia., 30 m	52074652

### Flexi Spinner polyester cable pulling system



- ▶ **Almost unbreakable**
- ▶ **Approx. 50 % less frictional resistance compared with nylon and perlon**
- ▶ **High thrust for long distances with narrow bending radius**

#### Characteristics

- Highly-flexible polyester tape
- Modern design
- Robust housing

#### Additional information

- Further detailed information can be found in the application table on page i-12

Item	Length	Part No.	Diameter mm
Flexi Spinner polyester cable pulling system	20 m	<b>52055389</b>	4.5
Flexi Spinner polyester cable pulling system	25 m	<b>52055390</b>	4.5
Flexi Spinner polyester cable pulling system	30 m	<b>52055391</b>	4.5
Flexi Spinner, winder case empty		<b>52055392</b>	
Scope of supply	Part No.	Quantity	
5-piece accessory set for polyester fish tapes	52055396	1	
Accessories	Part No.	Page	
Polyester fish tape green 4.5 mm dia., 20 m	52055294	560	
Polyester fish tape green 4.5 mm dia., 25 m	52055295	560	
Polyester fish tape green 4.5 mm dia., 30 m	52055296	560	

## Speedy Spinner fibreglass cable pull-in system



- ▶ Unique, user-friendly design
- ▶ Very simple and quick pulling in and out of fibreglass tapes

### Characteristics

- One-handed operation
- Uncoiling also possible on the floor
- Flexible fibreglass spring for quick pulling in and out
- High thrust
- Accessory set supplied as standard

### Suitable for

- Tube diameter: 16 - 32 mm

### Additional information

- Further detailed information can be found in the application table on page i-12
- Always order repair adhesive separately!

Item	Diameter mm	Length	Part No.
Speedy Spinner fibreglass cable pull-in system	3	20 m	<b>52055298</b>
Speedy Spinner fibreglass cable pull-in system	3	30 m	<b>52055299</b>
Speedy Spinner fibreglass cable pull-in system	3	40 m	<b>52055300</b>
Scope of supply			Part No.
Head with eye M5			52055304
Spring guide head with eye M5			52055305
Spring guide head with eye M5 - 10 mm			52055306
Start/bushing sleeves M5			52055308
Connecting sleeves			52055309
Cable grip M5, 4-15 mm dia.			52055310
Pulling aid for pulling system 3 - 6 mm dia.			52055311
Accessories			Part No.
Speedy Spinner accessory, repair patch for fibreglass tape 3 mm dia.			52055312
Fibreglass replacement tape 3 mm dia., 20 m			52055289
Fibreglass replacement tape 3 mm dia., 30 m			52055290
Fibreglass replacement tape 3 mm dia., 40 m			52055291
Speedy Spinner repair set, 10-piece			52055303

Item repair set	Part No.
Speedy Spinner repair set, 10-piece	52055303
Scope of supply repair set	
Part No.	Quantity
Head with eye M5	52055304
Start/bushing sleeves M5	52055308
Connecting sleeves	52055309
Pulling aid for pulling system 3 - 6 mm dia.	52055311

## EASILY FORGOTTEN:

Be aware of the laying temperatures of cables and conductors!  
 These can be obtained from manufacturer's data sheets.  
 For a NYM conductor, for example, this temperature is +5° C.



### MagnumPRO™ oil-hardened steel fish tape



#### Characteristics

- Winder case eases cable pulling
- Dirt-free tape finish
- High impact nylon winder case with large handle grip

Item	Tape dimensions mm	Length	Part No.
MagnumPRO™ oil-hardened steel fish tape	3.2 x 1.5	19.8 m	<b>52041709</b>
MagnumPRO™ oil-hardened steel fish tape	6.4 x 1.5	30.5 m	<b>52041745</b>
MagnumPRO™ oil-hardened steel fish tape	3.2 x 1.5	38.1 m	<b>52041741</b>
MagnumPRO™ oil-hardened steel fish tape	3.2 x 1.5	73.2 m	<b>52041743</b>
Accessories			Part No.
Rotating head eye for 3 mm fish tapes			50293672
MagnumPRO™ oil-hardened steel fish tape 60 m			52044594

### MagnumPRO™ stainless steel fish tape



- ▶ **Stainless, speed flex leader**
- ▶ **Slim pulling eyelet permits trouble-free pulling in long and winding conduits**

#### Characteristics

- Can be used in conjunction with every steel fish tape with a tape dimension of 3.0 x 1.5 mm
- High impact nylon winder case with large handle grip

Item	Tape dimensions mm	Length	Part No.
MagnumPRO™ stainless steel fish tape	3.2 x 1.5	30.5 m	<b>52041746</b>
MagnumPRO™ stainless steel fish tape	3.2 x 1.5	61 m	<b>52041747</b>
Accessory			Part No.
Speed Flex leader for fish tapes with tape dimension 3.0 x 1.5 mm			50143921

### MagnumPRO™ nylon fish tape



- ▶ **Non-conductive, non-coiling nylon tape**

#### Characteristics

- Diameter 4.8 mm
- High impact nylon winder case with large handle grip

Item	Diameter mm	Length	Part No.
MagnumPRO™ nylon fish tape	4.8	15.2 m	<b>52041750</b>
MagnumPRO™ nylon fish tape	4.8	30.5 m	<b>52041751</b>
Accessory			Part No.
Replacement tip			50016644

## MagnumPRO™ fish tape



### Characteristics

- Fish tape from multi-strand steel tape
- Flexible type
- High impact nylon winder case with large handle grip

### Suitable for

- For quick and simple application

Item	Diameter mm	Length	Part No.
MagnumPRO™ fish tape	4.8	15.2 m	<b>52041748</b>
MagnumPRO™ fish tape	4.8	30.5 m	<b>52041749</b>

## MagnumPRO™ fibreglass fish tape



### Characteristics

- Non-conductive fibreglass tape with low friction coating
- To fish in small and large conduits even with wire or cable in place
- High impact nylon winder case with large handle grip

### Suitable for

- Data and telecommunication industry

Item	Diameter mm	Length	Part No.
MagnumPRO™ fibreglass fish tape	4.3	15.2 m	<b>52041752</b>
MagnumPRO™ fibreglass fish tape	4.3	30.5 m	<b>52041753</b>
MagnumPRO™ fibreglass fish tape	4.8	61 m	<b>50357468</b>
MagnumPRO™ fibreglass fish tape	4.8	76.2 m	<b>50357476</b>
Accessory			Part No.
Fibreglass fish tape accessory set			50357506
Pulling eyelet 3.0 mm			50359193
Pulling eyelet 4.8 mm			50359304

## Steel fish tape EZ Reach



### Characteristics

- With hand crank
- Flat steel tape for working above suspended ceilings, under carpets and through walls

Item	Tape dimensions mm	Length	Part No.
Steel fish tape EZ Reach	6.4 x 0.8	7.6 m	<b>50016962</b>



### Smart Butler fibreglass cable pulling-in system with steel reel basket



- ▶ Unique, user-friendly design, galvanised and sprayed
- ▶ Teflon-coated adapter for low resistance when winding and unwinding

#### Characteristics

- High thrust
- Low-friction unwinding and rewinding
- Secure working thanks to operative holding brake
- Effective working with accessories mounted directly on frame
- From size 790 mm dia. steel reel basket, incl. rollers

Item	Diameter mm	steel reel basket mm	Version	Length	Weight kg	Part No.
Smart Butler fibreglass cable pulling-in system 4.5 mm dia. with steel reel basket 330 mm dia. 40 m	4.5	330 dia.		40 m	4	<b>52055313</b>
Smart Butler fibreglass cable pulling-in system 330 mm dia. steel reel basket, 60 m	4.5	330 dia.		60 m	5	<b>52055315</b>
Smart Butler fibreglass cable pulling-in system 330 mm dia. steel reel basket, 80 m	4.5	330 dia.		80 m	6	<b>52055316</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 40 m	6.0	550 dia.		40 m	10	<b>52055325</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 60 m	6.0	550 dia.		60 m	11	<b>52055326</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 80 m	6.0	550 dia.		80 m	12	<b>52055327</b>
Smart Butler fibreglass cable pulling-in system 550 mm dia. steel reel basket, 100 m	6.0	550 dia.		100 m	12	<b>52055328</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 40 m	7.5	660 dia.		40 m	13	<b>52055337</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 60 m	7.5	660 dia.		60 m	14	<b>52055338</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 80 m	7.5	660 dia.		80 m	15	<b>52055339</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 100 m	7.5	660 dia.		100 m	17	<b>52055340</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 120 m	7.5	660 dia.		120 m	18	<b>52055341</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 40 m	9.0	660 dia.		40 m	14	<b>52055347</b>
Smart Butler fibreglass cable pulling-in system 660 mm dia. steel reel basket, 60 m	9.0	660 dia.		60 m	16	<b>52055348</b>
Smart Butler fibreglass cable pulling-in system 790 mm dia. steel reel basket, 80 m	9.0	790 dia.	incl. rollers	80 m	31	<b>52055349</b>
Smart Butler fibreglass cable pulling-in system 790 mm dia. steel reel basket, 100 m	9.0	790 dia.	incl. rollers	100 m	33	<b>52055350</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 120 m	9.0	1000 dia.	incl. rollers	120 m	35	<b>52055351</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 150 m	9.0	1000 dia.	incl. rollers	150 m	37	<b>52055352</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 150 m	11.0	1000 dia.	incl. rollers	150 m	53	<b>52055359</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 200 m	11.0	1000 dia.	incl. rollers	200 m	60	<b>52055360</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 250 m	11.0	1000 dia.	incl. rollers	250 m	67	<b>52055361</b>
Smart Butler fibreglass cable pulling-in system 1000 mm dia. steel reel basket, 300 m	11.0	1000 dia.	incl. rollers	300 m	75	<b>52055362</b>

**Scope of supply**

4.5 / 6 mm dia.: Tension head with eyelet, pulling-in tape with pressed start/end sleeves, connecting sleeve WW 1/4"-M6, starting spinner with shackle

7.5 / 9 / 11 mm dia.: Tension head with eyelet, fish tape with pressed start/end sleeves, connecting sleeve WW 1/2"-M12, starting spinner with shackle

Accessories	Part No.	Accessory	Part No.
Smart Butler fibreglass replacement tape 4.5 mm dia., 40 m	52055317	Starter and end bushing WW 1/2" for fish tape 9 mm dia.	52055370
Smart Butler fibreglass replacement tape 4.5 mm dia., 60 m	52055318	Starter and end bushing WW 1/2" for fish tape 11 mm dia.	52055371
Smart Butler fibreglass replacement tape 4.5 mm dia., 80 m	52055319	Connecting sleeve for fibreglass 4.5 mm dia.	52055322
Smart Butler fibreglass replacement tape 6 mm dia., 40 m	52055329	Connecting sleeve for fibreglass 6 mm dia.	52055334
Smart Butler fibreglass replacement tape 6 mm dia., 60 m	52055330	Connecting sleeves for fibreglass tape 9 mm dia.	52055372
Smart Butler fibreglass replacement tape 6 mm dia., 80 m	52055331	Connecting sleeves for fibreglass tape 11 mm dia.	52055373
Smart Butler fibreglass replacement tape 6 mm dia., 100 m	52055332	Connecting sleeve WW 1/2" with rotary swivel	52055374
Smart Butler fibreglass replacement tape 7.5 mm dia., 40 m	52055342	Bulb with shackle WW 1/4" for 4.5 mm dia.	52055323
Smart Butler fibreglass replacement tape 7.5 mm dia., 60 m	52055343	Bulb with shackle WW 1/4" for 6.0 mm dia.	52055335
Smart Butler fibreglass replacement tape 7.5 mm dia., 80 m	52055344	Bulb with shackle WW 1/2" for 7.5 mm dia.	52055367
Smart Butler fibreglass replacement tape 7.5 mm dia., 100 m	52055345	Bulb with castor WW 1/2"	52055368
Smart Butler fibreglass replacement tape 7.5 mm dia., 120 m	52055346	Tension head with eyelet WW 1/4" for 4.5 - 6 mm dia.	52055320
Smart Butler fibreglass replacement tape 9 mm dia., 40 m	52055353	Emergency repair set for fibreglass tape 4.5 mm dia.	52055324
Smart Butler fibreglass replacement tape 9 mm dia., 60 m	52055354	Emergency repair set for fibreglass tape 6 mm dia.	52055336
Smart Butler fibreglass replacement tape 9 mm dia., 80 m	52055355	Emergency repair set for fibreglass tape 7.5 mm dia.	52055375
Smart Butler fibreglass replacement tape 9 mm dia., 100 m	52055356	Emergency repair set for fibreglass tape 9 mm dia.	52055376
Smart Butler fibreglass replacement tape 9 mm dia., 120 m	52055357	Emergency repair set for fibreglass tape 11 mm dia.	52055377
Smart Butler fibreglass replacement tape 9 mm dia., 150 m	52055358		
Smart Butler fibreglass replacement tape 11 mm dia., 150 m	52055363		
Smart Butler fibreglass replacement tape 11 mm dia., 200 m	52055364		
Smart Butler fibreglass replacement tape 11 mm dia., 250 m	52055365		
Smart Butler fibreglass replacement tape 11 mm dia., 300 m	52055366		
Starter and end bushing WW 1/4" for fish tape 4.5 mm dia.	52055321		
Starter and end bushing WW 1/4" for fish tape 6.0 mm dia.	52055333		
Starter and end bushing WW 1/2" for fish tape 7.5 mm dia.	52055369		



### Easy Roller cable drum unwinder

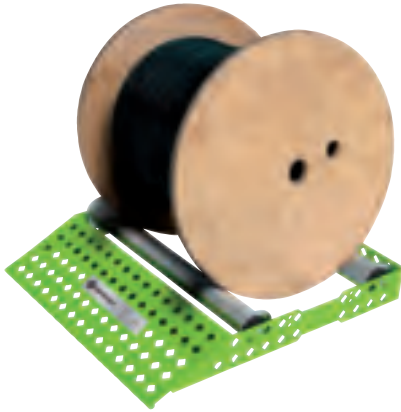
- ▶ Unique, user-friendly design
- ▶ 30 % less weight
- ▶ Ramp with shallow incline

#### Characteristics

- Light - 30% less weight
- Easy loading and unloading of heavy cable drums thanks to the shallow inclined ramp
- Rollers with integrated side guides
- Possible to fit to the cable drum diameter

#### Suitable for

- Large and small cable drums
- Width 530 mm, 200 kg carrying capacity
- Width 670 mm, 250 kg carrying capacity



Item	Dimension mm	Width mm	Part No.
Standard	530 x 570 x 90	530	<b>52055383</b>
Wide	670 x 605 x 95	670	<b>52055384</b>

### Rope for cable puller 6800-22 CE

#### Characteristics

- Breaking strength approx. 14.2 t
- Rope diameter 22 mm
- Rope on rope stand



Item	Part No.
Rope for cable puller 6800-22 CE, 91 m	<b>50341367</b>
Rope for cable puller 6800-22 CE, 182 m	<b>50341375</b>
Rope for cable puller 6800-22 CE, 365 m	<b>50341383</b>
Rope stand for ropes 91 m and 182 m	<b>50343629</b>



## Tray type sheaves for cable puller 6800-22 CE



### Characteristics

- Steel frames with forged eyelet 25 mm
- Sheaves from aluminium alloy with self-lubricating bearings
- Max. rated capacity 3.6 t
- Tool support/hanging ring (Carabiner)

External diameter mm	Internal radius mm	Width mm	Weight kg	Part No.
300	100	125	12	<b>50008722</b>
460	180	150	20	<b>50008730</b>
600	250	165	30	<b>50008749</b>

## Platform-type sheave 125 mm

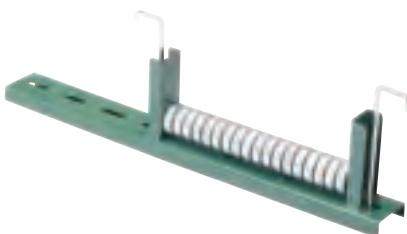


### Characteristics

- Sheaves from aluminium alloy
- Self-lubricating bearings
- Steel frames for mounting to cable ducts up to 50 mm thickness
- Extremely robust

Length mm	Width mm	Weight kg	Part No.
300	125	5	<b>50153323</b>
560	125	8	<b>50190946</b>

## Platform-type sheave



### Characteristics

- Steel ball-bearings
- Steel frames
- Mounting slots
- Universal mounting brackets

Part No.	Version	Width of cable conduit mm	Weight kg
<b>50273833</b>	Straight	300 - 450	3.6
<b>50273841</b>	Straight	500 - 600	4.5
<b>50273868</b>	Straight	600 - 760	5.9
<b>50273884</b>	Radius	300 - 450	5
<b>50273892</b>	Radius	500 - 600	5.4
<b>50273906</b>	Radius	600 - 760	5.9



## Pulling grips Junior, closed



### Characteristics

- Single weave, galvanized steel mesh with flexible pulling eyelet

### Suitable for

- The pulling-in of small diameter cables
- For manual pulling of feed lines in pipes and cable ducts

Part No.	Length of mesh mm	Eye length mm	For cable diameter mm	Max. pulling force kN
<b>50305964</b>	110	83	5 - 6	0.3
<b>50305840</b>	110	83	7 - 9	0.4
<b>50305867</b>	180	96	10 - 12	0.8
<b>50305883</b>	220	110	13 - 15	1.1
<b>50305905</b>	255	130	16 - 18	1.7
<b>50305921</b>	255	146	19 - 25	2.4
<b>50305948</b>	300	165	26 - 31	3.4

## T-Basket type pulling grips, closed



### Characteristics

- Double weave galvanized steel mesh with flexible pulling eyelet

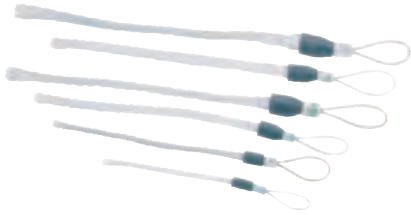
### Suitable for

- Medium-weight pulls in pipes and cable ducts

Part No.	Length of mesh mm	Eye length mm	For cable diameter mm	Max. pulling force kN
<b>50305581</b>	535	200	13 - 15	4.0
<b>50305603</b>	610	200	16 - 18	4.9
<b>50305620</b>	610	230	19 - 25	6.0
<b>50305646</b>	610	230	26 - 38	8.7
<b>50305662</b>	610	280	39 - 50	14.5
<b>50305689</b>	610	300	51 - 63	16.4
<b>50305700</b>	610	300	64 - 76	21.7
<b>50305727</b>	610	360	77 - 88	21.7
<b>50305743</b>	660	360	89 - 100	27.5
<b>50305760</b>	915	230	19 - 25	6.0
<b>50305786</b>	915	230	26 - 38	8.7
<b>50310100</b>	915	280	39 - 50	14.5
<b>50305808</b>	915	300	51 - 63	16.4
<b>50310127</b>	915	300	64 - 76	21.7
<b>50305824</b>	915	360	77 - 88	21.7
<b>50310143</b>	1020	360	89 - 100	27.5

Use a pulling grip so you don't have to strip the cable before it is pulled in! A cable grip allows you to pull with greater force. This prevents tapering of the cross-section.

