# Cutting

**Cutting**

**B**

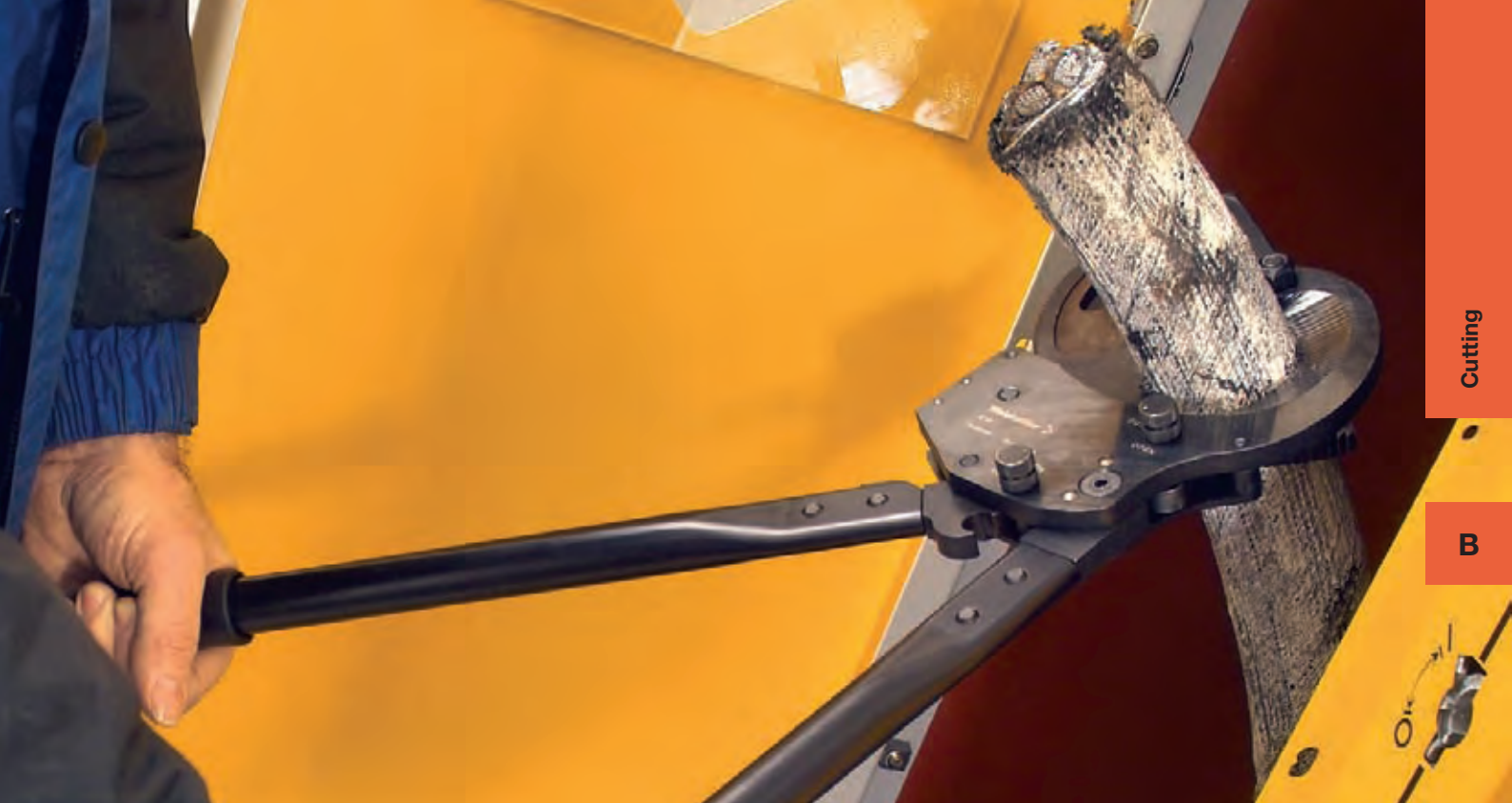# Cutting

A large number of cables and conductors in many different types and designs are used to connect electrical and electronic components. The cables and wires must be accurately prepared for the various types of connection. The quality of the cutting process is therefore of critical importance. Mechanical efficiency together with the special cutting pattern reduces the manual force required to a minimum.