## Pulling grip set, closed



### Characteristics

- Set of the most important pulling grips for the most frequently required pulling operations

Part No.	Diameter mm
<b>50307584</b>	7 - 31
<b>50314823</b>	19 - 50
<b>50314831</b>	51 - 76
<b>50314840</b>	19 - 76

## Pulling grip, open



### Characteristics

- Single weave, galvanised steel netting mesh with bar closure
- Offset flexible eyelet

### Suitable for

- Easy and straight pulls when the cable end is not available

Part No.	Length of mesh mm	Eye length mm	For cable diameter mm	Max. pulling force kN
<b>50306588</b>	150	175	13 - 15	1.3
<b>50310240</b>	200	175	16 - 18	1.6
<b>50306600</b>	250	175	19 - 25	1.9
<b>50310267</b>	300	200	26 - 31	3.0
<b>50306626</b>	350	200	32 - 38	4.0
<b>50310283</b>	380	230	39 - 44	5.1
<b>50306642</b>	400	250	45 - 50	6.7
<b>50310305</b>	480	250	51 - 63	8.0
<b>50306669</b>	500	250	64 - 76	9.7
<b>50310321</b>	530	300	77 - 88	10.6
<b>50306685</b>	600	300	89 - 100	10.6



## Cable Cream™ cable puller lubricant



### Characteristics

- Adheres well without dripping
- Easy to remove
- Won't break after exposure to heat or freezing cold
- Quality cream (yellow) for quick and easy application

Item	Part No.
Cable Cream™ cable puller lubricant, 0.95 l	<b>50352075</b>
Cable Cream™ cable puller lubricant, 3.8 l	<b>50352083</b>

## Cable installation lubricant



### Characteristics

- Reduces friction by up to 80 %
- Biodegradable
- Harmless to the user

### Suitable for

- Electric/telephone cables in pipes 16 - 25 mm dia.
- Large cable diameters

Item	Part No.
Cable lubricant gel in tube 0.25 kg	<b>52055379</b>
Lubricant foam bottle 1.00 kg	<b>52055380</b>
Cable lubricant liquid for optical fibres and power cables, canister 5 kg	<b>52055381</b>
Cable lubricant liquid for optical fibres and power cables, canister 10 kg	<b>52055382</b>

## Lubricant spray



### Characteristics

- Reduces friction by up to 80 %
- Biodegradable
- Silicon-free

### Suitable for

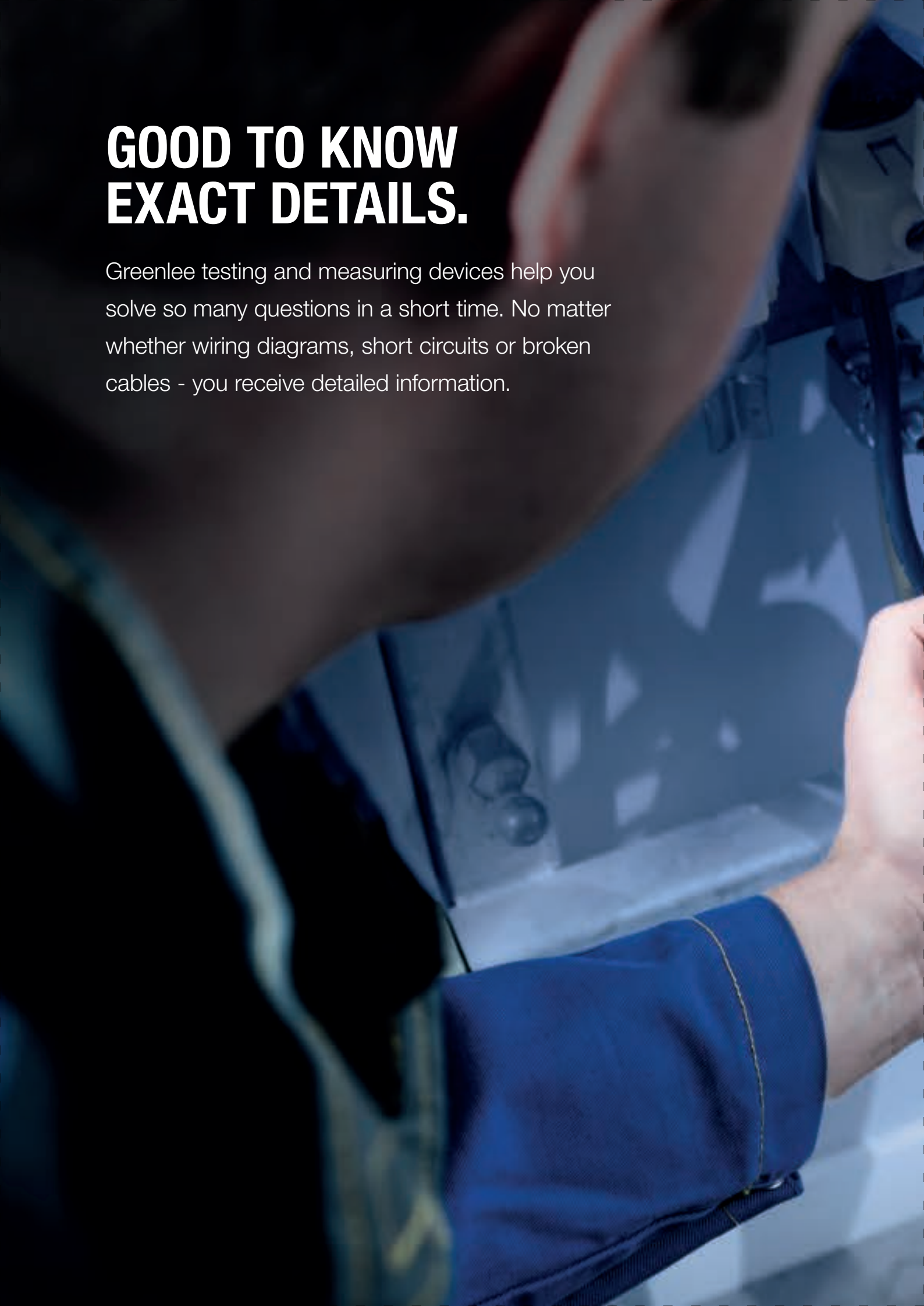
- Electric/telephone cables in pipes 16 - 25 mm dia.

Item	Part No.
Lubricant foam bottle 400 ml	<b>52055378</b>



# GOOD TO KNOW EXACT DETAILS.

Greenlee testing and measuring devices help you solve so many questions in a short time. No matter whether wiring diagrams, short circuits or broken cables - you receive detailed information.





# Testing and measuring instruments

Voltage testers	576
Digital multimeter	580
Digital clamp meters	588
Temperature measuring devices	594



# IMMEDIATELY TO HAND – VOLTAGE TESTERS

Greenlee voltage testers - whether contactless or two-pole - are practically immediately to hand. Always to hand in pocket format, they measure voltages from 5 V to 1000 V AC and 12 V to 750 V AC/DC. If voltage is present, the tester emits an acoustic or optical signal as a warning. Ergonomically-shaped handles ensure the best grip, even when used outdoors. Stay safe with our Greenlee brand.



#### In brief

- ▶ Practical pocket format
- ▶ Automatic warning signals when voltage is present
- ▶ Also for contactless detecting
- ▶ Suitable for outdoor use





▶ **Contactless measuring with the GT-16**

The GT-16 is the practical pen-shaped voltage tester. Automatic signalling in case of voltage and an integrated self-test make the GT-16 a tester with maximum user safety.

- Readily detects broken cables
- Maximum safety through CAT IV 1000 V
- Integrated self-test for optimum safety
- Optical and acoustic signal in case of voltage
- Select from various voltage levels via adjustable sensitivity
- Ergonomic handle
- Limited Lifetime Warranty



▶ **Two-pole measuring with the GT-85NE**

The Greenlee GT-85NE is the ideal solution for voltages from 12 V to 750 V AC/DC. Able to withstand adverse operating conditions.

- Wider AC and DC voltage measurement range
- Acoustic signal with voltages maximises safety
- Automatic phase sequence indicator

- Water and dust proof
- Drop-resistant from 1 m
- Suitable for outdoor use
- Limited Lifetime Warranty





### GT-12A Contactless voltage tester 50 - 1000 V



#### Characteristics

- Contactless voltage testing
- Clear LED and acoustic warning signal when the voltage has been determined
- ON/OFF switch provides longer battery service life
- Handy pen format, which fits easily into a jacket or tool pocket
- Fast, easy replacement of batteries
- Automatic self test

Technical data		
Frequency range	50 - 500 Hz	
Voltage range	50 - 1000 V AC	
Measuring category	CAT IV 1000 V	
Item	Part No.	
GT-12A Contactless voltage tester 50 - 1000 V	52063422	
Scope of supply	Part No.	Page
Battery 2 x 1.5 V AAA		

### GT-16 Adjustable, contactless voltage tester 5 - 1000 V



#### Characteristics

- Contactless voltage testing
- Clear LED and acoustic warning signal when the voltage has been determined
- ON/OFF switch provides longer battery service life
- Handy pen format, which fits easily into a jacket or tool pocket
- Optimum handling due to ergonomically-shaped handle
- Fast, easy replacement of batteries
- Automatic self test
- Adjustable sensibility by rotary switch

Technical data		
Frequency range	50 - 500 Hz	
Voltage range	5 - 1000 V AC	
Measuring category	CAT IV 1000 V	
Item	Part No.	
GT-16 Adjustable, contactless voltage tester 5 - 1000 V	52033580	
Scope of supply	Part No.	Page
Battery 1 x 1.5 V AAA		

## GT-55NE Bipolar voltage tester with LED display



### Characteristics

- LED Display 12, 24, 50, 120, 230, 400, 750 V AC/DC
- Power LED for measuring point illumination
- Display of AC and DC voltage
- Bipolar rotary field testing
- Unipolar phase testing, optical and acoustic
- Continuity check, optical and acoustic
- Drop proof from 1 m
- Polarity indicator, loud beeper
- IP2X contact protection
- IP65 - splash water proof and dust tight

Technical data		
Frequency range	45 - 65 Hz	
Voltage range	12 - 750 V AC/DC	
Measuring category	CAT III 1000 V, CAT IV 600 V	
Item	Part No.	
GT-55NE Bipolar voltage tester with LED display	<b>52049408</b>	
Scope of supply	Part No.	Page
Battery 2 x 1.5 V AAA		
Accessories	Part No.	Page
TC-30 Nylon carrying case for measuring instruments with belt loop	50075365	593
Replacement tips	52034234	

## GT-85NE Bipolar voltage tester with LCD display



### Characteristics

- LC display with backlit display
- Resistance measurement to 2 K $\Omega$
- Power LED for measuring point illumination
- Display of AC and DC voltage
- Bipolar rotary field testing
- Unipolar phase testing, optical and acoustic
- Continuity check, optical and acoustic
- Drop proof from 1 m
- Polarity indicator, loud beeper
- IP2X contact protection
- IP65 - splash water proof and dust tight

Technical data		
Voltage range	12 - 750 V AC/DC	
Resistance	0 - 2 K $\Omega$	
Frequency measurement	30 - 999 Hz	
Measuring category	CAT III 1000 V, CAT IV 600 V	
Item	Part No.	
GT-85NE Bipolar voltage tester with LCD display	<b>52049407</b>	
Scope of supply	Part No.	Page
Battery 2 x 1.5 V AAA		
Accessories	Part No.	Page
TC-30 Nylon carrying case for measuring instruments with belt loop	50075365	593
Replacement tips	52034234	



# VERSATILE IN USE – DIGITAL MULTIMETER

Greenlee multimeters are highly versatile. The functions are geared to your tasks in low-voltage systems. The multimeters measure on phase shift controllers, test conductors for breaks and indicate results in measurement categories CAT II, III and IV. To evaluate and archive the measurements, connect the devices to your PC via a USB cable. Select one multimeter for all tasks.



## In brief

- ▶ Can be used in low-voltage systems in measurement categories CAT II, III and IV
- ▶ Automatic warning signals
- ▶ Also for true RMS measurements
- ▶ Contactless voltage testing



► **Basic: Multimeter DM-510A**

The DM-510A performs all elementary functions. This is the basic meter for every qualified electrician.

- Suitable for industrial electricians and in building installations
- Integrated contactless voltage tester for locating broken cables
- Temperature measurement function via a thermocouple type K (included in the scope of supply) for checking air-conditioning systems in control cabinets or buildings
- Elementary functions for trouble shooting



► **Industrial application: Multimeter DM-820A**

Equipped with true RMS measurement (TRMS function), the DM-820A can also measure non-sinusoidal voltages and currents precisely and reliably. The multimeter knows immediately if measuring lines are incorrectly connected and sends a warning signal and error message on the display.

- Can be used in all low-voltage systems in measurement category CAT IV 1000 V
- Measurements on frequency converters, phase shift controls and mains units without disruptions by voltage peaks
- Integrated TRMS function for measuring non-sinusoidal voltages and currents
- Automatic “Beep Jack” warning signal and optical signal on the display when measuring lines are incorrectly connected



► **For dual displays: Multimeter DM-860A**

Perfect for troubleshooting in electrical systems: The DM-860A allows you to measure and display two measurements at the same time. Saving time and providing an overview. All values are easily legible on the large white display. The DM-860A withstands voltage peaks of up to 12,000 V.

- Extra large display for easy reading
- Dual display: Two measurements can be displayed at the same time
- Measurement category CAT IV 1000 V offers the best-possible safety
- Loop current function: Displays faults in measurement and control equipment



### PDMM-20 Pocket digital multimeter



#### Characteristics

- AC/DC voltage measurement
- Resistance measurement
- Acoustic continuity check
- Contactless voltage testing

Technical data		
Dimension	113 x 53 x 13 mm	
Weight	0.08 kg	
Display	LCD, 6000	
Capacitance	up to 100 µF	
Voltage measurement	1 mV - 450 V	
Resistance	0.001 kΩ - 6 MΩ	
Frequency measurement	10 Hz - 30 kHz	
Measuring category	CAT II 450 V, CAT III 300 V	
Item	Part No.	
PDMM-20 Pocket digital multimeter	<b>50116894v2</b>	
Scope of supply	Part No.	Page
Protective cover		
Test leads		
Battery 3V button cell		

### DM-200A Digital multimeter



#### Characteristics

- Contactless voltage testing
- Automatic and manual range selection
- Large, background lit LC display
- Auto off
- Analogue bar chart
- Optical and acoustic warning in the event of incorrect handling

Technical data		
Dimension	161 x 80 x 50 mm	
Weight	0.34 kg	
Display	LCD, 6000	
Voltage measurement	0.01 mV - 1000 V AC/DC	
Current measurement	0.1 µA - 8 A AC/DC	
Resistance	0.1 Ω - 60 MΩ	
Frequency measurement	10 Hz - 50 kHz sinus wave; 5 Hz - 1 MHz square wave logic level	
Measuring category	CAT II 1000 V, CAT III 600 V, CAT IV 300 V	
Interface	R>S232, USB	
Item	Part No.	
DM-200A Digital multimeter	<b>52047801V2</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
Protective cover		
Battery 2 x 1.5 V AAA		

**DM-210A Digital multimeter for temperature measurement -50 °C up to +1000 °C**



**Characteristics**

- Includes thermoelement
- Automatic and manual range selection
- Large, background lit LC display
- Automatic shut-off
- Analogue bar chart
- Optical and acoustic warning in the event of incorrect handling

Technical data		
Capacitance	60 nF - 3000 µF	
Voltage measurement	0.01 mV - 1000 V AC/DC	
Current measurement	0.1 µA - 8 A AC/DC	
Resistance	0.1 Ω - 60 MΩ	
Frequency measurement	10 Hz - 50 kHz sinus wave; 5 Hz - 1 MHz square wave logic level	
Measuring category	CAT II 1000 V, CAT III 600 V, CAT IV 300 V	
Temperature measurement	-50 °C up to +1000 °C	
Item	Part No.	
DM-210A Digital multimeter for temperature measurement -50 °C up to +1000 °C	<b>52047802V2</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
Protective cover		
Battery 2 x 1.5 V AAA		

# SAFETY FIRST !

Think about your safety and protect yourself from overvoltages in electrical systems!

Wear safety gloves to  
DIN EN 60903 and safety glasses!  
(page 518)







## DM-510A Digital multimeter, True RMS



### Characteristics

- Autocheck function permits the automatic selection of AC V / DC V or resistance with low impedance for ghost-voltage removal
- Contactless voltage detection
- Frequency, temperature and capacity measurement
- Automatic and manual range selection
- Large, background lit LC display
- Max / Min value memory
- Analogue bar chart
- Optical and acoustic warning in the event of incorrect handling

Technical data		
Frequency range	50 Hz - 400 Hz	
Capacitance	60 nF - 3000 µF	
Voltage measurement	0.01 mV - 1000 V AC/DC	
Current measurement	0.1 µA - 8A AC/DC	
Resistance	0.1 Ω - 60 MΩ	
Frequency measurement	5 Hz - 1 MHz	
Measuring category	CAT III 600 V; CAT II 1000 V; CAT IV 300 V	
Temperature measurement	-50 °C up to +1000 °C	
Item	Part No.	
DM-510A Digital multimeter, True RMS	<b>52047803V2</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
Temperature sensor, bright finish		
Battery 2 x 1.5 V AAA		
Accessories	Part No.	Page
TC-20 Nylon carrying case for measuring instruments with carrying strap	50075357	587

## DM-810A Digital multimeter, True RMS



### Characteristics

- Automatic and manual range selection
- Large, background lit LC display
- Two measured values at a glance
- TRMS AC + DC
- Optical and acoustic warning in the event of incorrect handling

Technical data		
Capacitance	0.01 nF - 25 mF	
Voltage measurement	0.01 mV - 1000 V AC/DC	
Current measurement	0.1 $\mu$ A - 10 A AC/DC	
Resistance	0.1 $\Omega$ - 60 M $\Omega$	
Frequencymeasurement	5 Hz - 1 MHz	
Measuring category	CAT IV, 1000 V	
Item	Part No.	
DM-810A Digital multimeter, True RMS	<b>52047805V2</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
TC-20 Nylon carrying case for measuring instruments with carrying strap	50075357	587
Battery		

## DM-820A Digital multimeter, True RMS



### Characteristics

- Contactless voltage detection
- Recording of peak value (5 ms peak hold) max, min and max/min results
- Automatic and manual range selection
- Large, background lit LC display
- Automatic shut-off
- TRMS AC + DC
- Optical and acoustic warning in the event of incorrect handling

Technical data		
Capacitance	0.01 nF - 25 mF	
Voltage measurement	0.01 mV - 1000 V AC/DC	
Current measurement	0.1 $\mu$ A - 10 A AC/DC	
Resistance	0.1 $\Omega$ - 60 M $\Omega$	
Frequencymeasurement	5 Hz - 1 MHz	
Measuring category	CAT IV, 1000 V	
Temperature measurement	-50 °C up to +1000 °C	
Item	Part No.	
DM-820A Digital multimeter, True RMS	<b>52047806V2</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
TC-20 Nylon carrying case for measuring instruments with carrying strap	50075357	587
Battery		
Temperature sensor, bright finish		





## DM-860A Industrial digital multimeter, True RMS



### Characteristics

- Capturing Max, Min and Max-Min results
- Recording of peak value (5 ms peak hold) max, min and max/min results
- Carrying out frequency, temperature and capacity measurements as well as diode tests and continuity checks
- Display of the relative measured value offset for checking the relative measured value changes
- Automatic range selection
- Analogue 41-segment bar chart
- Large, background lit LC display
- Temperature measurements to 1000 °C

### Technical data

Capacitance	50 nF - 9999 µF
Voltage measurement	500 mV - 1000 V
Current measurement	500 µA - 10 A
Resistance	500 Ω - 50 MΩ
Frequency measurement	5 Hz - 200 kHz sinus wave; 5 Hz - 2 MHz square wave logic level
Measuring category	CAT IV 1000 V
Temperature measurement	Type-K, -50 °C up to +1000 °C (-58 °F up to +1832 °F)

Item	Part No.	
DM-860A Industrial digital multimeter, True RMS	<b>52056268V2</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
TC-20 Nylon carrying case for measuring instruments with carrying strap	50075357	587
Temperature sensor, bright finish		

**TC-20 Nylon carrying case with carrying strap for measuring instruments**



**Characteristics**

- With inner pocket for test leads

**Suitable for**

- Series 200, Series 500 and Series 800 measuring instruments

Item	Part No.
TC-20 Nylon carrying case for measuring instruments with carrying strap	<b>50075357</b>

# CONTACTLESS MEASUREMENTS - DIGITAL CLAMP METERS

Quality evident in use. In practice, not every current circuit can be disconnected. Greenlee clamp meters measure currents and voltages without contact. AMP-TIP™ technology permits precise measurements even in confined areas. Numerous functions - one quality.



#### In brief

- ▶ Measure without disconnecting the cable
- ▶ Suitable for confined areas
- ▶ Easily legible display
- ▶ Contactless measurements to 600 A



► For alternating currents to 600 A

The CM-660 is a real lightweight. 185 g lies firmly in the hand thanks to a good grip. Convenient readily legible measurements.

- Contactless measurement of alternating currents up to 600 A
- Sensor for contactless voltage tests
- Lightweight construction saves weight in the tool case
- Built-in deep-pass filter for the most accurate measurements
- Hand grip guarantees very good handling



Expanded functions

The CM-960 is the model that performs several functions. It measures alternating and direct current to 600 A, also non-sinusoidal currents and voltages thanks to the TRMS function (true root mean square).

- Contactless measurement of alternating and direct currents up to 600 A
- Detect voltages without contact
- AMP-Tip technology for precise measurements up to 16 mm<sup>2</sup> conductor cross-section
- The backlit display guarantees very good legibility



### CM-450 Digital clamp meter



#### Characteristics

- Compact, ergonomic design for measuring in tight spaces
- Data hold function for recording important measurement results
- Acoustic continuity check

Technical data		
Display	LCD	
Current measurement	0.01 A - 400 A AC	
Measuring category	CAT III 600 V	
Jaw size	26 mm	
Item	Part No.	
CM-450 Clamp multimeter	<b>52033579V2</b>	
Scope of supply	Part No.	Page
Battery 3 V button cell		
Test leads		

### CM-660 Digital clamp meter



#### Characteristics

- Contactless voltage testing
- AMP TIP™
- Data hold function for recording important measurement results
- Intelligent Automatic Power OFF (APO)
- Record mode for Max/Min/Average

Technical data		
Display	LCD	
Continuity test	yes	
Voltage measurement	0 V - 600 V AC/DC	
Current measurement	0.1 A - 600 A AC	
Resistance	0.1 Ω - 60 kΩ	
Measuring category	CAT III 600 V, CAT IV 300 V	
Jaw size	30 mm	
Item	Part No.	
CM-660 Digital clamp meter	<b>52066379</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
Battery 2 x 1.5 V AAA		

## CM-860 Digital clamp meter



### Characteristics

- Particularly suitable for measurements on frequency converters
- Measurement of alternating voltage and alternating current
- Illuminated display
- Longer battery life due to intelligent automatic power-off

Technical data		
Display	LCD	
Voltage measurement	0 V - 600 V AC/DC	
Current measurement	0.1 A - 600 A AC	
Resistance	0.1 - 60 kΩ	
Measuring category	CAT III 600 V, CAT IV 300 V	
Jaw size	30 mm	
Item	Part No.	
CM-860 Digital clamp meter	<b>52066378</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
Battery 2 x 1.5 V AAA		

## CM-960 Digital clamp meter



### Characteristics

- Jaw opening 51 mm
- Current measurement AC/DC
- Easy-to-read backlit display for poor lighting conditions
- Peak hold and data hold function for recording measurement results
- Automatic range selection
- Relative zero point mode
- Use of bright conductor

Technical data		
Display	LCD	
Voltage measurement	0 - 600 V AC/DC	
Current measurement	0 - 600 A AC/DC	
Frequency measurement	5 Hz - 999 Hz	
Measuring category	CAT III 600 V, CAT IV 300 V	
Jaw size	35 mm	
Item	Part No.	
CM-960 Digital clamp meter	<b>52066376</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
Battery 2 x 1.5 V AAA		



### CM-1360 Digital clamp meter



#### Characteristics

- True RMS actual effective value for the most precise measurements
- Illumination of the measuring point
- Easy-to-read backlit display for poor lighting conditions
- Acoustic continuity check
- Longer battery life due to intelligent automatic power-off
- Data hold function for recording measurement results

Technical data		
Display	LCD	
Voltage measurement	0 - 1,000 V AC/DC	
Current measurement	0 - 1,000 A AC/DC	
Resistance	0.1 - 60 kΩ	
Measuring category	CAT III 1,000 V, CAT IV 600 V	
Jaw size	51 mm	
Item	Part No.	
CM-1360 Digital clamp meter	<b>52066374</b>	
Scope of supply	Part No.	Page
TSG-3 test leads	50120344	
TC-30 Nylon carrying case for measuring instruments with belt loop	50075365	593
Battery 2 x 1.5 V AAA		

### CM-1560 Digital clamp meter



#### Characteristics

- Jaw opening 51 mm
- True RMS actual effective value for the most precise measurements
- Particularly suitable for measurements on frequency converters
- Easy-to-read backlit display for poor lighting conditions
- Diode test
- Acoustic continuity check
- Illumination of the measuring point

Technical data		
Display	LCD	
Voltage measurement	0 - 1,000 V AC/DC	
Current measurement	0 - 1,000 A AC/DC	
Frequency measurement	5 Hz - 999 Hz	
Measuring category	CAT III 1,000 V, CAT IV 600 V	
Jaw size	51 mm	
Item	Part No.	
CM-1560 Digital clamp meter	<b>52066372</b>	
Scope of supply	Part No.	Page
TC-30 Nylon carrying case for measuring instruments with belt loop	50075365	
TSG-3 test leads	50120344	593
Battery 2 x 1.5 V AAA		

**TC-30 Nylon carrying case for measuring instruments with belt loop**

**Suitable for**

- CM-1360 / CM-1560
- Voltage tester GT-55NE / GT-85NE



Item	Part No.
TC-30 Nylon carrying case for measuring instruments with belt loop	<b>50075365</b>



# THERMAL MEASUREMENTS FROM A DISTANCE - TEMPERATURE GAUGES

Greenlee temperature gauges are ideal for preventive maintenance. Infra-red sensors measure without contact, even in confined areas. This allows the temperatures of motors and electrical connections to be measured and read from a safe distance. The measurements are used to identify fault sources in the electrical system.



## In brief

- ▶ Contactless measurements, even in confined areas
- ▶ Limit values can be set
- ▶ Automatic warning signals when values deviate
- ▶ Single or dual laser to focus on the measuring range



► Accuracy counts

The TG-1000 can be used for temperatures from -60 °C to 550 °C. When the minimum and maximum values are entered, the user automatically receives an acoustic and optical warning signal if the values are overrun or underrun. Even from a distance of 1.2 m, the TG-1000 measures to an accuracy of 10 cm.

- Optimised measuring range for maintenance tasks
- Single laser for focussing on the measuring point
- Visual resolution 12:1 (measures from 1.2 m away at an accuracy of 10 cm)
- Acoustic and optical warning signal when set values for monitoring limit values are reached



► Double focus for the measuring range

The TG-2000 measures with more accuracy. It clearly marks your measuring range with the dual laser. The visual resolution of 16:1 ensures exact values. Even at a distance of 3.2 m, the temperatures of objects and conductors can be accurately measured to a range of 20 cm. As a result, the TG-2000 guarantees the optimum safe distance to the object being measured.

- Optimum measuring range for maintenance and fault analysis in electrical systems
- Dual laser for focussing on the measuring range
- Acoustic and optical warning signal when defined limit values are reached
- Connection point for thermocouple type K for temperature measurements with contact
- Emission ratio of all standard materials included in the operating instructions



### TG-1000 Infrared thermometer



#### Characteristics

- Lower / upper limit values adjustable
- Display with background illumination for comfortable read-off in all work areas
- Temperature display selectable in Celsius (°C) or Fahrenheit (°F)
- Maximum/minimum temperature, difference and average measurements
- Twin laser for identification of the approximate diameters of the target measuring area
- Bush for type K thermocouple

#### Suitable for

- Preventative maintenance of switching devices, motors and electrical connections

Technical data	
Monitor	LCD
Optical resolution	12:1
Temperature measurement	-60 °C up to +550 °C
Item	Part No.
TG-1000 Infrared thermometer	52059365

### TG-2000 Dual laser infrared thermometer



#### Characteristics

- Lower / upper limit values adjustable
- Display with background illumination for comfortable read-off in all work areas
- Temperature display selectable in Celsius (°C) or Fahrenheit (°F)
- Maximum/minimum temperature, difference and average measurements
- Twin laser for identification of the approximate diameters of the target measuring area
- Bush for type K thermocouple

#### Suitable for

- Preventative maintenance of switching devices, motors and electrical connections



Technical data	
Monitor	LCD
Optical resolution	16:1
Temperature measurement	-60 °C up to +625 °C
Item	Part No.
TG-2000 Dual laser infrared thermometer	52059364

### TPB Temperature probe for temperatures of -40 °C to +204 °C



Technical data	
Sensor length	1 m ±5 mm (39.4" ±0.2")
Temperature measurement	-40 °C up to +204 °C (-40 °F up to +399 °F)
Thermoelement	Thermocouple type K
Item	Part No.
TPB Temperature probe for temperatures of -40 °C to +204 °C	50075926

# Technical Appendix

	<b>Technical notes on the various crimping types</b>	<b>i-2</b>
	Legend of pictograms used for type of conductors	i-2
	<hr/>	
	<b>Legend of pictograms used for connecting materials</b>	<b>i-3</b>
	<hr/>	
	<b>Special properties of connecting materials</b>	<b>i-4</b>
	Material properties	i-4
	Electrical properties	i-4
	Mechanical properties	i-4
	Assignment of cables and conductors	i-5
	<hr/>	
<b>Processing instructions for connecting materials</b>	<b>i-6</b>	
Assembly instructions for cable lugs and connectors	i-6	
Assembly instructions for sleeves for type VHR and VHD compacted conductors	i-7	
Processing instructions for reduction sleeves	i-7	
Assembly instructions for full tension Al/steel connectors to DIN 48085, part 3	i-7	
General notes	i-8	
<hr/>		
<b>Processing instructions for screw connectors</b>	<b>i-8</b>	
<hr/>		
<b>Check-list for custom made cable lugs and connectors</b>	<b>i-9</b>	
<hr/>		
<b>Check-list for custom made crimping dies</b>	<b>i-10</b>	
<hr/>		
<b>Conversion charts</b>	<b>i-11</b>	
<hr/>		
	<b>General technical information</b>	<b>i-12</b>
	Cable pulling technology – Typical applications	i-12
	Measuring categories	i-13
	Metric cable glands EN 50262	i-14
	Holemaking systems	i-14
	Hydraulic punches	i-14
	Standards and norms	i-15
<hr/>		
<b>Alphabetical index</b>	<b>i-16</b>	
<b>Alphanumerical Index</b>	<b>i-18</b>	



### Technical notes on the various crimping types

	Crimping	Designation	Crimping range
	Hexagonal crimping	for crimping tubular copper cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, compression cable lugs and connectors to DIN 46235/DIN 46267, aluminum cable lugs and connectors	6 – 1000 mm <sup>2</sup>
	Indent crimping	for crimping tubular copper cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, solderless terminals to DIN 46234 and pin cable lugs to DIN 46230, insulated solderless terminals, tubular cable lugs and connectors for fine stranded conductors, nickel tubular cable lugs and connectors, stainless steel tubular cable lugs and connectors	0.75 – 400 mm <sup>2</sup>
	Oval crimping	for crimping tubular double compression cable lugs, C-clamps, insulated tubular cable lugs and connectors, insulated pin cable lugs and compression joints to DIN 48217, insulated cable connectors	0.1 – 185 mm <sup>2</sup>
	Indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, tubular cable lugs and connectors for fine stranded conductors	6 – 400 mm <sup>2</sup>
	Double indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, nickel tubular cable lugs and connectors, stainless steel tubular cable lugs and connectors	4 – 95 mm <sup>2</sup>
	Trapezoid crimping	for crimping cable end-sleeves and twin cable end-sleeves	0.14 – 240 mm <sup>2</sup>
	Indent crimping	for crimping cable end-sleeves and twin cable end-sleeves	0.5 – 35 mm <sup>2</sup>
	Square crimping	for crimping cable end-sleeves and twin cable end-sleeves	0.14 – 16 mm <sup>2</sup>
	Roll crimping	for crimping non-insulated receptacles and cable end-sleeves DIN 46228, part 2	0.1 – 6 mm <sup>2</sup>
	Round crimping	for crimping cable end-sleeves and twin cable end-sleeves	0.14 – 16 mm <sup>2</sup>
		of 90° and 120° sector-shaped conductors	10 sm – 300 sm 35 se – 300 se
	Quad-point indent crimping	for crimping copper tubular cable lugs and connectors "standard type", tubular cable lugs for switchgear connections, tubular cable lugs and connectors for fine stranded conductors	10 – 300 mm <sup>2</sup>
	Four point crimping	for crimping turned pin receptacles and pin connectors	0.1 – 4 mm <sup>2</sup>
	Special trapezoid crimping	particularly for crimping cable end-sleeves with compacted fine stranded conductors	10 - 240 mm <sup>2</sup>
	Gas-tight oval crimping	Crimp quality according to automotive standards	

### Legend of pictograms used for type of conductors

	Type of cables		Type of cables
	Solid conductor (class 1 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy		Solid sector shaped conductor 90 ° (class 1 according to DIN EN 60228) made of aluminium or aluminium alloy
	Multi-stranded conductor (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy		Compacted multi-stranded sector shaped conductor 120 ° (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
	Compacted multi-stranded conductor (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy		Compacted multi-stranded sector shaped conductor 90 ° (class 2 according to DIN EN 60228) made of bright or coated soft-annealed copper, aluminium or aluminium alloy
	Fine stranded conductor (class 5 according to DIN EN 60228) made of bright or coated soft-annealed copper		Copper conductor for overhead lines (DIN 48201-1) and aluminium or aluminium alloy conductors (DIN EN 50182)
	Superfine stranded conductor (class 6 according to DIN EN 60228) made of bright or coated soft-annealed copper		Conductor for overhead lines (DIN EN 50182) made of aluminium / steel
	Solid sector shaped conductor 120 ° (class 1 according to DIN EN 60228) made of aluminium or aluminium alloy		

## Legend of pictograms used for connecting materials

	Designation
	Copper compression cable lugs, double crimp (double cable entry)
	Tubular cable lugs and connectors – Cu, standard type
	Insulated cable lugs and connectors; standard type
	Tubular cable lugs and connectors for fine stranded conductors
	Tubular cable lugs and connectors for solid conductors
<b>VA</b> 	Tubular cable lugs and connectors – stainless steel
<b>Ni</b> 	Tubular cable lugs and connectors – Ni
<b>DIN</b> 	Compression cable lugs and connectors to DIN – Cu
	Solderless terminals, connectors and pin terminals to DIN – Cu
	Insulated solderless terminals
	Sleeves for compacted conductors and sector-shaped conductors – Cu
<b>Aldrey</b> 	Compression cable lugs and connectors for Aldrey cables
<b>Al/St</b> 	Compression cable lugs and connectors for Al/St cables
<b>Al</b> 	Compression cable lugs and connectors to DIN – Al
<b>Al/Cu</b> 	Compression cable lugs and connectors – Al/Cu
	C-clamps
	H-clamps
	Cable end-sleeves
	Twin cable end-sleeves
	Insulated cable connections
	Non-insulated receptacles





### Material properties

#### Information on materials used for copper and aluminum cable lugs and connectors

- All copper tubular cable lugs, solderless terminals, pin terminals and the corresponding connectors are manufactured from Cu to DIN 13600.
- Cable end-sleeves to DIN 46228 part 1 and part 4 are manufactured from Cu to DIN EN 13600.
- Aluminum compression cable lugs and connectors are manufactured from E-Al 99.5 to DIN 1712.

### Electrical properties

- Our cable connections can be loaded with the currents defined in VDE 0298. For higher current loads, we ask for consultation. The current values of VDE 0298 can be found in the table below.

Nominal cross-section mm <sup>2</sup>	Group 1 One or more single-core conductors laid in conduits		Group 2 Multi-core conductors, e. g. sheathed conductors, conduit wires, lead-sheathed conductors, flat webbed conductors, flexible cables		Group 3 Overhead single-core conductors with clearance of at least their diameter	
	Cu (A)	Al (A)	Cu (A)	Al (A)	Cu (A)	Al (A)
0.75	–	–	12	–	15	–
1	11	–	15	–	19	–
1.5	15	–	18	–	24	–
2.5	20	–	26	–	32	–
4	25	–	34	–	42	–
6	33	–	44	–	54	–
10	45	–	61	48	73	57
16	61	48	82	64	98	77
25	83	65	108	85	129	103
35	103	81	135	105	158	124
50	132	103	168	132	198	155
70	165	–	207	163	245	193
95	197	–	250	197	292	230
120	235	–	292	230	344	268
150	–	–	335	263	391	310
185	–	–	383	301	448	353
240	–	–	453	357	528	414
300	–	–	504	409	608	479
400	–	–	–	–	726	569
500	–	–	–	–	830	649

Values applicable only at an ambient temperature of 30 °C

### Mechanical properties

- The connections produced according to the assembly instructions with our tools comply with the tensile strength requirements of the standards IEC 61238-1, DIN EN 60999 and DIN EN 60352-2.

**i** **Please note,** that crimping solderless cable connections using tools from other manufactures does not guarantee a proper connection. We recommend only the use of solderless cable connections from **Klauke®** using **Klauke®** tools.

## Assignment of cables and conductors

### a) Copper

- Our copper cable lugs and connectors are suitable for connecting copper cables according to DIN EN 60228 and copper conductors DIN 48201 part 1. Please use the table below.

### b) Aluminium

- Our aluminium cable lugs and connectors are suitable for connecting aluminium cables according to DIN EN 60228 and aluminium conductors according to DIN EN 50182. Please use the table below.



Sector-shaped conductors must be rounded with pre-rounding tools before assembly.

### Cross-section compatibility chart for cable lugs and connectors for copper and aluminum conductors

- With the help of this table you can determine the cross-section of your conductor in case of doubt. The minimum diameter of the conductor is for the classes 1 and 2 (not compacted). For classes 5 and 6 are defined by the conductance rather than the minimum diameter. Therefore, no specification can be made regarding the minimum diameter.

Nominal cross-section mm <sup>2</sup>	Type of conductor acc. to DIN EN 60228								
	Copper conductors					Aluminium conductors			
	Round conductor solid, class 1	Round conductor multi-stranded, class 2	Round conductor multi-stranded compacted, class 2		Round conductor fine and superfine, class 5 and class 6	Round conductor solid, class 1		Round conductor multi-stranded compacted, class 2	
	Max. conductor dia. mm	Max. conductor dia. mm	Min. conductor dia. mm	Max. conductor dia. mm	Max. conductor dia. mm	Min. conductor dia. mm	Max. conductor dia. mm	Min. conductor dia. mm	Max. conductor dia. mm
0.5	0.9	1.1	–	–	1.1	–	–	–	–
0.75	1	1.2	–	–	1.3	–	–	–	–
1	1.2	1.4	–	–	1.5	–	–	–	–
1.5	1.5	1.7	–	–	1.8	–	–	–	–
2.5	1.9	2.2	–	–	2.4	–	–	–	–
4	2.4	2.7	–	–	3	–	–	–	–
6	2.9	3.3	–	–	3.9	–	–	–	–
10	3.7	4.2	3.6	4	5.1	3.4	3.7	3.6	4
16	4.6	5.3	4.6	5.2	6.3	4.1	4.6	4.6	5.2
25	5.7	6.6	5.6	6.5	7.8	5.2	5.7	5.6	6.5
35	6.7	7.9	6.6	7.5	9.2	6.1	6.7	6.6	7.5
50	7.8	9.1	7.7	8.6	11	7.2	7.8	7.7	8.6
70	9.4	11	9.3	10.2	13.1	8.7	9.4	9.3	10.2
95	11	12.9	11	12	15.1	10.3	11	11	12
120	12.4	14.5	12.3	13.5	17	11.6	12.4	12.3	13.5
150	13.8	16.2	13.7	15	19	12.9	13.8	13.7	15
185	15.4	18	15.3	16.8	21	14.5	15.4	15.3	16.8
240	17.6	20.6	17.6	19.2	24	16.7	17.6	17.6	19.2
300	19.8	23.1	19.7	21.6	27	18.8	19.8	19.7	21.6
400	22.2	26.1	22.3	24.6	31	21.2	22.2	22.3	24.6
500	–	29.2	25.3	27.6	35	24	25.1	25.3	27.6
630	–	33.2	28.7	32.5	39	27.3	28.4	28.7	32.5
800	–	37.6	–	–	–	30.9	32.1	–	–
1000	–	42.2	–	–	–	34.8	36	–	–





### Assembly instructions for cable lugs and connectors

- 1 Strip conductor in line with insertion depth (+ 10 % because of length change of crimp sleeve).
- 2 The conductor ends must be cleaned mechanically prior to assembly.
- 3 Insert conductor fully into cable lug or connector.
- 4 Observing the crimping direction, crimp the cable lug or connector using the appropriate tools. The crimping direction for cable lug and connector is indicated in the diagram opposite.
- 5 Remove excess compound emerging from aluminum cable lugs and connectors.

We recommend the following number of crimps for individual cross sections:

Cross-section in mm <sup>2</sup>	Tubular cable lugs			Cable lugs DIN 46235		Al-Cable lugs		
	5 mm Crimping die	width Crimping dies (quad-point indent crimping **)	EKM60ID	5 mm Crimping die	width Crimping dies	7 mm Crimping die	width Crimping dies	EKM60ID
6	1			2				
10	1		1	2				
16	1	1	1	2	1	4	2	
25	2	1	1	2	1	4	2	
35	2	1	1	2	1	5	2	
50	2	1	1	3	1	5	2	2
70	2	1	1	3	1	6	3	3
95	2	1	1	4	2	6	3	3
120	2	1	1	4	2	6	3	3
150	2	1	1	4	2	6	3	3
185	2	1*	1	4	2	6	3	3
240	4	2	2	5	2	8	3	3
300	4	2		5	2	8	3	
400	4	2			3		4	
500					3		4	
625					3			
800					3			
1000					4 (20 mm) 2 (40 mm) ***			

\* when using quad-point indent crimping (HK60VP, EK60VP/FT etc.) Number of crimping operations: 2

\*\* Note the cross section of the tool !

\*\*\* Crimp with crimping dies of Series 100

**i** When crimping F-series cable lugs and solderless terminals according to DIN 46234 by using indent crimping dies, for each cross section only one crimp is necessary.

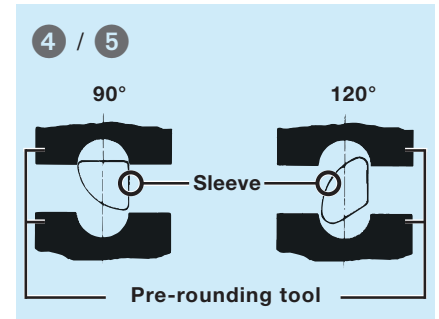
## Assembly instructions for sleeves for type VHR and VHD compacted conductors

We recommend the use of additional VHR and VHD sleeves for compacted round conductors to ensure that the tubular cable lugs and connectors fit accurately.

For sector-shaped conductors, we recommend the use of additional sector sleeves VHR 3 or VHR 4 and VHD 3 or VHD 4 with Cu cable lugs and connectors to prevent the conductor recoil. Sleeves need to be rounded with pre-rounding tools.