Weidmüller is a specialist in the cutting of copper or aluminium cables. The product selection ranges from cutting tools for small cross-sections (with direct transmission of force) to cutting tools for large diameters. Weidmüller's wide range of cutting tools fulfils all the criteria for professional cable preparation. The demands Weidmüller makes of its products can be summarised simply: a smooth, straight cut without deforming the conductor. Users profit directly from this philosophy, whilst maintaining ease of use.

At Weidmüller the term "cutting" refers to the severing of cables, wires and conductors of copper or aluminium with a tool appropriate for the application.

The requirement for all cutting tools is to perform a smooth, straight cut without deforming the conductor.

According to **DIN 8588**, experts differentiate between shear cutting, wedge-action cutting, tearing and breaking.

Shear cutting is employed particularly in the cutting of cables, wires and conductors. Cutting tools with cross blades should perform an oblique cut and operate without play.
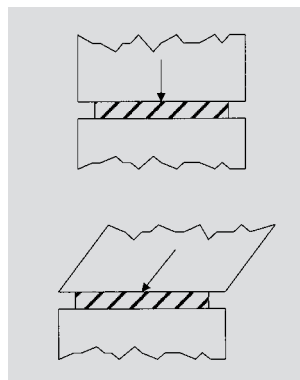
The essential quality characteristics for professional cutting tools are a cutting edge shape which is suited to, and optimised for, the corresponding application, so that the manual forces required for cutting remain low. This allows single-handed operation.

Tools by Weidmüller comply with all requirements imposed on professional cutting tools.

### Clean cut



Insulation

Conductor

An **"unclean" cut** may have the following appearance:



Conductor sheared off       Conductor pulled out       Squeezed cable

### Movement of the blades

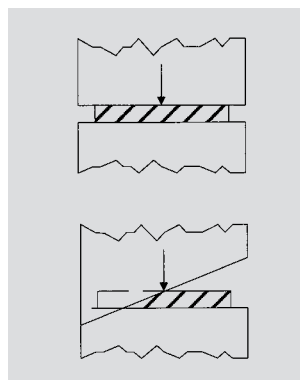We differentiate between two basic cutting processes:
• Push cut
• Draw cut



In **push cut**, the cutting movement is perpendicular between tool and workpiece.



In **draw cut**, the cutting movement is oblique to the tool.
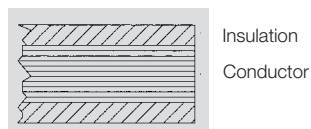
### Position of the blades



In **position 1** the blades act directly and over the whole length, i.e. considerable force is required.
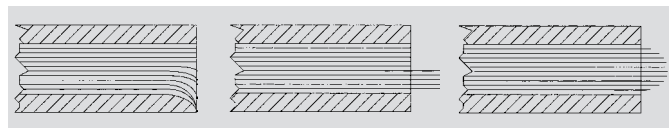


In **position 2**, the blades cross as in a pair of scissors, the cut is therefore "offset" and requires less force.

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## Cutting tools

- Cutting formation for different cable sizes increases the quality of the cuts for smaller cross-sections
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!
- Cutting without deformation of the conductor