### Please note:

- 1 Ensure that the conductor is deformed as little as possible when cutting to length.
- 2 Strip the conductor insulation in line with the insertion length.
- 3 Slip the sleeve up to the front cut edge of the conductor.
- 4 Place the conductor and sleeve in the pre-rounding tool as per the diagram.
- 5 Crimp the sleeve
  - a) Crimping operation as per the diagram (1st pre-crimp)
  - b) Crimp turned through 90° (2nd pre-crimp)
  - c) Crimp turned through 30° (finish-crimp)
  - d) Crimp turned through 30° as required (finish-crimp)



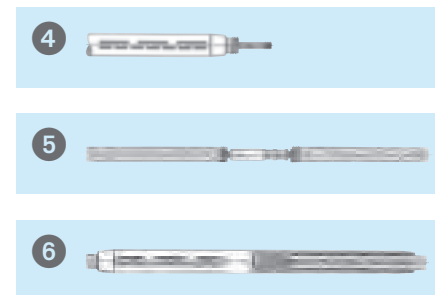
## Instructions for fitting reduction sleeves

Only wide hydraulic crimping dies to be used when crimping more than two cross-sections.

## Assembly instructions for full tension Al/steel connectors to DIN 48085, part 3

The connectors consist of an Al sleeve (E-Al 99.5) and a soft steel sleeve (St 52).

- 1 Straighten cable ends, remove dirt and any oxide layer.
- 2 Slip the Al-compression joint onto one of the cable ends.
- 3 Tie off the cable end and strip the Al cores.
- 4 Tie off Al and steel cores.
- 5 Slip on the steel sleeve and crimp through according to the crimping marks.
- 6 Slide the Al sleeve centrally over the crimped steel sleeve and crimp according to the crimping marks



**Caution:** Do not crimp in the centre, in the area of the steel connector. Do not crimp in the area of the cones.

- 7 Remove excess compound after crimping the connector.



**Warning:** The compound must not be removed, either fully or partially, prior to assembly.

The tool dies can be assigned either by colour-coding, or preferably based on the code assigned to the cross-section. The dies for the steel sleeve have a black finish, those for the Al sleeve are zinc-coated.

### General information:

The crimping process has to be continued until the dies are completely closed, otherwise a proper crimp cannot be guaranteed.



## General notes

### Crimping dies:

The crimping dies of the series 18 as well as the series 25 correspond in the external dimensions of DIN 48083 part 1 or part 3. For all interchangeable dies, for mechanical tools as well as hydraulic tools, the series D (= for DIN cable lugs and connectors 46235 and 46267) and the series A (aluminium cable lugs and connectors as well as aluminium/copper cable lugs and connectors) the hexagonal dimensions are of DIN 48083 part 4.

### Surfaces:

All mentioned dies are supplied "chrome-yellow" or „blue coated“ for copper and "galvanized" for aluminum and nickel.

Testing of our copper and aluminium connecting material was carried out with the following maximum torque on the connecting bolt.

Size of thread	Tightening torque (Nm)	Size of thread	Torque (Nm)
M 5	5	M 12	75
M 6	9	M 14	120
M 7	15	M 16	190
M 8	22	M 20	380
M 10	44		

## Assembly instruction for screw connectors

Because they are detachable connecting elements, screw connectors are used preferably for heat-shrunk or cast resin joints. However, they also can be used in all other types of cable joints. Four-screw connectors are especially suitable for multi-stranded conductors, since the longer connector length increases the transverse conductance of the individual wires and the contact resistance decreases accordingly. In addition, higher pull-out values are achieved. Barrier type four-screw connector clamps are suitable for cables with mass-impregnated paper insulation.

In an electrolyte-free, e.g. dry environment, aluminum as well as copper conductors can be combined. This also applies in combination with heat-shrunk hoses. If conductors of different materials (e.g. Cu and Al cables) have to be connected, a barrier type connector is recommended.

While identical types of cables (e.g. NAYY-NAVY) can be used with non-barrier types of connectors for unequal cables (e.g. NAYY-NAKBA), plastic or earth cables, the use of connectors with barrier as an oil stop is recommended.

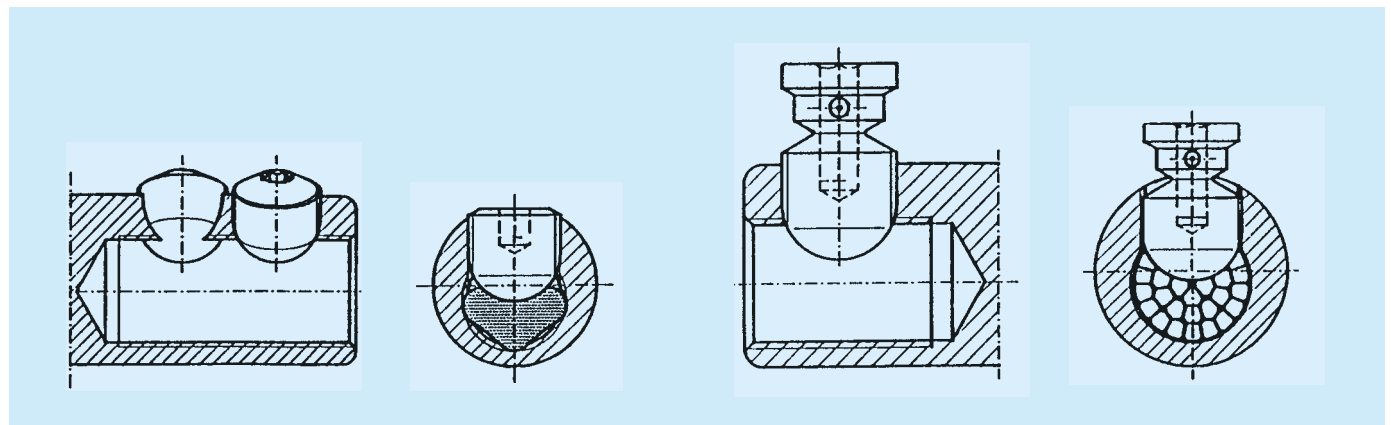
Insertion depth of conductors is controlled either by the conductor stop at the barrier, or by inspection hole on screw connectors without barrier.

In addition to the conventional screw connectors, we offer screw connectors with shear-off heads. The benefit of this design is the defined tightening torque, which is pre-determined by the maximum transferable torque at the rated breaking point. This contact force defined by the manufacturer guarantee optimum electrical and mechanical properties (DIN EN 61238). No torque wrenches are required for assembly of this connector type.

With standard screw connectors, the required contact pressures are reached at approx. 80 % of the specified torque. Over-crimping beyond the torque specified for the connector must be avoided.

The cross-grooves on the conductor channels allow high tensile forces to be transmitted. The tensile forces of our screw connectors correspond to compression joints to DIN 46267, part 2, with identical cross section.

The screws are treated with a high-gliding, molybdenum sulphide-based lubricant. This guarantees adequate contact pressure with a relatively low tightening torque.



## Check-list for custom made cable lugs and connectors

Customer / Company: .....

Address: .....

Contact person: .....

Customer No.: .....

E-Mail: .....

Tel.: .....

### Technical data

Type of conductor\*: .....

Cross-section (cable)\*: .....

Application / Use\*: .....

Crimping tool\*: .....

Similar Klauke item\*: .....

### Commercial Data

Batch size / Annual requirement\*: .....  einmalig

Partial shipments\*:  1  2  3  .....

Additional agreements: .....

### Cable lugs und Verbinder

Material\*:  Cu  Al  Ni  V4A  V2A

Other: .....

Surface\*:  tin-plated  bright  nickel-plated

Other: .....

\* Required fields

Cable lug

Dimension d4 .....  
 Dimension d1 .....  
 Dimension d2 .....  
 Dimension a .....  
 Dimension l .....  
 Dimension b .....  
 Dimension c1 .....  
 Dimension c2 .....  
 Dimension e .....

Inspection hole  Yes  No

Cable lug with two holes in palm

Dimension d4 .....  
 Dimension d1 .....  
 Dimension d2 .....  
 Dimension a .....  
 Dimension l .....  
 Dimension b .....  
 Dimension c1 .....  
 Dimension c2 .....  
 Dimension e .....

Inspection hole  Yes  No

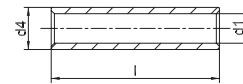
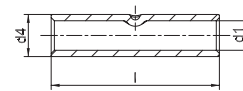
Cable lug with hook

Dimension d4 .....  
 Dimension d1 .....  
 Dimension d2 .....  
 Dimension a .....  
 Dimension l .....  
 Dimension b .....  
 Dimension c1 .....  
 Dimension c2 .....  
 Dimension e .....  
 Angle wh .....

Inspection hole  Yes  No

Connector

Dimension d4 .....  
 Dimension d1 .....  
 Dimension l .....



Number of butt marks: 0 / 1 / 2 .....

Angle cable lug from 30° to 90°

Dimension d4 .....  
 Dimension d1 .....  
 Dimension d2 .....  
 Dimension a .....  
 Dimension x1 .....  
 Dimension b .....  
 Dimension c1 .....  
 Dimension l3 .....  
 Angle w1 .....

Inspection hole  Yes  No

Angle cable lug up to 30°

Dimension d4 .....  
 Dimension d1 .....  
 Dimension d2 .....  
 Dimension a .....  
 Dimension b .....  
 Dimension c1 .....  
 Dimension c2 .....  
 Angle wh .....  
 Angle w1 .....

Inspection hole  Yes  No

Other types acc. to your sketches/remarks (extra sheet):

### Drawings and dimensions: Please fill in all required dimensions (see dimension chart) and necessary data.

Date: .....

Signature (customer): .....



### Check-list for custom made crimping dies

Customer / company: .....

Customer No.: .....

Address: .....

E-Mail: .....

Contact person: .....

Tel.: .....

#### Technical data

Type of conductor\*: .....

Cross-section\*: .....

Material\*: .....

Application / use\*: .....

Available crimping tool\*: .....

Similar Klauke item: .....

#### Commercial data

Batch size / Annual requirement\*: .....  one-off

Partial shipments\*:  1  2  3  .....

Additional agreements: .....

\* Required items

#### Characteristics crimping dies

##### Series

- |                               |                               |                                |
|-------------------------------|-------------------------------|--------------------------------|
| <input type="checkbox"/> K 4  | <input type="checkbox"/> K 5  | <input type="checkbox"/> K 18  |
| <input type="checkbox"/> K 22 | <input type="checkbox"/> K 13 | <input type="checkbox"/> K 25  |
| <input type="checkbox"/> K 45 | <input type="checkbox"/> K 50 | <input type="checkbox"/> K 100 |















Other: .....

##### Attached

- |          |                              |                             |
|----------|------------------------------|-----------------------------|
| Sketch:  | <input type="checkbox"/> yes | <input type="checkbox"/> no |
| Drawing: | <input type="checkbox"/> yes | <input type="checkbox"/> no |
| Sample:  | <input type="checkbox"/> yes | <input type="checkbox"/> no |

Other: .....

#### Crimping profile

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Hexagonal crimping<br>         | <input type="checkbox"/> Round crimping<br>                      | <input type="checkbox"/> Double indent crimping<br> |
| <input type="checkbox"/> Gas-tight oval crimping<br>    | <input type="checkbox"/> Roll crimping<br>                       | <input type="checkbox"/> Indent crimping<br>        |
| <input type="checkbox"/> Special trapezoid crimping<br> | <input type="checkbox"/> Square crimping<br>                     | <input type="checkbox"/> Oval crimping<br>          |
| <input type="checkbox"/> Pour point crimping<br>        | <input type="checkbox"/> Trapezoid crimping<br>                  | <input type="checkbox"/> Indent crimping<br>        |
| <input type="checkbox"/> Quad-point indent crimping<br> | <input type="checkbox"/> Indent crimping (cable end-sleeves)<br> |  |

Other: .....

**Dimensions: Please fill in all data! If no information is available, the general Klauke dimensions apply.**

Date: .....

Signature (customer): .....

### Assignment of conductor cross sections (AWG or MCM sizes to mm<sup>2</sup>)

AWG	Metric conductor cross-section mm <sup>2</sup>	Comparable conductor cross-section mm <sup>2</sup>	MCM	Metric conductor cross-section mm <sup>2</sup>	Comparable conductor cross-section mm <sup>2</sup>
27	0.102	–	250	127	120
26	0.128	0.14	300	152	150
25	0.163	–	350	177	185
24	0.205	0.2	400	203	–
23	0.259	0.25	500	253	240
22	0.325	0.34	600	304	300
21	0.412	–	700	355	–
20	0.519	0.5	800	405	400
19	0.653	–	900	456	–
18	0.823	0.75	1000	507	500
17	1.04	1	1250	633	625
16	1.31	–	1500	760	800
15	1.65	1.5	1750	887	–
14	2.08	–	2000	1010	1000
13	2.63	2.5			
12	3.31	–			
11	4.15	4			
10	5.27	6			
9	6.62	–			
8	8.35	–			
7	10.6	10			
6	13.3	–			
5	16.8	16			
4	21.2	–			
3	26.7	25			
2	33.6	35			
1	42.4	–			
1/0	53.4	50			
2/0	67.5	70			
3/0	85	95			
4/0	107.2	120			

### British and American units of measurement

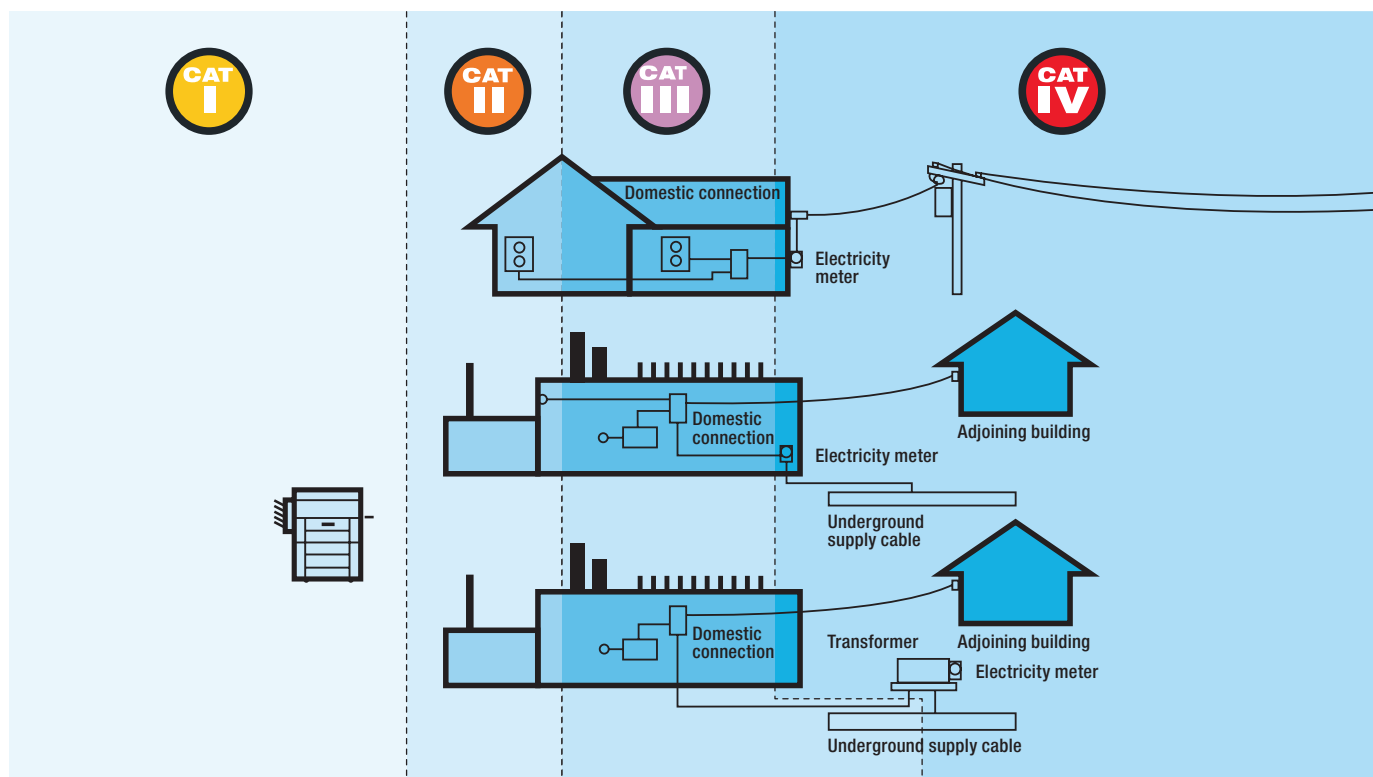
Length units		Area units		Volume units		Fluid volume units		Weight	
1 mil	0.0254 mm	1 sq. in.	645.1 mm <sup>2</sup>	1 cu. in.	16.386 cm <sup>3</sup>	1 pint	0.568 l	1 grain	0.059 g
1 inch (Zoll)	25.4 mm	1 sq. ft.	0.093 m <sup>2</sup>	1 cu. Ft.	0.028 m <sup>3</sup>	1 quart	1.136 l	1 ounce	28.349 g
1 foot	0.3048 m	1 sq. yd.	0.836 m <sup>2</sup>	1 cu. Yd.	0.764 m <sup>3</sup>	1 engl. gallon	4.554 l	1 pound (lb)	0.454 kg
1 yard	0.9140 m					1 am gallon	3.785 l	1 engl. ton	1.016 t
1 mile	1.6090 km					1 quarter	290.790 l	1 am. ton	0.907 t
						1 bushel	36.350 l		



## Cable pulling technology – Typical applications

Type	Tape diameter	Tube diameter	Pressure energy	Min. curve radius	Breaking strength	Tensile force with start/end sleeve	Recommended length
	ø mm	ø mm	kg	mm	kg	kg	m
Speedy Spinner	3	16 - 32	+++	160	400	110	20-30 (+ 2-3)
Dura Spinner	3.6	16 - 32	+++	100	250	140	10 - 30
Flexi Spinner	4.5	16 - 32	+++	100	250	140	10-25
Smart Butler	4.5	40 - 60	+++	310	1200	>200	40-60 (+ 3-5)
Smart Butler	6	50 - 80	+++	400	2000	>300	40-80 (2-3)
Smart Butler	7.5	63 - 100	+++	500	3000	>400	20-30 (+ 3-5)
	9	63 - 125	+++	620	4500	>500	20-30 (+ 3-5)
	11	63 - 150	+++	770	7500	>700	150-250 (+ 3-5)
Polyester	4.5	16 - 32	+++	100	250	140	10-25
Nylon, Perlon®	4	16 - 25	+	80	280	120	10-20
Steel	4	16 - 25	+	100	900	115	10-20

for trade     for industry





## Measuring categories

Protective values which greatly exceed the nominal capacity of a system are stipulated in the standards of the IEC categories. Without this additional protection, transient overvoltages which occur with increasing regularity may cause serious or fatal injuries.

### Measurement Category I

is the signal level for telecommunications and electronic equipment.

### Measurement Category II

is the local level for permanently connected devices or devices not operated by means of a fixed connection - including all types of illumination from household devices to office equipment such as copy machines. Can also be used in Category I ranges.

### Measurement Category III

is the distribution level for fixed main or bypass flow circuits. These electric circuits are usually separated by at least one level of transformer barrier of Category IV (public utility or other high-voltage power source). Can also be used in Category II and Category I ranges.

## Measurement Category IV

is the main electric supply level. Greenlee is setting new standards by offering equipment that meets the highest protective values of IEC standards and which are certified accordingly. Can be used in all category ranges.

**Greenlee equipment** – checked and certified for compliance with norms by an independent party. This catalogue states the category for many Greenlee devices, indicating that these devices comply with the various IEC categories (II, III or IV). All these references represent the categories confirmed in tests by independent testing organisations – giving you additional assurance.

**The right type of protection for the task at hand.** No matter where you may need overvoltage protection – select a device which has at least the nominal capacity suitable for the work you are carrying out.



#### Elektronics

- lectronic equipment
- Equipment with low current usage and surge voltage limit protection



#### Domestic appliances, computers, televisions

- Wall outlets and long bypass flow circuits
- All wall outlets which are distant more than 10 m from a Category III source
- All wall outlets which are distant more than 20 m from a Category VI source



#### MC switch panel etc.

- Feeds and short bypass current circuits
- Distributor panels
- Wall outlets for large devices with “short” connections to the domestic connection



#### Outdoor transformers, electricity meters etc.

- Outdoor and domestic connection
- Supply line from the utility pole to the building
- Overhead line to the free-standing building
- Underground line to well pump



## Metric cable glands for electrical installation EN 50262

The new European standard EN 50262 defines conditions for all manufacturers of electrical appliance housings and all electrical installation.

It's scope includes cables and conductors for control cabinets, distributor housings, junction boxes, domestic connections, installation boxes, equipment housings etc.

EN 50262 replaces the Pg thread (steel tank pipe thread) used for all housing designs for decades with a metric thread. Sizes Pg 7 to Pg 48 are being replaced by ISO M 6 to M75.