### KT 8

max.   8 mm

max. 16 mm²

max. 16 mm²

max. 16 mm²

### KT 12

max. 12 mm

max. 16 mm²

max. 25 mm²

max. 35 mm²

## Technical data

| Max. cutting performance, copper cable | | KT8 | KT12 |
|---|---|---|---|
| Solid (max. conductor cross-section) | mm²/- | 16 / 6 | 16 / 6 |
| Stranded (max. conductor cross-section) | mm²/- | 16 / 6 | 25 / 3 |
| Flexible (max. conductor cross-section) | mm²/- | 16 / 6 | 35 / 2 |
| Flexible, stranded (max. conductor diameter) | mm | 8 | 12 |
| **Max. cutting performance, aluminium cable** | | | |
| Stranded (max. conductor cross-section) | mm²/- | 16 / 6 | 25 / 6 |
| Stranded (max. conductor diameter) | mm | 8 | 8 |
| solid | mm² | 16 | 25 |
| **Data / telephone / control cable** | | | |
| Max. outer diameter | mm | 8 | 12 |
| **Tool data** | | | |
| Length / Width / Height | mm | 165 / 65 / 25 | 215 / 66 / 28 |
| Weight | g | 180 | 300 |
| **Note** | | Tool closed | Tool closed |

## Ordering data

| Version | | | |
|---|---|---|---|

| Type | Qty | Order No. |
|---|---|---|
| KT 8 | 1 | 9002650000 |

| Type | Qty | Order No. |
|---|---|---|
| KT 12 | 1 | 9002660000 |

| Note | | | |
|---|---|---|---|

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## Cutting tools

- Easy handling because of automatic opening
- Safety lock reduces risk of injury
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

### KT 20

⌀ max. 20 mm

● max. 16 mm²

◉ max. 35 mm²

◉ max. 70 mm²

## Technical data

| Max. cutting performance, copper cable | | KT20 |
|---|---|---|
| Solid (max. conductor cross-section) | mm²/- | 16 / 6 |
| Stranded (max. conductor cross-section) | mm²/- | 35 / 2 |
| Flexible (max. conductor cross-section) | mm²/- | 70 / 2/0 |
| Flexible, stranded (max. conductor diameter) | mm | 20 |
| **Max. cutting performance, aluminium cable** | | |
| Stranded (max. conductor cross-section) | mm²/- | 70 / 2/0 |
| Stranded (max. conductor diameter) | mm | 20 |
| solid | mm² | 35 |
| **Data / telephone / control cable** | | |
| Max. outer diameter | mm | 20 |
| **Tool data** | | |
| Length / Width / Height | mm | 215 / 66 / 29 |
| Weight | g | 400 |
| **Note** | | Tool closed |

## Ordering data

| Version |
|---|
|  |

| Type | Qty | Order No. |
|---|---|---|
| KT 20 | 1 | 9002300000 |

| Note |
|---|
|  |

**Specifying** „solid-core aluminium cable" corresponds to sector-shaped conductor with individual strands

## Front cable cutter

- Can be used in confined spaces wherever cables need to be divided.
- Easy handling
- Minimal hand force required
- Release option in every cutting position
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

### KTF 25



⌀ Cu + Al: max. 25 mm

Cu: max. 120 mm²
Al: max. 150 mm²

Cu: max. 120 mm²

### KTF 36



⌀ Cu + Al: max. 35 mm

Cu: max. 300 mm²
Al: max. 300 mm²

Cu: max. 300 mm²

## Technical data

| | | KTF 25 | KTF 36 |
|---|---|---|---|
| **Max. cutting performance, copper cable** | | | |
| Stranded (max. conductor cross-section) | mm²/kcmil | 120 / 250 | 300 / 600 |
| Flexible (max. conductor cross-section) | mm²/kcmil | 120 / 250 | 300 / 600 |
| Flexible, stranded (max. conductor diameter) | mm | 25 | 35 |
| Copper sector cable | | | |
| **Max. cutting performance, aluminium cable** | | | |
| Stranded (max. conductor cross-section) | mm²/kcmil | 150 / 300 | 300 / 600 |
| Stranded (max. conductor diameter) | mm | 25 | 35 |
| Aluminium sector cable | | | |
| **Data / telephone / control cable** | | | |
| Max. outer diameter | mm | 25 | 35 |
| **Tool data** | | | |
| Length / Width / Height | mm | 245 / 80 / 40 | 330 / 100 / 49 |
| Weight | g | 900 | 1400 |
| **Note** | | Tool closed | Tool closed |

## Ordering data

| Version | | | |
|---|---|---|---|

| Type | Qty | Order No. |
|---|---|---|
| KTF 25 | 1 | **9002180000** |

| Type | Qty | Order No. |
|---|---|---|
| KTF 36 | 1 | **9002190000** |

| Note | | | |
|---|---|---|---|

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## Cable cutter

- One-hand operation
- Easy handling
- Minimal hand force required
- Release option in every cutting position
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

### KT 45 R



⊘ Cu + Al: max. 45 mm

⊛ Cu: max. 300 mm²
    Al:  max. 400 mm²

⊛ Cu: max. 400 mm²

### KT 55



⊘ Cu + Al: max. 55 mm

⊛ Cu: max. 500 mm²
    Al:  max. 500 mm²

⊛ Cu: max. 500 mm²



## Technical data

| Max. cutting performance, copper cable | | KT 45 R | KT 55 |
|---|---|---|---|
| Stranded (max. conductor cross-section) | mm²/kcmil | 300 / 600 | 500 / 1000 |
| Flexible (max. conductor cross-section) | mm²/kcmil | 400 / 800 | 500 / 1000 |
| Flexible, stranded (max. conductor diameter) | mm | 45 | 55 |
| Copper sector cable | | 3 x 70 SM | 3 x 150 SM |
| **Max. cutting performance, aluminium cable** | | | |
| Stranded (max. conductor cross-section) | mm²/kcmil | 400 / 800 | 500 / 1000 |
| Stranded (max. conductor diameter) | mm | 45 | 55 |
| Aluminium sector cable | | 4 x 70 SE | 4 x 150 SE |
| **Data / telephone / control cable** | | | |
| Max. outer diameter | mm | 45 | 55 |
| **Tool data** | | | |
| Length / Width / Height | mm | 290 / 40 / 85 | 365 / 45 / 115 |
| Weight | g | 740 | 1450 |
| **Note** | | | |

## Ordering data

| Version | | | |
|---|---|---|---|

| Type | Qty | Order No. |
|---|---|---|
| KT 45 R | 1 | **9202040000** |

| Type | Qty | Order No. |
|---|---|---|
| KT 55 | 1 | **9202060000** |

| Note | |
|---|---|

The dimensions of the cable cutter refer to the delivery condition, i.e. the point of the hinged blade parallel to the fixed blade.

The dimensions of the cable cutter refer to the delivery condition, i.e. the point of the hinged blade parallel to the fixed blade.

# Cable cutter

## Cable cutter

- Easy handling
- Minimal hand force required
- Release option in every cutting position
- Not suitable for steel wires, steel-armoured cables, aluminium alloys and hard-drawn copper conductors!

## KT 80





⌀ Cu + Al: max. 80 mm

⊙ Cu: max.   630 mm²
Al:   max. 1000 mm²

⊛ Cu: max. 630 mm²

## Technical data

| Max. cutting performance, copper cable | | KT 80 |
|---|---|---|
| Stranded (max. conductor cross-section) | mm²/kcmil | 630 / 1260 |
| Flexible (max. conductor cross-section) | mm²/kcmil | 630 / 1260 |
| Flexible, stranded (max. conductor diameter) | mm | 80 |
| Copper sector cable | | 3 x 240 SM |
| **Max. cutting performance, aluminium cable** | | |
| Stranded (max. conductor cross-section) | mm²/kcmil | 1000 / 2000 |
| Stranded (max. conductor diameter) | mm | |
| Aluminium sector cable | | 4 x 240 SE |
| **Data / telephone / control cable** | | |
| Max. outer diameter | mm | 80 |
| **Tool data** | | |
| Length / Width / Height | mm | 675 / 55 / 175 |
| Weight | g | 3240 |
| **Note** | | |

## Ordering data

| Version | | | |
|---|---|---|---|

| Type | Qty | Order No. |
|---|---|---|
| KT 80 | 1 | **9202080000** |

| Note | |
|---|---|

The dimensions of the cable cutter refer to the delivery condition, i.e. the point of the hinged blade parallel to the fixed blade.