### Greenlee holemaking tools in ISO sizes acc. to EN 50262

ISO sizes	mm	Slug-Buster® punch	Slug-Splitter® punch	HSS hole saws	Step bits
12	12.5	✓			
16	16.5	✓	✓		✓
20	20.5	✓	✓	✓	✓
25	25.5	✓	✓	✓	✓
32	32.5	✓	✓		✓
40	40.5	✓	✓		✓
50	50.5	✓	✓	✓	
63	63.5	✓	✓	✓	

## Holemaking systems

Round punch	Operation	Capacity	Hole size
Slug-Buster®	Manual, Hydraulic punches	max. 3.0 mm in St 37	12.5 to 64.0 mm
Slug-Splitter®	Hydraulic punches	max. 3.5 mm in V2A	15.2 to 64.0 mm
Speed Punch™	Hydraulic punches	3.5 mm in St 37	16.2 to 64.0 mm
Standard	Manual, Hydraulic punches	max. 3.0 mm in St 37	66.7 to 144.1 mm
Special shaped punches	Operation	Capacity	Hole size
Special shaped punches	Manual, Hydraulic punches	max. 3.0 mm in St 37 bzw. 1.5 mm in V2A	See data for the individual punches

## Hydraulic punches

			Description
	LS 50 FLEX Battery powered hydraulic punching tool	LS 50 FLEX	- with micro-processor control - 60 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	LS 60-L Battery powered hydraulic punching tool	LS60L	- with micro-processor control - 60 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch Quick Draw™ 7804E	50342916	- ideal for fast, frontal punching - 80 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch Quick Draw 90™ 7904E	50342991	- rectangular cylinder head rotatable around 180° - maximum flexibility in narrow working spaces - 80 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch with hand pump	50159062	- compact design of punch, pump and cylinder - 110 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hydraulic punch with foot pump	50250973	- foot pump leaves both hands free for operating the punch - 110 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size
	Hand hydraulic punch Flex Draw	52033843	- rectangular cylinder head rotatable around 180° - maximum flexibility in narrow working spaces - 80 kN punching force - punches up to 3.0 mm St 37 and up to 3.5 mm V2A, depending on hole size

## Standards for cabling

A number of standardisation committees that define the technical features of cabling systems have been in existence since 1993. These directives must be observed when planning and setting up networks.

Full volumes can be obtained from specialist bookshops.

## International standards

International Standards are published by the ISO (International Standards Organisation). In Europe these international directives are used for information purposes.

<b>ISO/IEC IS 11801</b>	Description of the performance requirements for a general cabling system	<b>IEC 1156-1</b>	Basic specification
<b>IEC 1156</b>	Multi-core and symmetrical conductors for digital message transmission	<b>IEC 1156-2</b>	Framework specification for service cables IEC1156-3 Framework specification for patch and equipment connecting cables
		<b>IEC 1156-4</b>	Framework specification for building connecting and rising cables

## European standards

In collaboration with national standard institutes, the European Committee for Electrical Standardisation CENELEC (Comite Europeen de Normalisation Electrotechnique) has published European standards that are based on the international ISO/IEC 11801 and hence normative for Europe.

<b>EN 50173</b>	Description of the performance requirements for a general cabling system (EN 50173 also refers to HD 608 and also EN 55022)	<b>EN 50168</b>	Framework specification for patch and equipment connecting cables
<b>608</b>	General specification for symmetrical conductors for digital message transmission	<b>EN 50169</b>	Framework specification for building connection and rising cables
<b>EN 50167</b>	Framework specification for service cables	<b>EN 55022</b>	Framework specification for electromagnetic compatibility (EMC). This specification contains threshold values and measuring procedures for radio interference of data processing equipment.

## American standards

The American standards are published by the EINTIA (Electronic Industries Association / Telecommunication Industries Association) an American Joint Venture.

<b>TSB 36</b>	Framework specification for symmetrical data cables (100 Ohm, unsheathed)	<b>EIA/TIA 568</b>	Framework specification for cabling systems
<b>TSB 40</b>	Framework specification for passive components (100 Ohm, unsheathed)		



Keyword	Page
<b>A</b>	
Accessory (cable pulling technology)	572
Assortments (electrical connection system)	178
Assortments and sets (VDE tools)	512
Assortments and sets (standard tools)	532
Accessories for hydraulic tools	491
Adapters	530
Aluminium compression joints acc. to DIN 46267 part 2 and similar versions	97
Aluminium compression cable lugs and connectors acc. to DIN	92
Aluminium compression cable lugs acc. to DIN 46329 and similar versions	94
Aluminium compression cable lugs and connectors for Al/St cables DIN EN 50182	102
Aluminium compression joints, full tension	101
Aluminium/copper compression cable lugs	108
Aluminium/copper compression joints	111
Aluminium/copper compression cable lugs and connectors	106
Aluminium reduction compression joints	99
Angle compression cable lugs	58
Angle tubular cable lugs	17
Assortment boxes with cable end-sleeves	185
Assortment boxes with insulated cable-end sleeves	186
Assortment boxes with insulated terminals	190
Assortment boxes with tubular and compression cable lugs	189
<b>B</b>	
Basic tools (hand tools)	537
Battery powered punching tool LS 50 Flex	439
Battery powered punching tool LS 60-L	438
Battery powered crimping tool	257
Battery powered crimping tool 10.8 V - base	257
Battery powered crimping tool 18 V - base	264
Battery powered cutting tool 10.8 V - base	371
Battery powered cutting tool 18 V - base	374
Battery powered cutting tools	370
Battery powered universal tools	288, 393, 440, 475
Bi-metallic washer	114
Bits	530
Bits and step bits (punching)	464
Bus bar tool centre	479
<b>C</b>	
C- and H-shaped clamps - copper	122
Cable and conductor identifiers	606
Cable connections, insulated and non insulated	154
Cable end-sleeves	136
Cable end-sleeves DIN 46228, part 1 and part 2	138
Cable puller	568
Cable pulling systems	562
Cable puller with accessory	568
Clamps and screw connectors	116
Compact tab connectors, high resistant aluminium alloy	130
Compression cable lugs acc. to DIN 46235	56
Compression cable lugs, special type	62
Compression joints acc. to DIN 46267, part 1 and similar versions	64
Connectors	21
Copper compression cable lugs and connectors acc. to DIN	54
Copper terminals, connectors and pin terminals acc. to DIN	72
Copper tubular cable lugs and connectors	10
Crimping dies	324
Crimping dies Series 4	328

Keyword	Page
Crimping dies Series 5	333
Crimping dies Series 13	347
Crimping dies Series 15	352
Crimping dies Series 18	337
Crimping dies Series 22	341
Crimping dies Series 25	353
Crimping dies Series 45	358
Crimping dies Series 50	326
Crimping dies Series 100	359
Cutting dies	412
<b>D</b>	
Digital clamp meters	588
Digital multimeter	580
DIN rail cutting tools	411
Dura Spinner (cable pulling system)	562
<b>E</b>	
Easy Roller (cable drum unwinder)	568
Electromechanical crimping tool	253
Electronic mechanic's tools	529
<b>F</b>	
Fibreglass cable pulling rods	561
Fibreglass tapes (Speedy Spinner)	563
Fish tapes/pulling rods	560
Fish tapes in winder case	564
Fitting pliers	528
Flex-O-Twist speed flex leader	561
Flexible connectors	172
Flexi-Spinner (cable pulling system)	562
Fully insulated tools	521
<b>H</b>	
Hand-operated hydraulic crimping tools	291
Hand-operated hydraulic cutting tools	396
Hand-operated hydraulic universal tool	472
Holders	530
Hole saws	456
HSS bi-metal hole saws	458
Hydraulic crimping heads	306
Hydraulic crimping heads and crimping systems	305
Hydraulic crimping systems	320
Hydraulic cutting heads	400
Hydraulic cutting heads and cutting systems	399
Hydraulic cutting systems	404
Hydraulic pumps	484
Hydraulic punching tools	436
Hydraulic universal head	472
<b>I</b>	
Insulated solderless terminals for meter connections	80
Insulated cable-end sleeves acc. to DIN 46228, part 4 and similar versions	141
Insulated cable end-sleeves for short circuit resistant conductors	146
Insulated cable-end sleeves, strips and tapes	148
Insulated solderless terminals	76
Insulated terminals	156
Insulated tubular cable lugs und connectors	25
Insulated twin cable-end sleeves	147

Keyword	Page
<b>L</b>	
L-BOXXes	198
<b>M</b>	
Mechanical crimping tools	208, 210
Mechanical crimping tools with interchangeable dies	240
Mechanical cutting tools	362
Mechanical punching tools	436
Measuring and marking	535
<b>N</b>	
Non insulated flat connectors	167
Nylon (fish tapes)	560
<b>P</b>	
Parallel groove clamps - copper	120
Perlon (fish tapes)	560
Pliers	504
Pocket boxes with cable end-sleeves	180
Pocket boxes with insulated cable end-sleeves	180
Polyester (fish tapes)	560
Precision mechanic's tools	529
Pulling grips	570
Pulling grips, closed	570
Pulling grips, open	571
Pumps	482
Punched cable lugs - copper	118
Punching tools and sets	434
<b>R</b>	
Round and special shape punches	416
<b>S</b>	
Safety cutting tools	406
Safety tools	516
Screwdrivers	508
Screw connector for shielded copper wires	124
Screw connectors for street lighting - brass	124
Screw connectors with soldering hole - brass	119
Screw connectors, high-resistant aluminium alloy	125
Sleeves for compacted conductors and sector-shaped conductors - copper	86
Slug Buster® punch sets	447
Slug Buster® punch systems	420
Slug Buster® punching tools and sets	452
Slug-Splitter® punch sets	451
Slug-Splitter® punch system for stainless steel	421
Smart Butler	566
Solderless connectors acc. to DIN 46341, part 1	80
Solderless terminals acc. to DIN 46234	74
Solderless terminals, fork and pin type	78
Special cutting tools	410
Speed Nut	436
Speed-Punch™ punch sets	449
Speed-Punch™ punch system	422
Speedy Spinner (cable pulling system)	563
Special shape punches	425
Standard punch systems	418
Standard tools and accessory (hand tools)	527
Steel (fish tapes)	561

Keyword	Page
Steel carrying cases / bags	193
Step bits	464
Stripping tools	552
<b>T</b>	
Temperature measuring devices	594
Tool cases	526, 541
Tubular cable lugs	10
Tubular cable lugs and compression joints for solid conductors	30
Tubular cable lugs and connectors - nickel	50
Tubular cable lugs and connectors - nickel, stainless steel	46
Tubular cable lugs and connectors - stainless steel	48
Tubular cable lugs and connectors for fine stranded conductors	33
Tubular cable lugs and connectors, blue connection®	28
Tubular cable lugs for switchgear connections	16
<b>V</b>	
VDE-battery powered crimping and cutting tools Orange Line	205-3
VDE-battery powered crimping tools Orange Line	205-5
VDE-battery powered cutting tools Orange Line	205-8
VDE tools	502
Voltage testers	576
<b>W</b>	
Water pump pliers	528
Wiring duct cutter	412
Wire stripping tools	548, 549



# Technical Appendix

## Alphanumerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
101R5	56	110R12	57	133R	64	1620C35	78
101R6	56	110R14	57	134R	64	1620C4	78
101R8	56	110R16	57	135R	64	1620C5	78
1020	159	110R20	57	136DP12	63	1620C6	78
1020V	160	111R10	57	136DP212	63	1620K	80
102R5	56	111R12	57	136R	64	1620L	81
102R6	56	111R14	57	137DP12	63	162R	22
102R8	56	111R16	57	137DP212	63	162R5	58
1030	159	111R20	57	137R	64	162R545	60
1030V	160	112R12	57	138DP12	63	162R6	58
103R10	56	112R14	57	138DP212	63	162R645	60
103R12	56	112R16	57	138R	64	162R8	58
103R6	56	112R20	57	139DP12	63	162R845	60
103R8	56	1130	164	139DP212	63	163010	74
104R10	56	113R14	57	13R12	15	163012	74
104R12	56	113R16	57	13R14	15	16303	74
104R6	56	113R20	57	13R16	15	163035	74
104R8	56	114R14	57	13R20	15	16304	74
1050	159	114R16	57	13SG10	16	16305	74
1050V	160	114R20	57	13SG12	16	16306	74
105R10	56	1150	164	13SG16	16	16308	74
105R12	56	115R16	57	147D212	62	1630C3	78
105R14	56	115R20	57	148D212	62	1630C35	78
105R6	56	116R16	57	148R	22	1630C4	78
105R8	56	116R20	57	149D212	62	1630C5	78
106R10	57	117R16	57	149R	22	1630C6	78
106R12	57	117R20	57	14R12	15	1630K	80
106R14	57	118R16	57	14R14	15	1630L	81
106R16	57	118R20	57	14R16	15	163R	22
106R8	57	11R10	15	14R20	15	163R10	58
107R10	57	11R12	15	150B	29	163R1045	60
107R12	57	11R14	15	150B10	29	163R12	58
107R14	57	11R16	15	150B12	29	163R1245	60
107R16	57	11R20	15	150D212	62	163R6	58
107R8	57	11SG10	16	150R	22	163R645	60
108R10	57	11SG12	16	151D212	62	163R8	58
108R12	57	11SG16	16	151R	22	163R845	60
108R14	57	120B	29	152D212	62	164R10	58
108R16	57	120B10	29	152R	22	164R1045	60
108R8	57	120B12	29	153R	22	164R12	58
109R10	57	120B16	29	154R	22	164R1245	60
109R12	57	121R	64	155R	22	164R6	58
109R14	57	122R	64	156R	22	164R645	60
109R16	57	123R	64	157R	22	164R8	58
109R20	57	124R	64	158R	22	164R845	60
10B	29	125R	64	159R	22	165010	74
10B10	28	126R	64	160R	22	165012	74
10B5	28	127R	64	161R	22	16504	74
10B6	28	128R	64	161R5	58	16505	74
10B8	28	129R	64	161R545	60	16506	74
10R10	15	12R10	15	161R6	58	16508	74
10R12	15	12R12	15	161R645	60	1650C4	78
10R14	15	12R14	15	162010	74	1650C5	78
10R16	15	12R16	15	162025	74	1650C6	78
10R20	15	12R20	15	16203	74	1650C8	78
10R8	15	12SG10	16	162035	74	1650K	80
10SG10	16	12SG12	16	16204	74	1650L	81
10SG12	16	12SG16	16	16205	74	165210	74
10SG6	16	130R	64	16206	74	165212	74
10SG8	16	131R	64	16208	74	16525	74
110R10	57	132R	64	1620C3	78	16526	74



Part No.	Page
16528	74
1652C5	78
1652C6	78
1652K	80
1652L	81
165310	74
165312	74
16535	74
16536	74
16538	74
1653C6	78
1653C8	78
1653K	80
1653L	81
165410	75
165412	75
165416	75
16545	75
16546	75
16548	75
1654K	80
1654L	81
165510	75
165512	75
165516	75
16556	75
16558	75
1655K	80
1655L	81
165610	75
165612	75
165616	75
16566	75
16568	75
1656K	80
1656L	81
165710	75
165712	75
165716	75
16576	75
16578	75
1657K	80
1657L	81
165810	75
165812	75
165816	75
16588	75
1658K	80
1658L	81
165910	75
165912	75
165916	75
16598	75
1659K	80
1659L	81
165R10	58
165R1045	60
165R12	58
165R1245	60
165R14	58
165R1445	60

Part No.	Page
165R8	58
165R845	60
166010	75
166012	75
166016	75
1660K	80
1660L	81
166112	75
166116	75
166212	75
166216	75
1666	144
1668	144
166GR	142
166GRL	142
166R10	58
166R1045	60
166R12	58
166R1245	60
166R14	58
166R1445	60
166R16	58
166R1645	60
166R8	58
166R845	60
1676	144
1678	144
167H	142
167HL	142
167R10	59
167R1045	61
167R12	59
167R1245	61
167R14	59
167R1445	61
167R16	59
167R1645	61
167R8	59
167R845	61
1686	144
1688	144
168R10	59
168R1045	61
168R12	59
168R1245	61
168R14	59
168R1445	61
168R16	59
168R1645	61
168T	142
168TL	142
1696	144
1698	144
1690	142
1690H	142
1690K	142
169R10	59
169R1045	61
169R12	59
169R1245	61
169R14	59

Part No.	Page
169R1445	61
169R16	59
169R1645	61
169R20	59
169R2045	61
16B	29
16B10	28
16B12	28
16B6	28
16B8	28
1706	144
1708	144
170R10	59
170R1045	61
170R12	59
170R1245	61
170R14	59
170R1445	61
170R16	59
170R1645	61
170R20	59
170R2045	61
170W	143
170WH	143
170WK	143
170WL	143
1716	144
1718	144
171G	143
171GH	143
171GK	143
171GL	143
171R10	59
171R1045	61
171R12	59
171R1245	61
171R14	59
171R1445	61
171R16	59
171R1645	61
171R20	59
171R2045	61
1720	167
17210	144
17212	144
17218	144
1726	144
1728	144
172R12	59
172R1245	61
172R14	59
172R1445	61
172R16	59
172R1645	61
172R20	59
172R2045	61
172RH	143
172RK	143
172RL	143
172RM	143
172RO	143

Part No.	Page
1730	167
1730AZ	167
17312	144
17318	144
1738	144
173B	143
173BH	143
173BL	143
17410	144
17412	144
17418	144
174GR	143
174GRH	143
174GRL	143
1750	167
17512	144
17518	144
175S	143
175SL	143
17612	145
17618	145
176E	143
176EL	143
17712	145
17718	145
177GR	143
177GRL	143
17816	145
17818	145
17822	145
178BR	143
178BRL	143
179B	143
179BL	143
17R	21
1800	143
1800L	143
181R	67
18201A	167
18202	167
18203	167
18203AZ	167
18251	167
18251A	167
182R	67
1830	169
18303	167
18303AZ	167
183R	67
184R	67
185B	29
185B10	29
185B12	29
185B16	29
185R	67
186R	67
187R	67
188R	67
189R	67
18R	21
190R	67



# Technical Appendix

## Alphanumerical Index

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
191R	67	222R	97	270R10	94	2R5	14
192R	67	2230	169	270R12	95	2R6	14
193R	67	2235	169	270R16	95	2R8	14
19R	21	223R	97	270R20	95	300B	29
1R10	14	224R	97	271R10	95	300B12	29
1R12	14	2250	169	271R12	95	300B16	29
1R5	14	225R	97	271R16	95	302R6	109
1R6	14	226R	97	271R20	95	302R8	109
1R8	14	227R	97	2720	168	303R10	109
2010	171	228R	97	272R10	95	303R8	109
2020	171	229R	97	272R12	95	304R10	109
2025	171	22R	21	272R16	95	304R8	109
202R6	96	230R	97	272R20	95	305R10	109
202R8	96	231R	97	2730	168	305R12	109
2030	171	232R	97	273R12	95	306R10	109
2035	171	233R	97	273R16	95	306R12	109
203R10	96	234R	97	273R20	95	307R10	109
203R8	96	235R	97	274R12	95	307R12	110
2040	170	23R	21	274R16	95	308R10	110
2045	170	240B	29	274R20	95	308R12	110
204R10	96	240B12	29	2750	168	308R16	110
204R8	96	240B16	29	2755	169	309R12	110
205R10	96	243R	101	275R12	95	309R16	110
205R12	96	244R	101	275R16	95	30R	21
2060	170	245R	101	275R20	95	310R12	110
206R10	96	246R	101	2760	169	310R16	110
206R12	96	247R	101	2770	170	310R20	110
2070	170	248R	101	2775	170	311R12	110
2075	170	249R	101	2780	170	311R16	110
207R10	96	24R	21	2785	170	311R20	110
207R12	96	250R	101	2790	170	312R12	110
2080	170	251R	101	27R	21	312R16	110
2083	170	252R	101	284R16	100	312R20	110
208R10	96	253R	101	285R25	100	313R16	110
208R12	96	25B	29	286R25	100	313R20	110
208R16	96	25B10	28	286R35	100	314R16	110
2090	170	25B12	28	287R25	100	314R20	110
209R12	96	25B6	28	287R35	100	31R	21
209R16	96	25B8	28	287R50	100	322R10	111
20R	21	25R	21	288R25	100	322R16	111
2100	170	263R10	94	288R35	100	323R10	111
2105	170	263R8	94	288R50	100	323R16	111
210R12	96	264R10	94	288R70	100	324R10	111
210R16	96	264R12	94	289R50	100	324R16	111
210R20	96	264R8	94	289R70	100	324R25	111
2115	170	265R10	94	289R95	100	324R35	111
211R12	96	265R12	94	28R	21	324R416	111
211R16	96	265R8	94	290R120	100	324R425	111
211R20	96	266R10	94	290R70	100	324R50	111
2123	171	266R12	94	290R95	100	325R16	111
212R12	96	266R8	94	291R120	100	325R25	111
212R16	96	267R10	94	291R150	100	325R35	111
212R20	96	267R12	94	292R120	100	325R50	111
213R16	96	267R8	94	292R150	100	325R616	111
213R20	96	268R10	94	292R95	100	325R625	111
2140	171	268R12	94	295AD	102	325R635	111
2145	171	268R16	94	296AD	102	326R16	111
214R16	96	269R10	94	297AD	102	326R25	111
214R20	96	269R12	94	29R	21	326R35	111
21R	21	269R16	94	2R10	14	326R50	111
2220	169	26R	21	2R12	14	327R120	112