## Cutting and releasing tool

Special release tool for the Weidmüller W-Series terminal connectors.

### WAW 1

**Notching tool**



Tool for releasing poles from WQV 2.5 to WQV 35 cross connections used in Weidmüller W-Series terminal connectors.

### WAW 2

**Notching tool**



Tool for punching out the cross-connection windows of the Weidmüller W-Series terminal connectors
WTR 2.5 disconnect terminal
WSI 6 fuse terminal
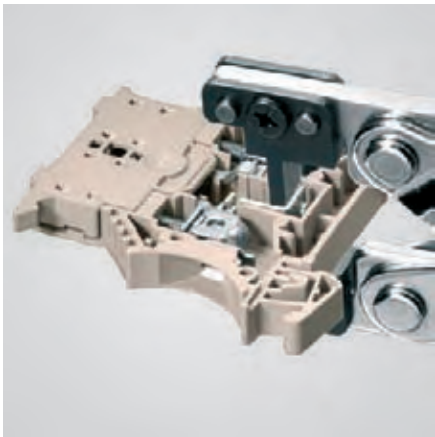


## Technical data

| | | WAW 1 | WAW 2 |
|---|---|---|---|
| Length | mm | 167 | 205 |
| Weight | g | 227 | 338 |
| **Note** | | | |

## Ordering data

| Version | Type | Qty | Order No. | Type | Qty | Order No. |
|---|---|---|---|---|---|---|
| | WAW 1 NEUTRAL | 1 | **9004500000** | WAW 2 | 1 | **9004510000** |
| **Note** | | | | | | |

**Cutting**

**B**

## Cutting and releasing tool

Special cutting tool for clean pinch-free cutting of Weidmüller Z-Series cross-connections

### KT ZQV

**Cutting tool**



Cutting tool for clean cutting of Weidmüller Z-Series cross-connections



## Technical data

|  |  | KT ZQV |
|---|---|---|
| Length | mm | 215 |
| Weight | g | 300 |
| **Note** | | |

## Ordering data

| Version | | | |
|---|---|---|---|

| Type | Qty | Order No. |
|---|---|---|
| KT ZQV | 1 | **9002170000** |

| **Note** | |
|---|---|

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# Mounting rail cutter

## TSLD
**Terminal rail cutting and punching tool**



Hand-operated mounting rail cutter for cutting and perforating DIN mounting rails

• Cutting with no burrs or waste
• Length end stop (1000 mm) is included in delivery
• Table-top unit for mounting on workbench or similar work places



Copper earthing bar



TS 32 mm according to EN 50035 (s = 1.5 mm)



TS 15/5.5 mm according to EN 50045 (s = 1.0 mm)



TS 35/7.5 mm according to EN 50022 (s = 1.0 mm)



TS 35/15 mm according to EN 50022 (s = 1.5 mm)

## Technical data

| | | TSLD |
|---|---|---|
| Width | mm | 205 |
| Length | mm | 270 |
| Height | mm | 200 |
| Weight | g | 19000 |
| Note | | Technical data without lever and length end stop |

## Ordering data

| Version | | |
|---|---|---|

| Type | Qty | Order No. |
|---|---|---|
| TSLD | 1 | 9918700000 |

| Note | |
|---|---|

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B.11

## Hydraulic sheet holes

### IE-KO-HAT



- Pressure-relief valve protects against overload
- Cylinder head angled 90°
- Angled head, 360° turnable
- Ergonomic handle springs back by itself
- Waste pieces no longer become jammed thanks to the three-way splitting
- Hydraulic punch made from high-strength aluminium (approx. 40 % weight savings)