Part No.	Page
327R16	111
327R25	112
327R35	112
327R50	112
327R70	112
327R95	112
328R120	112
328R16	112
328R25	112
328R35	112
328R50	112
328R70	112
328R95	112
329R120	112
329R35	112
329R50	112
329R70	112
329R95	112
32R	21
330R120	112
330R150	112
330R16	112
330R25	112
330R35	112
330R50	112
330R70	112
330R95	112
331R120	112
331R150	112
331R185	112
331R50	112
331R70	112
331R95	112
332R120	112
332R150	112
332R185	112
332R240	112
332R50	112
332R70	112
332R95	112
333R120	112
333R150	112
333R185	112
333R240	112
333R300	112
33R	21
344R	113
345R	113
346R	113
347R	113
348R	113
349R	113
34R	21
350R	113
351R	113
352R	113
353R	113
35B	29
35B10	28
35B12	28
35B8	28

Part No.	Page
363R10	108
363R8	108
364R10	108
364R12	108
364R8	108
365R10	108
365R12	108
365R8	108
366R10	108
366R12	108
366R8	108
367R10	108
367R12	108
368R10	108
368R12	108
368R16	108
3698	145
369R12	108
369R16	108
3708	145
370R12	108
370R16	108
370R20	108
3718	145
371R10	108
371R12	108
371R16	108
371R20	109
3720	168
3725	168
3728	145
372R10	109
372R12	109
372R16	109
372R20	109
3735	168
3738	145
373R12	109
373R16	109
373R20	109
374R12	109
380/-	146
380/+	146
380/0 bis 9	146
380/A bis Z	146
3R10	14
3R12	14
3R5	14
3R6	14
3R8	14
405R	98
406R	98
407R	98
408R	98
409R	98
410R	98
411R	98
412R	98
413R	98
414R	98
415R	98

Part No.	Page
416R	98
417R	98
418R	98
419R	98
41R10	17
41R1045	19
41R12	17
41R1245	19
41R5	17
41R545	19
41R6	17
41R645	19
41R8	17
41R845	19
420R	98
421R	98
422R	98
423R	98
424R	98
425R25	99
426R35	99
427R35	99
427R50	99
428R50	99
428R70	99
429R70	99
429R95	99
42R10	17
42R1045	19
42R12	17
42R1245	19
42R5	17
42R545	19
42R6	17
42R645	19
42R8	17
42R845	19
430R120	99
430R70	99
430R95	99
431R120	99
431R150	99
431R70	99
431R95	99
43210	146
4328	146
432R120	99
432R150	99
432R185	99
43312	146
4338	146
433R150	99
433R185	99
433R240	99
43410	146
434R300	99
43512	146
43612	146
43712	146
43R10	17
43R1045	19

Part No.	Page
43R12	17
43R1245	19
43R5	17
43R545	19
43R6	17
43R645	19
43R8	17
43R845	19
44R10	17
44R1045	19
44R12	17
44R1245	19
44R14	17
44R1445	19
44R5	17
44R545	19
44R6	17
44R645	19
44R8	17
44R845	19
455R	102
456R	102
457R	102
458R	102
459R	102
45R10	17
45R1045	19
45R12	17
45R1245	19
45R14	17
45R1445	19
45R16	17
45R1645	19
45R6	17
45R645	19
45R8	17
45R845	19
46910	141
4696	141
4698	141
46R10	18
46R1045	20
46R12	18
46R1245	20
46R14	18
46R1445	20
46R16	18
46R1645	20
46R20	18
46R2045	20
46R6	18
46R645	20
46R8	18
46R845	20
47010	141
47012	141
4706	141
4708	141
47110	141
47112	141
4716	141





Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
4718	141	49R1445	20	50042475	419	50063634	419
47210	141	49R16	18	50042483	419	50065866	418
47212	141	49R1645	20	50042491	419	50065874	418
47218	141	49R20	18	50042505	419	50067273	420
4726	141	49R2045	20	50042513	419	50067281	420
4728	141	49R8	18	50042521	419	50067290	420
47312	141	49R845	20	50042564	419	50068920SET	454
47318	141	4R10	14	50042572	419	50069292	462
4738	141	4R12	14	50042580	419	50069497SET	460
47410	141	4R14	14	50042599	419	50069519	421
47412	141	4R5	14	50045989	421	50069527	421
47418	141	4R6	14	50045997	421	50069535	421
47512	141	4R8	14	50046012	421	50069543	421
47518	141	50000420	423	50046020	421	50069551	421
47612	141	50008722	569	50046039	421	50069560	421
47618	141	50008730	569	50046055	421	50069578	421
47712	142	50008749	569	50046071	421	50069586	421
47718	142	50016962	565	50046080	421	50069594	421
47816	142	50024086	418	50046098	421	50069608	421
47818	142	50024094	418	50046110	421	50069616	421
47822	142	50024337	418	50046136	421	50069624	421
47916	142	50024434	419	50046144	421	50069632	421
47918	142	50024450	419	50046381	425-428, 430	50069640	421
47925	142	50031708	424	50046527	419	50069659	421
47R10	18	50039865	418	50046535	419	50069667	421
47R1045	20	50039903	418	50046543	419	50069691	462
47R12	18	50039911	418	50046551	419	50069780	419
47R1245	20	50040022	418	50046799	423	50069845	467
47R14	18	50040103	418	50046853	419	50069853	467
47R1445	20	50040111	418, 420	50046861	419	50069861	467
47R16	18	50040138	419, 420	50047345	418	50069870	467
47R1645	20	50040405	423	50047353	418	50069888	467
47R20	18	50040421	423	50047361	418	50069900	468
47R2045	20	50040588	419	50052110	447	50069969	418
47R6	18	50040596	419	50052128	479	50069977	419
47R645	20	50040618	419, 420	50052144	481	50070444	418
47R8	18	50040626	419	50052152	481	50075357	587
47R845	20	50040634	419, 420	50052160	481	50075365	593
48020	142	50041754	419	50052241	479	50075926	596
48025	142	50041770	419	50052250	479	50115286	480
48121	142	50041800	419	50052276	480	50115294	480
48225	142	50041835	419	50052284	480	50115308	480
48327	142	50041878	419	50052292	480	50115316	480
48432	142	50041886	423	50052306	480	50115324	480
48R10	18	50042181	423	50052314	480	50115332	480
48R1045	20	50042238	418	50052322	480	50115340	480
48R12	18	50042246	418	50052330	480	50115359	480
48R1245	20	50042254	418	50052357	480	50115367	480
48R14	18	50042262	418	50052373	480	50115375	480
48R1445	20	50042297	418	50052381	480	50115383	480
48R16	18	50042300	418	50052446	425, 426, 428, 429	50115391	480
48R1645	20	50042327	419	50052659	419	50115413	411
48R20	18	50042335	419	50052667	419	50115472	444
48R2045	20	50042343	419	50053027	429	50115723	426
48R8	18	50042351	418	50053035	429	50116304	468
48R845	20	50042378	418	50053043	432	50116894v2	582
49R10	18	50042386	418	50053051	429	50125630SET	461
49R1045	20	50042408	418	50053078	429	50125700	412
49R12	18	50042424	418	50054473	419	50132849	490
49R1245	20	50042459	419	50054481	419	50153323	569
49R14	18	50042467	419	50063626	419	50159062	443



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
50159119	445	50253603	419	50310143	570	50341383	568
50176870	419	50253611	419	50310240	571	50342916	436
50176900	419	50253727	419	50310267	571	50342991	437
50176978	418	50253832	419	50310283	571	50343629	568
50177001	418	50254030	419	50310305	571	50344013	466
50183311	418	50254278	418	50310321	571	50344030	466
50186353	419	50254286	418	50311174	421	50344102	466
50188860	418	50265342	436	50311190	421	50344110	466
50188879	418	50273612	446	50311204	421	50344200	430
50188909	418	50273833	569	50311220	421	50344218	428
50188917	419	50273841	569	50311239	421	50344293	430
50188925	419	50273868	569	50311247	421	50344366	430
50189050	419	50273884	569	50311255	421	50344374	430
50189069	419	50273892	569	50311263	421	50344447	430
50190946	569	50273906	569	50311280	421	50347330	425-430
50191314	458	50281542	421	50311298	421	50351583	420
50191772	459	50281550	421	50311310	421	50351591	418, 420
50191780	459	50281569	421	50311328	421	50351605	420
50191799	459	50281577	421	50311336	421	50351613	419, 420
50191802	459	50281585	421	50311352	421	50351621	418, 420
50191810	459	50281593	421	50313533	490	50351630	420
50191829	459	50281607	421	50314823	571	50351648	418, 420
50191837	459	50281615	421	50314831	571	50351656	420
50191845	459	50281623	421	50314840	571	50351664	420
50199757	419	50281631	421	50317563	420	50351680	418, 420
50199765	419	50281658	421	50317571	420	50351699	420
50199773	419	50281666	421	50317580	420	50351770	420
50199781	419	50292099SET	460	50317598	420	50351788	420
50199803	419	50294512	424	50317601	420	50351796	420
50206672	418	50294520	424	50317610	420	50351800	420
50206680	418	50300083	466	50318721	424	50351818	420
50206702	418	50305581	570	50319620	420	50351826	420
50206710	418	50305603	570	50319639	420	50351923	418
50206737	418	50305620	570	50319647	420	50351931	418
50206761	419	50305646	570	50319655	420	50352075	572
50206788	419	50305662	570	50319663	420	50352083	572
50206796	419	50305689	570	50319671	420	50356119SET	452
50211153	418	50305700	570	50319698	420	50356143SET	453
50212141	419	50305727	570	50319701	420	50356151SET	452
50212168	419	50305743	570	50319710	420	50356160SET	453
50213164	418	50305760	570	50319736	420	50356178SET	454
50214896	419	50305786	570	50319752	420	50357468	565
50214918	419	50305808	570	50319787	420	50357476	565
50215191	419	50305824	570	50319892	420	50360183	466
50225634	418	50305840	570	50319906	420	50360205	466
50225642	418	50305867	570	50319914	420	50360221	466
50225650	418	50305883	570	50319930	420	50361716	420
50225669	419	50305905	570	50319957	420	50361724	420
50225677	419	50305921	570	50319965	420	50361732	419, 420
50225685	419	50305948	570	50319981	420	50362780	420
50244590	418	50305964	570	50320025	418	50362798	418, 420
50244620	418	50306588	571	50320033	418, 420	50362828	418
50244760	418	50306600	571	50320041	418, 420	50362844	420
50244779	418	50306626	571	50320068	418, 420	50364022	466
50250973	444	50306642	571	50320084	418, 420	50364146	466
50253417	418	50306669	571	50320114	419, 420	50364898	421
50253425	418	50306685	571	50323989SET	455	50364901	421
50253441	418	50307584	571	50328034SET	455	50365061	418
50253492	419	50308599	561	50339672	424	50365088	420
50253506	419	50310100	570	50341367	568	50366904	448
50253514	419	50310127	570	50341375	568	50366912	449



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
50366920	447	50600591	425	50610861	428	51R1045	20
50366939	448	50600605	425	50610892	428	51R12	18
50368826	418	50600613	425	50610922	428	51R1245	20
50369105	418	50600621	425	50610953	428	51R14	18
50371541	462	50600630	425	50611257	427	51R1445	20
50371550	462	50600648	425	50611264	427	51R16	18
50371568	462	50600656	425	506R	66	51R1645	20
50371576	462	50600664	425	506RLD	66	51R20	18
50377299	498	50600672	425	50766797	451	51R2045	20
50381721	418, 419	50600680	425	50766803	451	52020113	432
50383167	498	50600699	425	50766919	480	52024541	604
50385224	462	50600702	425	50767640	426	52024556	604
504R	66	50600710	425	50767657	426	52033579V2	590
504RLD	66	50600729	425	507R	66	52033580	578
505R	66	50600737	425	507RLD	66	52033816	431
505RLD	66	50600745	425	508R	66	52033817	431
50600010	426	50600753	425	508RLD	66	52033818	431
50600028	426	50600761	425	509R	66	52033819	431
50600036	426	50600770	428	509RLD	66	52033820	431
50600087	426	50600788	428	50B	29	52033831	431
50600095	426	50600982	428	50B10	28	52033832	431
50600141	426	50601016	429	50B12	28	52033843	437
50600150	426	50601040	429	50B8	28	52034233	454
50600168	426	50601075	429	50R10	18	52041709	564
50600176	426	50601105	429	50R1045	20	52041741	564
50600184	426	50601121	429	50R12	18	52041743	564
50600192	426	50601148	424	50R1245	20	52041745	564
50600214	426	50601156	432	50R14	18	52041746	564
50600230	426	50601172	432	50R1445	20	52041747	564
50600249	426	50601180	432	50R16	18	52041748	565
50600257	425	50601202	425, 426, 429	50R1645	20	52041749	565
50600265	425	50601271	427	50R20	18	52041750	564
50600273	425	50601652	425-429	50R8	18	52041751	564
50600303	425	50601660	432	50R845	20	52041752	565
50600311	425	50601679	424	51040060	418	52041753	565
50600320	425	50601687	426	51040080	418	52045040	419, 420
50600338	425	50601695	426	51069720	420	52045296	425
50600346	425	50601717	426	51069740	419	52045297	425
50600354	425	50601733	426	510R	66	52045298	425
50600362	425	50601741	426	510RLD	66	52045300	425
50600370	425	50601768	426	51147220	418, 420	52046100	426, 431
50600389	425	50601776	426	511R	66	52046101	426, 431
50600397	425	50601784	426	511RLD	66	52047801V2	582
50600400	425	50601792	426	512R	66	52047802V2	583
50600419	425	50602349	426	512RLD	66	52047803V2	584
50600427	425	50602357	425, 426	51300430	418, 420	52047805V2	585
50600435	425	50602373	420	51319760	420	52047806V2	585
50600451	425	50602381	427	51320090	419, 420	52047817	422
50600460	425	50602390	427	513R	66	52047818	422
50600478	425	50602420	427	513RLD	66	52049407	579
50600486	425	50602438	427	514R	66	52049408	579
50600494	425	50602462	420	514RLD	66	52055270	560
50600508	425	50602497	427	51600790	428	52055271	560
50600516	425	50602586	425-429	51601020	429	52055272	560
50600524	425	50610045	426	51601030	429	52055273	560
50600532	425	50610076	426	51601050	429	52055274	560
50600540	425	50610106	426	51601060	429	52055275	560
50600559	425	50610137	426	51601080	429	52055276	560
50600567	425	50610281	425	51601090	429	52055277	560
50600575	425	50610809	428	51601110	429	52055278	560
50600583	425	50610830	428	51R10	18	52055279	560

Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
52055280	560	52055439SET	449	52057780	462	532R	65
52055281	560	52055440	422	52057781	462	533R	65
52055282	561	52055440SET	450	52057782	462	534R	65
52055283	561	52055684	411	52057801	459	535R	65
52055284	561	52056268V2	586	52057802	459	536R	65
52055285	561	52057722	458	52057803	459	53R12	18
52055286	561	52057723	458	52057804	459	53R1245	20
52055287	561	52057724	458	52057805	459	53R14	18
52055292	560	52057725	458	52058591	431	53R1445	20
52055293	560	52057726	458	52058592	431	53R16	18
52055294	560	52057727	458	52059292SET	460	53R1645	20
52055295	560	52057728	458	52059293SET	460	53R20	18
52055296	560	52057729	458	52059294SET	460	53R2045	20
52055298	563	52057730	458	52059295SET	460	54R12	18
52055299	563	52057731	458	52059364	596	54R1245	20
52055300	563	52057732	458	52059365	596	54R14	18
52055313	566	52057733	458	52063422	578	54R1445	20
52055315	566	52057734	458	52065998	422	54R16	18
52055316	566	52057735	458	52065999	422	54R1645	20
52055325	566	52057736	458	52066001	422	54R20	18
52055326	566	52057737	458	52066002	422	54R2045	20
52055327	566	52057738	458	52066021	422	551R	119
52055328	566	52057739	458	52066022	422	552R	119
52055337	566	52057740	458	52066023	422	553R	119
52055338	566	52057741	458	52066024	422	554R	119
52055339	566	52057742	458	52066025	422	555R	119
52055340	566	52057743	458	52066026	422	556R	119
52055341	566	52057744	458	52066027	422	557R	119
52055347	566	52057745	458	52066028	422	558R	119
52055348	566	52057746	458	52066029	422	559R	119
52055349	566	52057747	458	52066030	422	560R	119
52055350	566	52057748	458	52066031	422	561R	119
52055351	566	52057749	458	52066032	422	562R	119
52055352	566	52057750	458	52066033	422	563R	119
52055359	566	52057751	458	52066034	422	56C4	51
52055360	566	52057752	458	52066372	592	56C5	51
52055361	566	52057753	458	52066374	592	56N4	50
52055362	566	52057754	459	52066376	591	56N5	50
52055378	572	52057755	459	52066378	591	572R6	118
52055379	572	52057756	459	52066379	590	573R6	118
52055380	572	52057757	459	52074600	562	573R8	118
52055381	572	52057758	459	52074650	562	574R8	118
52055382	572	52057760	459	523R	65	575R8	118
52055383	568	52057761	459	524R	65	57C4	51
52055384	568	52057762	459	525R	65	57C5	51
52055385	561	52057763	459	526R	65	57C6	51
52055386	561	52057764	459	527R	65	57N4	50
52055389	562	52057765	459	528R	65	57N5	50
52055390	562	52057766	459	529R	65	57N6	50
52055391	562	52057767	459	52R10	18	584R10	118
52055392	562	52057768	459	52R1045	20	584R8	118
52055423	426	52057769	459	52R12	18	585R10	118
52055431	422	52057770	459	52R1245	20	585R12	118
52055432	422	52057771	459	52R14	18	585R8	118
52055433	422	52057773	459	52R1445	20	586R10	118
52055434	422	52057774	459	52R16	18	586R12	118
52055435	422	52057775	459	52R1645	20	587R10	118
52055436	422	52057776	459	52R20	18	587R12	118
52055437	422	52057777	459	52R2045	20	588R10	118
52055438	422	52057778	459	530R	65	588R12	118
52055439	422	52057779	459	531R	65	589R10	118



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
589R12	118	607R6	26	630C6	157	66012	77
589R16	118	607R8	26	63N10	50	66016	77
58C4	51	608R10	26	63N8	50	669	165
58C5	51	608R12	26	63R	52	66R	52
58C6	51	608R14	26	64N10	50	670	165
58N4	50	608R16	26	64N12	50	670WS	165
58N5	50	608R20	26	64R	52	680	165
58N6	50	608R8	26	65010	156	680WS	165
590R10	118	609R10	26	6504	156	695V	138
590R12	118	609R12	26	6505	156	697V	138
590R16	118	609R16	26	6506	156	6B	29
590R20	118	609R8	26	6508	156	6B10	28
59294520	421	60C5	51	650C10	157	6B5	28
592R12	118	60C6	51	650C4	157	6B6	28
592R16	118	60C8	51	650C5	157	6B8	28
592R20	118	60N5	50	650C6	157	6R10	15
59C5	51	60N6	50	650C8	157	6R12	15
59C6	51	60N8	50	65210	76	6R14	15
59N5	50	6192	156	65212	76	6R16	15
59N6	50	61925	156	6525	76	6R20	15
5R10	14	6193	156	6526	76	6R6	15
5R12	14	61935	156	6528	76	6R8	15
5R14	14	6194	156	652C5	80	6SG10	16
5R16	14	6195	156	652C6	80	6SG6	16
5R6	14	619C3	157	65310	76	6SG8	16
5R8	14	61N6	50	65312	76	700	165
5SG6	16	61N8	50	6535	76	700WS	165
602R10	25	62010	156	6536	76	702F10	33
602R12	25	62025	156	6538	76	702F12	33
602R5	25	6203	156	653C6	80	702F5	33
602R6	25	62035	156	65410	76	702F6	33
602R8	25	6204	156	65412	76	702F8	33
603R10	25	6205	156	65416	76	703F10	33
603R12	25	6206	156	6545	76	703F12	33
603R5	25	6208	156	6546	76	703F5	33
603R6	25	620C3	157	6548	76	703F6	33
603R8	25	620C35	157	65510	76	703F8	33
604R10	25	620C4	157	65512	76	704	158
604R12	25	620C5	157	65516	76	704F10	33
604R14	25	620C6	157	6556	76	704F12	33
604R5	25	622R	27	6558	76	704F5	33
604R6	25	623R	27	65610	76	704F6	33
604R8	25	624R	27	65612	76	704F8	33
605R10	25	625R	27	65616	76	705	158
605R12	25	626R	27	6566	76	705F10	33
605R14	25	627R	27	6568	76	705F12	33
605R16	25	628R	27	65710	77	705F14	33
605R6	25	62N6	50	65712	77	705F6	33
605R8	25	62N8	50	65716	77	705F8	33
606R10	26	62R	52	6576	77	705K	158
606R12	26	63010	156	6578	77	705V	138
606R14	26	6303	156	65810	77	706F10	33
606R16	26	63035	156	65812	77	706F12	33
606R20	26	6304	156	65816	77	706F14	33
606R6	26	6305	156	65910	77	706F16	33
606R8	26	6306	156	65912	77	706F6	33
607R10	26	6308	156	65916	77	706F8	33
607R12	26	630C3	157	65N10	50	707F10	34
607R14	26	630C35	157	65N12	50	707F12	34
607R16	26	630C4	157	65R	52	707F14	34
607R20	26	630C5	157	66010	77	707F16	34



Part No.	Page
707F8	34
707V	138
708F10	34
708F12	34
708F14	34
708F16	34
708F8	34
709F10	34
709F12	34
709F14	34
709F16	34
709F20	34
70B	29
70B10	28
70B12	28
70B16	28
70B8	28
710	158
710F10	34
710F12	34
710F14	34
710F16	34
710F20	34
710K	158
710L	158
7110V	138
7112V	138
7115V	138
711F12	34
711F14	34
711F16	34
711F20	34
712F10	34
712F12	34
712F14	34
712F16	34
712F20	34
713F12	34
713F14	34
713F16	34
713F20	34
715	158
716V	138
718V	138
71S10V	138
71S6V	138
71S8V	138
720	161
7208	161
720AZ	162
720BZ	162
720V	163
7210V	138
7212V	138
7215V	138
7218V	138
7220V	138
722F	37
723F	37
724F	37
725	172

Part No.	Page
725F	37
726F	37
726V	138
727F	37
727V	138
728F	37
728V	138
729F	37
72S10V	138
72S12V	138
72S15V	138
72S6V	138
72S8V	138
730	161
7308	161
730AZ	162
730BZ	162
730F	37
730V	163
7310V	138
7312V	138
7315V	138
7318V	138
731F	37
7320V	138
735	172
737V	138
738V	138
7410V	139
7412V	139
7415V	139
7418V	139
7420V	139
742F10	35
742F12	35
742F5	35
742F6	35
742F8	35
743F10	35
743F12	35
743F5	35
743F6	35
743F8	35
744F10	35
744F12	35
744F5	35
744F6	35
744F8	35
745F10	35
745F12	35
745F14	35
745F6	35
745F8	35
746F10	35
746F12	35
746F14	35
746F16	35
746F6	35
746F8	35
747F10	36
747F12	36

Part No.	Page
747F14	36
747F16	36
747F8	36
748F10	36
748F12	36
748F14	36
748F16	36
748F8	36
748V	139
749F10	36
749F12	36
749F14	36
749F16	36
749F20	36
749V	139
750	161
7509	161
750AZ	162
750BZ	162
750F10	36
750F12	36
750F14	36
750F16	36
750F20	36
750V	163
7510V	139
7512V	139
7515V	139
7518V	139
751F12	36
751F14	36
751F16	36
751F20	36
7520V	139
7525V	139
752F16	36
755	172
7610V	139
7612V	139
7615V	139
7618V	139
7620V	139
7625V	139
769	166
770	166
7712V	139
7715V	139
7718V	139
7720V	139
7725V	139
7732V	139
775	172
780	166
7812V	139
7815V	139
7818V	139
7820V	139
7825V	139
7828V	139
7832V	139
790	166

Part No.	Page
7912V	139
7915V	139
7918V	139
7920V	139
7922V	139
7925V	139
7930V	139
7932V	139
79R	49
79V4	48
79V5	48
7R10	15
7R12	15
7R14	15
7R16	15
7R20	15
7R6	15
7R8	15
7SG10	16
7SG12	16
7SG6	16
7SG8	16
8001	172
80012	172
8002	172
8011	173
80112	173
8012	173
8018V	139
8022V	139
8025V	139
8030V	139
80318721	418, 419
8032V	139
8051	172
80512	172
8052	172
80R	49
80V4	48
80V5	48
80V6	48
8101	172
81012	172
8102	172
8122V	140
8125V	140
8130V	140
8132V	140
8151	173
81512	173
816	174
817	174
81R	49
81V4	48
81V5	48
81V6	48
820	164
8201	161
8201A	161
8201AV	163
8201B	164



Part No.	Page
8201C	164
8201V	163
8202	161
8202B	164
8202V	163
8203	161
8203B	164
8203V	163
8225V	140
8230V	140
8232V	140
8234V	140
82R	49
82V5	48
82V6	48
82V8	48
830	164
8301	161
8301A	161
8301AV	163
8301V	163
8302	161
8302B	164
8302V	163
8303	161
8303B	164
8303V	163
8330V	140
8332V	140
8334V	140
8338V	140
8340V	140
83R	49
83V5	48
83V6	48
83V8	48
8432V	140
8434V	140
8438V	140
8440V	140
84R	49
84V6	48
84V8	48
850	164
8502B	164
8502V	163
8503	161
8503B	164
8503V	163
8532V	140
8540V	140
85R	49
85V6	48
85V8	48
8634V	140
8640V	140
8678	147
8688	147
8698	147
86R	49
86V10	48

Part No.	Page
86V12	48
86V6	48
86V8	48
87010	147
8708	147
87110	147
8718	147
87212	147
8728	147
87310	147
87313	147
87412	147
87514	147
87614	147
87714	147
87R	49
87V10	48
87V12	48
87V16	48
87V8	48
88R	49
88V10	48
88V12	48
88V8	48
8R10	15
8R12	15
8R14	15
8R16	15
8R20	15
8R8	15
8SG10	16
8SG12	16
8SG6	16
8SG8	16
90500113	429
90508068	497
90510593	497
91C3	13
91C4	13
91C5	13
91R3	12
91R4	12
91R5	12
920	159
920V	160
92C3	13
92C4	13
92C5	13
92C6	13
92R3	12
92R4	12
92R5	12
92R6	12
930	159
93C3	13
93C4	13
93C5	13
93C6	13
93R3	12
93R4	12
93R5	12

Part No.	Page
93R6	12
93R8	12
94C4	13
94C5	13
94C6	13
94C8	13
94R4	12
94R5	12
94R6	12
94R8	12
950	159
950V	160
95B	29
95B10	28
95B12	28
95B16	28
95C4	13
95C5	13
95C6	13
95C8	13
95R4	12
95R5	12
95R6	12
95R8	12
96C5	13
96C6	13
96C8	13
97C5	13
97C6	13
97C8	13
9R10	15
9R12	15
9R14	15
9R16	15
9R20	15
9R8	15
9SG10	16
9SG12	16
9SG6	16
9SG8	16
A10	339
A150	339
A1625	339
A185	339
A2210	344
A22150	344
A221625	344
A22185	344
A22240	344
A22300	344
A2235	344
A2250	344
A2270	344
A2295120	344
A22SET	344
A300	146
A35	339
A50	339
A70	339
A95120	339
AD22120	344

Part No.	Page
AD22150185	344
AD2225	344
AD2235	344
AD2250	344
AD2270	344
AD2295	344
AD25	339
AD35	339
AD50	339
AD70	339
AD95	339
AE10	340
AE16	340
AE2210	346
AE22120	346
AE22150	346
AE2216	346
AE22185	346
AE22240	346
AE2225	346
AE2235	346
AE2250	346
AE2270	346
AE2295	346
AE25	340
AE35	340
AE50	340
AE501	326
AE502	326
AE503	326
AE70	340
AE95	340
AES10	340
AES16	340
AES2210	346
AES22120	346
AES22150	346
AES2216	346
AES22185	346
AES22240	346
AES2225	346
AES2235	346
AES2250	346
AES2270	346
AES2295	346
AES25	340
AES35	340
AES50	340
AES70	340
AES95	340
AH120120	123
AH7070	123
AH9595	123
AHP700L	489
AS105FHP	405
AS120FHP	405
AS65FHP	404
ASSG105L	409
ASSG120SL	409
ASSG65L	409
ASSGG105L	409





Part No.	Page
ASSGG85L	409
AST22120	345
AST2225	345
AST2235	345
AST2250	345
AST2270	345
AST2295	345
B2210	342
B22120	342
B22150	342
B2216	342
B22185	342
B22240	342
B2225	342
B22300	342
B2235	342
B2250	342
B226	342
B2270	342
B2295	342
B22SET	342
BAG9698	149
BAG9708	149
BAG9718	149
BAG9728	149
BAG9738	149
BAK9698	148
BAK9708	148
BAK9718	148
BAK9728	148
BAK9738	148
BNC501	327
C16	339
C2216	345
C2225	345
C2235	345
C2250	345
C25	339
C35	339
C50	339
CK16	122
CK25	122
CK35	122
CK50	122
CK70	122
CK95	122
CR501	327
CR502	327
CR503	327
CR504	327
CR505	327
CS1022	114
CS1228	114
CS1428	114
CS1635	114
CS630	114
CS818	114
D10	338
D120	338
D150	338
D16	338

Part No.	Page
D185	338
D2210	343
D22120	343
D22150	343
D2216	343
D22185	343
D22240	343
D2225	343
D22300	343
D2235	343
D2250	343
D226	343
D2270	343
D2295	343
D22SET	343
D25	338
D35	338
D50	338
D505	326
D6	338
D70	338
D95	338
DNAW3	555
DNK742	239
DNP2	499
DP2250	343
DP2270	343
EBS12CFB	378
EBS12CFM	378
EBS12ML	371
EBS6LGKS	376
EBS8CFB	377
EBS8CFM	377
EBS8ML	371
EHP2380	486
EHP3	487
EHP4115	488
EHP4230	488
EK12032CFB	280
EK12032CFM	280
EK12042CFB	282
EK12042CFM	282
EK120IDCFB	279
EK120IDCFM	279
EK120UCFB	284
EK120UCFM	284
EK120UNVCFB	477
EK120UNVCFM	477
EK135FTCFB	286
EK135FTCFM	286
EK1550ML	258
EK354CFB	266
EK354CFM	266
EK354ML	260
EK5018CFB	270
EK5018CFM	270
EK505CFB	268
EK505CFM	268
EK50ML	254
EK6022CFB	274
EK6022CFM	274

Part No.	Page
EK60UNVCFB	476
EK60UNVCFM	476
EK60VPCFB	276
EK60VPCFM	276
EK60VPFTCFB	277
EK60VPFTCFM	277
EKM6022CFB	272
EKM6022CFM	272
EKM6022ISM	205-5
EKM60IDCFB	278
EKM60IDCFM	278
EKM60IDISM	205-7
EKM60UNVCFB	475
EKM60UNVCFM	475
ES105CFB	392
ES20CFB	379
ES20CFM	379
ES20ISM	205-9
ES20ML	372
ES20RMCCFB	380
ES20RMCCFB0000	380
ES20RMCCFM	380
ES20RMCCFM0000	380
ES32CFB	382
ES32CFM	382
ES32FCFB	383
ES32FCFM	383
ES32FML	373
ES32ISM	205-10
ES32ML	373
ES32RMCCFB	380
ES32RMCCFB0000	380
ES32RMCCFM	380
ES32RMCCFM0000	380
ES65CFB	388
ES65CFM	388
ES85CFB	390
ES85CFM	390
ESG105CFB	391
ESG105CFM	391
ESG25CFB	381
ESG25CFM	381
ESG45CFB	385
ESG45CFM	385
ESG50CFB	386
ESG50CFM	386
ESG55CFB	387
ESG55CFM	387
ESG85CFB	389
ESG85CFM	389
ESGM45CFB	384
ESGM45CFM	384
ESM25ISM	205-12
ESM35ISM	205-11
ESM50CFB	386
ESM50CFM	386
ESM50ISM	205-8
ESSG105L	408
ESSG65I	408
ESSGG85L	408
F10	337

Part No.	Page
F16	337
F2210	342
F2216	342
F2225	342
F2235	342
F2250	342
F2270	342
F25	337
F35	337
F50	337
FHP2	485
FTA1	496
FTA4	496
GR1698	144
GR1690	142
GR1708	144
GR170W	143
GR1718	144
GR171G	143
GR1728	144
GR172RO	143
GR1738	144
GR173B	143
GR4698	141
GR4698DO	184
GR4708	141
GR4708DO	184
GR4718	141
GR4718DO	184
GR4728	141
GR4728DO	185
GR4738	141
GR4738DO	185
H2270	345
HA1310	350
HA13150	350
HA131625	350
HA13185	350
HA13240	350
HA13300	350
HA1335	350
HA1350	350
HA1370	350
HA1395120	350
HA15400	352
HA15500	352
HA2510	355
HA25150	355
HA251625	355
HA25185	355
HA25240	355
HA25300	355
HA2535	355
HA25400	355
HA2550	355
HA25500	355
HA2570	355
HA2595120	355
HA410	331
HA41625	331
HA435	331





Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
HA450	331	HAE416	332	HB4150	329	HD25625	354
HA45150	358	HAE425	332	HB416	329	HD2570	354
HA45185	358	HAE435	332	HB425	329	HD2595	354
HA45240	358	HAE450	332	HB435	329	HD410	330
HA45300	358	HAE510	336	HB450	329	HD4120	330
HA45400	358	HAE516	336	HB46	329	HD416	330
HA45500	358	HAE525	336	HB470	329	HD425	330
HA470	331	HAE535	336	HB495	329	HD435	330
HA510	335	HAE550	336	HB4SET	329	HD450	330
HA5150	335	HAE570	336	HB51050	333	HD451000	358
HA51625	335	HAE595	336	HB5120	333	HD45120	358
HA535	335	HAES13120	351	HB5150	333	HD45150	358
HA550	335	HAES13150	351	HB51670	333	HD45185	358
HA570	335	HAES13185	351	HB5185	333	HD45240	358
HA595120	335	HAES13240	351	HB52595	333	HD45300	358
HAD13120	350	HAES1325	351	HB5635	333	HD45400	358
HAD13150185	350	HAES1335	351	HB5SET	334	HD45500	358
HAD1325	350	HAES1350	351	HC1316	351	HD45625	358
HAD1335	350	HAES1370	351	HC1325	351	HD45800	358
HAD1350	350	HAES1395	351	HC1335	351	HD46	330
HAD1370	350	HAES25120	357	HC1350	351	HD470	330
HAD1395	350	HAES25150	357	HC1370	351	HD495	330
HAD25120	355	HAES25185	357	HC2516	356	HD4SET	330
HAD25150185	355	HAES25240	357	HC2525	356	HD51050	334
HAD25240	355	HAES2525	357	HC2535	356	HD5120	334
HAD2525	355	HAES2535	357	HC2550	356	HD5150	334
HAD25300	355	HAES2550	357	HC2570	356	HD51670	334
HAD2535	355	HAES2570	357	HC2595	356	HD5185	334
HAD2550	355	HAES2595	357	HC416	331	HD52595	334
HAD2570	355	HAES410	332	HC425	331	HD5635	334
HAD2595	355	HAES416	332	HC516	335	HD5SET	334
HAD425	331	HAES425	332	HC525	335	HDP1350	348
HAD435	331	HAES435	332	HC535	335	HDP1370	348
HAD450	331	HAES450	332	HD1001000	359	HDP1395	348
HAD45150185	358	HAES510	336	HD100625	359	HDP25120	354
HAD45240	358	HAES516	336	HD100800	359	HDP2550	354
HAD45300	358	HAES525	336	HD13120	348	HDP2570	354
HAD525	335	HAES535	336	HD13150	348	HDP2595	354
HAD535	335	HAES550	336	HD1316	348	HF13120	348
HAD550	335	HAES570	336	HD13185	348	HF13150	348
HAD570	335	HAES595	336	HD13240	348	HF1316	348
HAD595	335	HAH13120	351	HD1325	348	HF1325	348
HAE13120	351	HAH1370	351	HD13300	348	HF1335	348
HAE13150	351	HAH1395	351	HD1335	348	HF1350	348
HAE13185	351	HAH25120	356	HD1350	348	HF1370	348
HAE13240	351	HAH2570	356	HD1370	348	HF1395	348
HAE1325	351	HAH2595	356	HD1395	348	HF25120	354
HAE1335	351	HAST13120	350	HD15400	352	HF25150	354
HAE1350	351	HAST1325	350	HD15500	352	HF2516	354
HAE1370	351	HAST1335	350	HD15625	352	HF25185	354
HAE1395	351	HAST1350	350	HD25120	354	HF25240	354
HAE25120	357	HAST1370	350	HD25150	354	HF2525	354
HAE25150	357	HAST1395	350	HD2516	354	HF25300	354
HAE25185	357	HAST25120	356	HD25185	354	HF2535	354
HAE25240	357	HAST2525	356	HD25240	354	HF2550	354
HAE2525	357	HAST2535	356	HD2525	354	HF2570	354
HAE2535	357	HAST2550	356	HD25300	354	HF2595	354
HAE2550	357	HAST2570	356	HD2535	354	HF410	329
HAE2570	357	HAST2595	356	HD25400	354	HF416	329
HAE2595	357	HB410	329	HD2550	354	HF425	329
HAE410	332	HB4120	329	HD25500	354	HF435	329



Part No.	Page
HF510	334
HF516	334
HF525	334
HF535	334
HF550	334
HIS1310	347
HIS13120	347
HIS13150	347
HIS1316	347
HIS1325	347
HIS1335	347
HIS1350	347
HIS1370	347
HIS1395	347
HIS2510	353
HIS25120	353
HIS25150	353
HIS2516	353
HIS2525	353
HIS2535	353
HIS2550	353
HIS2570	353
HIS2595	353
HIS410	328
HIS416	328
HIS425	328
HIS435	328
HIS450	328
HIS470	328
HIS510	333
HIS516	333
HIS525	333
HIS535	333
HIS550	333
HIS570	333
HIS595	333
HISQ1310	349
HISQ1316	349
HISQ1325	349
HISQ1335	349
HISQ1350	349
HISQ1370	349
HISQ1395	349
HISQ2510	355
HISQ25120	355
HISQ25150	355
HISQ2516	355
HISQ2525	355
HISQ2535	355
HISQ2550	355
HISQ2570	355
HISQ2595	355
HISQ410	330
HISQ416	330
HK12030	298
HK12042	300
HK120U	302
HK122EL380	322
HK252	320
HK252EL380	323
HK45	321

Part No.	Page
HK6018	292
HK6022	294
HK60UNV	473
HK60VP	296
HK60VPFT	297
HL15500	352
HL15630	352
HM4154	329
HM416	329
HM4610	329
HMC1310	351
HMC1335	351
HMC1350	351
HMC1370	351
HMC25120	356
HMC25150	356
HMC25185	356
HMC2535	356
HMC2550	356
HMC2570	356
HMC2595	356
HMC410	331
HMC435	331
HMC44	331
HN1310	348
HN1316	348
HN1325	348
HN1335	348
HN1350	348
HN1370	348
HN1395	348
HN4051	329
HN410	329
HN41525	329
HN416	329
HN446	329
HQ13120	349
HQ13150	349
HQ1316	349
HQ1325	349
HQ1335	349
HQ1350	349
HQ1370	349
HQ1395	349
HQ25120	354
HQ25150	354
HQ2516	354
HQ25185	354
HQ25240	354
HQ2525	354
HQ2535	354
HQ2550	354
HQ2570	354
HQ2595	354
HQ410	330
HQ416	330
HQ425	330
HQ435	330
HQ510	334
HQ516	334
HQ525	334

Part No.	Page
HQ535	334
HQ550	334
HR13120	347
HR13150	347
HR1316	347
HR13185	347
HR13240	347
HR1325	347
HR13300	347
HR1335	347
HR13400	347
HR1350	347
HR1370	347
HR1395	347
HR25120	353
HR25150	353
HR2516	353
HR25185	353
HR25240	353
HR2525	353
HR25300	353
HR2535	353
HR25400	353
HR2550	353
HR2570	353
HR2595	353
HR410	328
HR4120	328
HR4150	328
HR416	328
HR425	328
HR435	328
HR450	328
HR46	328
HR470	328
HR495	328
HR4SET	328
HR51050	333
HR5120	333
HR5150	333
HR51670	333
HR5185	333
HR5240	333
HR52595	333
HR5635	333
HR5SET	333
HRU1310	349
HRU1312095	349
HRU13150120	349
HRU1316	349
HRU13185150	349
HRU13240185	349
HRU13300240	349
HRU13300SM	349
HRU133525	349
HRU135035	349
HRU137050	349
HRU139570	349
HRU2510	355
HRU2512095	355
HRU25150120	355

Part No.	Page
HRU2516	355
HRU25185150	355
HRU25240185	355
HRU25300240	355
HRU25300SM	355
HRU253525	355
HRU255035	355
HRU257050	355
HRU259570	355
HRU410	331
HRU412095	331
HRU4150120	331
HRU416	331
HRU43525	331
HRU45035	331
HRU47050	331
HRU49570	331
HRU510	335
HRU512095	335
HRU5150120	335
HRU516	335
HRU5185150	335
HRU5240185	335
HRU5300240	335
HRU53525	335
HRU55035	335
HRU57050	335
HRU59570	335
HS210	497
HS22	497
HS23	497
HS24	497
HS25	497
HS26	497
HS28	497
HSG45	397
HSG55	398
HSG852	398
HSOEL10	497
HSOEL2	497
HSOEL3	497
HSOEL4	497
HSOEL5	497
HSOEL6	497
HSOEL8	497
HST131215	350
HST1320	350
HST1346	350
HST138	350
HST251215	356
HST2520	356
HST2546	356
HST258	356
HTA4	499
HZAE410	332
HZAE416	332
HZAE44	332
HZAE46	332
HZAE510	336
HZAE516	336
HZAE54	336



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
HZAE56	336	K1012	369	K7SP	233	KL1100IS12	521
HZAES410	332	K102	364	K8	233	KL1100IS13	521
HZAES416	332	K1031	365	K80	220	KL1100IS17	521
HZAES44	332	K1041	366	K82A	221	KL1100IS19	521
HZAES46	332	K1051	368	K82T	222	KL1100IS22	521
HZAES510	336	K1061	365	K8SP	233	KL1100IS6	521
HZAES516	336	K1062	365	K93	228	KL1100IS7	521
HZAES54	336	K118	364	K94	228	KL1100IS8	521
HZAES56	336	K130	366	K95	230	KL110PH1IS	508
IS10	337	K150	367	KF125	123	KL110PH1ISLIM	508
IS16	337	K16	223	KKPE	195	KL110PH2IS	508
IS2210	341	K18	248	KKPEH25	195	KL110PH2ISLIM	508
IS22120	341	K2	229	KL010160IS	504	KL110PH3IS	508
IS22150	341	K2011	368	KL010210IS	504	KL1200IS1255	524
IS2216	341	K22	250	KL020165IS	504	KL1200IS3855	524
IS2225	341	K230	366	KL020180IS	504	KL120PZ1IS	509
IS2235	341	K25	230	KL020205IS	504	KL120PZ1ISLIM	509
IS2250	341	K250	367	KL026205IS	504	KL120PZ2IS	509
IS2270	341	K271	218	KL040115EL	529	KL120PZ2ISLIM	509
IS2295	341	K272	219	KL040115ELW	529	KL120PZ3IS	509
IS25	337	K28	219	KL040128EL	529	KL1210IS12PH2	525
IS35	337	K29	220	KL040128ELH	529	KL1210IS38PH2	525
IS50	337	K3	211	KL040145IS	505	KL1230IS12PM1	524
IS503	327	K3014K	217	KL040160IS	505	KL1230IS12PM2	524
IS504	327	K3016K	218	KL040180IS	505	KL1230IS12PM3	524
IS505	327	K303	216,217	KL042190IS	505	KL1230IS38PM1	524
IS5072	327	K304K	218	KL044200IS	505	KL1230IS38PM2	524
IS70	337	K306K	217	KL045180IS	505	KL1230IS38PM3	524
IS95	337	K32	213	KL045240IS	505	KL1240IS1210	523
ISQ10	338	K34	214	KL046200IS	506	KL1240IS1211	523
ISQ16	338	K35	211	KL050115EL	529	KL1240IS1212	523
ISQ2210	343	K354	246	KL050205IS	506	KL1240IS1213	523
ISQ2216	343	K36	213	KL055205IS	506	KL1240IS1214	523
ISQ2225	343	K37	214	KL060160IS	507	KL1240IS1216	523
ISQ2235	343	K382	215	KL070250G	528	KL1240IS1217	523
ISQ2250	343	K39	215	KL070250IS	507	KL1240IS1219	523
ISQ2270	343	K4	210	KL072180G	528	KL1240IS1222	523
ISQ25	338	K400	552	KL072250G	528	KL1240IS1224	523
ISQ35	338	K432	549	KL072300G	528	KL1240IS1227	523
ISQ50	338	K43290	549	KL078250G	528	KL1240IS3810	523
K02	229	K432U	549	KL1000IS12	522	KL1240IS3811	523
K04	234	K432V	549	KL1000IS12NM25	522	KL1240IS3812	523
K05	235	K433	550	KL1000IS12NM27	522	KL1240IS3813	523
K05BC	234	K46	210	KL1000IS12NM50	522	KL1240IS3814	523
K05D	235	K48	212	KL1000IS38	522	KL1240IS3817	523
K05DSP	235	K5	231	KL1000IS38NM25	522	KL1240IS3819	523
K05SP	235	K50	244	KL1000IS38NM27	522	KL1260IS1214	524
K06	236	K507	243	KL1000IS38NM50	522	KL1260IS1215	524
K06BC	236	K511	239	KL10010030IS	508	KL1260IS1216	524
K06D	237	K512	239	KL10010035IS	508	KL1260IS1218	524
K06DSP	237	K572	224	KL10010035ISLIM	508	KL1260IS3814	524
K06SP	236	K582	224	KL10010040IS	508	KL1260IS3815	524
K07	232	K592	225	KL10010040ISLIM	508	KL1260IS3816	524
K07SP	232	K5SP	231	KL10012555IS	508	KL1260IS3818	524
K09	238	K6	232	KL10012555ISLIM	508	KL1290IS12125	523
K09BC	237	K60	223	KL10012565ISLIM	508	KL1290IS12250	523
K09D	238	K610	520	KL10015065IS	508	KL1290IS38125	523
K09DSP	238	K65	227	KL10017580IS	508	KL1290IS38250	523
K1	212	K67	226	KL1007525IS	508	KL1299IS12	522
K100	364	K6SP	232	KL1100IS10	521	KL1299IS38	522
K1011	367	K7	233	KL1100IS11	521	KL1300IS12B20	521



Part No.	Page
KL130PM1IS	509
KL130PM1ISLIM	509
KL130PM2IS	509
KL130PM2ISLIM	509
KL145100IS	510
KL145130IS	510
KL14555IS	510
KL14560IS	510
KL14570IS	510
KL14580IS	510
KL150TX10IS	510
KL150TX15IS	510
KL150TX15ISLIM	510
KL150TX20IS	510
KL150TX20ISLIM	510
KL150TX25IS	510
KL150TX25ISLIM	510
KL150TX30IS	510
KL180B8	529
KL19073IS	510
KL2007335	530
KL2007340	530
KL2007355	530
KL2007365	530
KL21073PH1	530
KL21073PH2	530
KL22073PZ1	530
KL22073PZ2	530
KL23073PM1	531
KL23073PM2	531
KL25073TX10	531
KL25073TX15	531
KL25073TX20	531
KL25073TX25	531
KL25073TX27	531
KL25073TX30	531
KL25073TX40	531
KL290	531
KL291	531
KL295	532
KL296	532
KL301IS	514
KL303IS	512
KL304IS	512
KL306IS	512
KL315	532
KL330	535
KL331	535
KL335	535
KL340	535
KL350	530
KL361	532
KL365	535
KL370	533
KL375	533
KL38715	533
KL38830	534
KL38954	534
KL390B13ISLIM	516
KL390B7ISLIM	517
KL390IS	513

Part No.	Page
KL390ISLIM	513
KL390TB9	515
KL391IS	512
KL391ISLIM	514
KL392IS	513
KL393IS	513
KL400PH1170ISSB	515
KL400PH2170ISSB	515
KL400PM1170ISSB	515
KL400PM2170ISSB	515
KL400PZ1170ISSB	515
KL400PZ2170ISSB	515
KL400S35170ISSB	515
KL400S40170ISSB	515
KL400S55170ISSB	515
KL402	536
KL403	536
KL420200	535
KL425400	536
KL425600	536
KL440F	536
KL449	536
KL500	537
KL510	537
KL520	537
KL540	539
KL542	539
KL542ES	539
KL544	540
KL544ES	540
KL545	539
KL550	539
KL550ES	539
KL559	539
KL580300	538
KL580500	538
KL5821000	538
KL5821250	538
KL584230	538
KL585200	538
KL585250	538
KL586	538
KL600	516
KL602GELB	516
KL603	516
KL604	540
KL604S	540
KL60509	518
KL60510	518
KL60511	518
KL605U	518
KL620S1000	517
KL625A1000	517
KL625A500	517
KL628	517
KL640GK	519
KL642HK	519
KL645GSK	519
KL690130	520
KL698	520
KL710	553

Part No.	Page
KL720	554
KL730	553
KL735PV	553
KL740416	552
KL740828	552
KL745GK	552
KL745HK	553
KL760180	550
KL760180IS	507
KL765FR215	551
KL765PV	551
KL850L	546
KL855B22	542
KL855L	547
KL860L	546
KL865B19	543
KL865L	547
KL880B26IS	526
KL880L	526
KL890TB88	544
KL890TL	546
KL905B15	545
KL905L	547
KL910L	547
KL920B22	546
KL920L	547
KLNMPPH1ISLIM	515
KLNMPPH2ISLIM	515
KLNMPPM1ISLIM	515
KLNMPPM2ISLIM	515
KLNMPPZ1ISLIM	515
KLNMPPZ2ISLIM	515
KLNMS35ISLIM	515
KLNMS40ISLIM	515
KLNMS55ISLIM	515
KLNMTX10ISLIM	515
KLNMTX15ISLIM	515
KLNMTX20ISLIM	515
KLNMTX25ISLIM	515
KMF1	499
KP1	240
KP1L	240
KSK1503	130
KSK1504	130
KSK1854	130
KSK504	131
KST2	498
KV10	24
KV120	24
KV15	24
KV150	24
KV16	24
KV185	24
KV2.5	24
KV240	24
KV25	24
KV35	24
KV4	24
KV50	24
KV6	24
KV70	24

Part No.	Page
KV95	24
LBOXX230B	203
LBOXX50B	201
LBOXX65B	200
LBOXX65BCB	202
LBOXXEK354CFB	205
LBOXXEK354CFM	205
LBOXXEK50ML	200
LBOXXEK5018CFB	205
LBOXXEK5018CFM	205
LBOXXEK505CFB	205
LBOXXEK505CFM	205
LBOXXEK6022CFB	205
LBOXXEK6022CFM	205
LBOXXEK60IDCFB	205
LBOXXEK60IDCFM	205
LBOXXEK60UNVCFB	205
LBOXXEK60UNVCFM	205
LBOXXES20CFB	205
LBOXXES20CFM	205
LBOXXES32CFB	205
LBOXXES32CFM	205
LBOXXES32FCFB	205
LBOXXES32FCFM	205
LBOXXKL18	541
LBOXXLS50FLEXCFB	205
LBOXXLS50FLEXCFM	205
LBOXXMINIK3	203
LBOXXMINIK3014K	204
LBOXXMINIK304K	204
LBOXXMINIK306K	204
LGL1	494
LGL3	494
LGLB1EU	494
LGML1	495
LS50FLEXCFB	439
LS50FLEXCFM	439
LS60L	438
M154	338
M16	338
M22154	342
M2216	342
M22610	342
M50154	326
M50610	326
M610	338
MC10	339
MC2210	345
MC2235	345
MC224	345
MC35	339
MC4	339
MCK1010	122
MCK1016	122
MCK1025	122
MCK120120	123
MCK150150	123
MCK185185	123
MCK2550	122
MCK3535	122
MCK3570	122



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
MCK3595	123	R2270	341	RU22185150	344	SK43L	193
MCK5050	122	R2295	341	RU22240185	344	SK43NB	188
MCK7095	123	R22SET	341	RU22300240	344	SK45B	186
MK18	195	R25	337	RU223525	344	SK47B	187
MK210L	194	R35	337	RU225035	344	SK4L	193
MK22	195	R50	337	RU227050	344	SK50B	190
MK220L	194	R501	326	RU229570	344	SK65B	189
MK230B507	191	R502	326	RU240185	339	SK65L	195
MK230L	194	R505	326	RU3525	339	SK82P	192
MK55	194	R6	337	RU5035	339	SK82S	192
MKKP1	196	R70	337	RU7050	339	SKP1	242
MKU	196	R95	337	RU9570	339	SKP6	242
N2210	342	RAL1	491	S18	412	SKR1204	131
N2216	342	RAL2	491	SAK10	120	SKR1501504	131
N2225	342	RAL3	491	SAK11	120	SKR1503	132
N2235	342	RAL4	492	SAK12	120	SKR1504	131
N2250	342	RAL40	492	SAK13	120	SKR150504	131
NC100EP	604	RALB1EU	492	SAK14	120	SKR1854	131
NG2115	493	RALB2EU	493	SAK15	120	SKV10	32
NG2230	493	RAML1	493	SAK16	120	SKV1525	32
PHD2	485	RH12050	68	SAK17	120	SKV16	32
PK1000	319	RH12070	68	SAK18	120	SKV25	32
PK12042	312	RH12095	68	SAK19	120	SKV35	32
PK120U	314	RH150120	68	SAK20	120	SKV4	32
PK18	306	RH15070	68	SAK21	120	SKV50	32
PK22	308	RH15095	68	SAK22	120	SKV6	32
PK252	316	RH185120	68	SAK23	120	SLSN34	436
PK45	318	RH185150	68	SAK24	120	SR106	30
PK60ID	311	RH18595	68	SAK25	120	SR108	30
PK60UNV	474	RH240120	68	SAK30	121	SR166	30
PK60VP	310	RH240150	68	SAK31	121	SR168	30
PK60VPFT	310	RH240185	68	SAK32	121	SR256	30
Q10	338	RH2510	68	SAK33	121	SR258	30
Q16	338	RH2516	68	SAK34	121	SR3510	30
Q2210	343	RH300150	68	SAK35	121	SR356	30
Q2216	343	RH300185	68	SAK36	121	SR358	30
Q2225	343	RH300240	68	SAK37	121	SR5010	30
Q2235	343	RH3510	68	SAK38	121	SR506	30
Q2250	343	RH3516	68	SAK39	121	SR508	30
Q2270	343	RH3525	68	SAK40	121	SR65	30
Q25	338	RH400185	68	SAK41	121	SR66	30
Q35	338	RH400240	68	SAK43	121	SSG105	407
Q50	338	RH400300	68	SAK44	121	SSG65	407
Q501	326	RH5016	68	SAK45	121	SSGG105	407
Q70	338	RH5025	68	SAK46	121	SSGG85	407
R10	337	RH5035	68	SAK47	121	ST11B	181
R120	337	RH7025	68	SB501	327	ST12B	182
R150	337	RH7035	68	SDG105	403	ST13B	183
R16	337	RH7050	68	SDG45	400	ST15B	181
R185	337	RH9535	68	SDG55	401	ST1705	79
R2210	341	RH9550	68	SDG852	402	ST1710	79
R22120	341	RH9570	68	SDK105	403	ST1715	79
R22150	341	RU10	339	SDK120	404	ST1716	79
R2216	341	RU12095	339	SDK65	401	ST1716IS	77
R22185	341	RU150120	339	SDK85	402	ST1717	79
R22240	341	RU16	339	SK303P	187	ST1717IS	77
R2225	341	RU185150	339	SK303S	188	ST1718	79
R22300	341	RU2210	344	SK30B	185	ST1718IS	77
R2235	341	RU2212095	344	SK30L	193	ST1719	79
R2250	341	RU22150120	344	SK32B	186	ST1719IS	77
R226	341	RU2216	344	SK32L	193	ST1720	79



Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page
ST1720IS	77	SV306AKV	127	UA12TKL	478	VHR16	88
ST1721	79	SV306V	127	UA18	478	VHR185	88
ST1721IS	77	SV307AKNL	125	UA22	478	VHR1853	90
ST1722	79	SV307V	125	UA5	478	VHR1854	91
ST1722IS	77	SV308	125	UA6P	478	VHR240	88
ST1B	181	SV309	126	UC26	478	VHR2403	90
ST21B	180	SV309AK	126	UC40	478	VHR2404	91
ST221215	345	SV309AKV	126	UCAC107	478	VHR25	88
ST2220	345	SV309V	126	UCACSR	478	VHR300	88
ST2246	345	SV310	126	UCBC110	478	VHR35	88
ST228	345	SV310AK	126	UCBC120	478	VHR353	90
ST22B	180	SV310AKV	126	UCBC150	478	VHR354	91
ST23B	180	SV310V	126	UCBC85	478	VHR400	88
ST2B	182	SV311AKNL	126	UCD3215	478	VHR50	88
ST31B	182	SV312AKNL	126	UCD3515	478	VHR503	90
ST32B	183	SV312AKNLV	126	UCD3575	478	VHR504	91
ST33B	184	SV315	126	UCF	478	VHR70	88
ST3B	183	SV315V	126	UCM10	478	VHR703	90
ST5L	185	SV319AKNLV	126	UCM12	478	VHR704	91
ST9698	148	SV320	126	UCM5	478	VHR95	88
ST9708	148	SV320V	126	UCM6	478	VHR953	90
ST9718	148	SV35	31	UCM8	478	VHR954	91
ST9728	148	SV4	31	UCN2980	478	ZAE10	340
ST9738	148	SV400	128	UCUNC12	478	ZAE16	340
STV10	31	SV405V	128	UCUNC14	478	ZAE2210	346
STV1525	31	SV410	128	UCUNC38	478	ZAE2216	346
STV16	31	SV410AK	128	UPD6	478	ZAE224	346
STV25	31	SV420	128	VHD120	89	ZAE226	346
STV35	31	SV420AK	128	VHD1203	90	ZAE4	340
STV4	31	SV420V	128	VHD1204	91	ZAE6	340
STV50	31	SV430	129	VHD150	89	ZAES10	340
STV6	31	SV430AK	129	VHD1503	90	ZAES16	340
SV10	31	SV440	129	VHD1504	91	ZAES2210	346
SV100	124	SV440AK	129	VHD16	89	ZAES2216	346
SV1525	31	SV50	31	VHD185	89	ZAES224	346
SV16	31	SV6	31	VHD1853	90	ZAES226	346
SV200	124	T15	496	VHD1854	91	ZAES4	340
SV200BK	124	TG3	495	VHD240	89	ZAES6	340
SV25	31	THK120	312	VHD2403	90	ZST3	496
SV300	125	THK18	306	VHD2404	91	ZST4	496
SV300V	125	THK22	308	VHD25	89		
SV301	125	TK95	231	VHD300	89		
SV301AK	125	TT2	196	VHD35	89		
SV301AKV	125	TT4	196	VHD353	90		
SV301V	125	TV10	23	VHD354	91		
SV302	125	TV120	23	VHD400	89		
SV302AK	125	TV15	23	VHD50	89		
SV302AKV	125	TV150	23	VHD503	90		
SV302V	125	TV16	23	VHD504	91		
SV303	125	TV185	23	VHD70	89		
SV303AK	125	TV2.5	23	VHD703	90		
SV303AKNL	125	TV240	23	VHD704	91		
SV303V	125	TV25	23	VHD95	89		
SV304AKNL	125	TV35	23	VHD953	90		
SV304AKNLV	125	TV4	23	VHD954	91		
SV305	127	TV50	23	VHR120	88		
SV305AK	127	TV6	23	VHR1203	90		
SV305AKV	127	TV70	23	VHR1204	91		
SV305V	127	TV95	23	VHR150	88		
SV306	127	TW150	495	VHR1503	90		
SV306AK	127	UA12P	478	VHR1504	91		



# Legend

## Overview of our pictograms

### ▶ Connecting material

Tubular cable lugs and connectors blue connection – Cu	Tubular cable lugs and connectors – Ni	Compression cable lugs and connectors acc. to DIN – Al	Cable end-sleeves
Tubular cable lugs and connectors – Cu, standard type	Compression cable lugs and connectors acc. to DIN – Cu	Compression cable lugs and connectors for Aldrey cables	Twin cable end-sleeves
Insulated cable lugs and connectors; standard type	Compression cable lugs, double crimp – Cu	Compression cable lugs and connectors for Al/St cables	Insulated cable connections
Tubular cable lugs and connectors for fine stranded conductors	Solderless terminals, connectors and pin terminals acc. to DIN – Cu	Compression cable lugs and connectors – Al/Cu	Non-insulated receptacles
Tubular cable lugs and connectors for solid conductors	Insulated solderless terminals	C-clamps	
Tubular cable lugs and connectors – stainless steel	Sleeves for compacted conductors and sector shaped conductors – Cu	H-clamps	

### ▶ Type of cables

Solid conductor (class 1 according acc. to DIN EN 60228)	Fine stranded conductor (class 5 acc. to DIN EN 60228)	Solid sector shaped conductor 90 ° (class 1 acc. to DIN EN 60228)	Conductor for overhead lines (DIN EN 50182) made of aluminium / steel
Multi-stranded conductor (class 2 acc. to DIN EN 60228)	Superfine stranded conductor (class 6 acc. to DIN EN 60228)	Compacted multi-stranded sector shaped conductor 120 ° (class 2 acc. to DIN EN 60228)	Copper conductor for overhead lines (DIN 48201-1) and aluminium or aluminium alloy conductors (DIN EN 50182)
Compacted multi-stranded conductor (class 2 acc. to DIN EN 60228)	Solid sector shaped conductor 120 ° (class 1 acc. to DIN EN 60228)	Compacted multi-stranded sector shaped conductor 90 ° (class 2 acc. to DIN EN 60228)	

### ▶ Crimping profiles

Hexagonal crimping	Roll-crimping	Oval crimping	Quad-point indent crimping
Round crimping	Indent crimping	Four point crimping	Trapezoid crimping
Double indent crimp	Special trapezoid crimping	Indent crimping cable end-sleeves	
Gas-tight oval crimping	Square crimping	Indent crimping	

### ▶ Crimping tools

Centering system	Indent crimping	SYNC Synchronised die selection
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### ▶ Measuring instruments ▶ Test mark

Measuring Category I	TRUE RMS TRUE RMS effective value measurement	VDE	DET NORSKE VERITAS + German Lloyd
Measuring Category II	Lifetime Warranty	IEC	Insulated acc. to IEC 60900
Measuring Category III		CSA	CE
Measuring Category IV		UL US	GS





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