## Technical data

| Maximum steel-sheet punching performance | | IE-KO-HAT |
|---|---|---|
| Round holes up to | Ø 85 mm | 2.0 mm F = 370 N/mm$^2$ |
| Round holes up to | Ø 64 mm | 3.0 mm F = 370 N/mm$^2$ |
| Square holes up to | 68 x 68 mm | 2.0 mm F = 370 N/mm$^2$ |
| Rectangular holes up to | 36 x 112 mm | 2.0 mm F = 370 N/mm$^2$ |
| **Maximum stainless-steel-sheet punching performance** | | |
| Round holes up to | Ø 64 mm | 2.5 mm F = 600 N/mm$^2$ |
| **Tool data** | | |
| Length / width / height | mm | 290/120/70 |
| Weight | kg | 1.9 |
| Punching force | kN | 75 |
| Max. operating pressure | bar | 650 |
| Including accessories (contents) | | 1 hydraulic screw Ø 19.0 mm |
| | | 1 hydraulic screw Ø 19 x 9.5 mm |
| | | 1 HSS pre-drill Ø 10 mm |
| | | 1 spacer nut set (3-part) |
| | | 1 bridge |
| **Information** | | |

## Ordering data

| Version | | Type | Qty. | Order No. |
|---|---|---|---|---|
| | | IE-KO-HAT | 1 | **1966810000** |
| **Information** | | | | |

## Accessories

| | Type | Qty. | Order No. |
|---|---|---|---|
| | Tension screw KOBBS 9.5 x 50 | 1 | **9205030000** |
| | Tension screw KOBBS 19 x 55 | 1 | **9205040000** |
| | Tension screw KOBBS 19 x 75 | 1 | **9204780000** |
| **Information** | Splitting stamp on the next page | | |

**Custom stamp for Industrial Ethernet connections**

| Type | Description | Dimensions | Qty. | Order No. |
|---|---|---|---|---|
| IE-KOK-V1 | Custom shape for Bajonet 01 metal | Ø 27 mm x single-sided 25.9 mm | 1 | 1966780000 |
| IE-KOK-V4 | Custom shape for Push Pull V04 plastic | Ø 23.2 mm x double-sided 20.2 mm | 1 | 1966790000 |
| IE-KOK-V5 | Custom shape for RockStar® V05 metal | 22.0 x 22.0 mm | 1 | 9204790000 |

**Rectangular splitting stamp for heavy-duty connectors**

| Type | Description | Dimensions | Qty. | Order No. |
|---|---|---|---|---|
| KOK 52 x 36 | Splitting stamp for 6-pole heavy-duty connectors | 52.0 x 36 mm | 1 | 9204820000 |
| KOK 65 x 36 | Splitting stamp for 10-pole heavy-duty connectors | 65.0 x 36 mm | 1 | 9204830000 |
| KOK 86 x 36 | Splitting stamp for 16-pole heavy-duty connectors | 86.0 x 36 mm | 1 | 9204850000 |
| KOK 91 x 36 | Splitting stamp for 16-pole heavy-duty connectors | 91.0 x 36 mm | 1 | 9204860000 |
| KOK 112 x 36 | Splitting stamp for 24-pole heavy-duty connectors | 112.0 x 36 mm | 1 | 9204870000 |

**Rectangular splitting stamp for switches**

| Type | Description | Dimensions | Qty. | Order No. |
|---|---|---|---|---|
| KOK 46 x 46 | Rectangular splitting stamp for switches | 46.0 x 46.0 mm | 1 | 9204810000 |
| KOK 68 x 68 | Rectangular splitting stamp for switches | 68.0 x 68.0 mm | 1 | 9204840000 |

**Round splitting stamp for metric cable glands**

| Type | Description | Dimensions | Qty. | Order No. |
|---|---|---|---|---|
| KOS M 16 | Round splitting stamp for M16 cable glands | Ø 16.2 mm | 1 | 9204880000 |
| KOS M 20 | Round splitting stamp for M20 cable glands | Ø 20.4 mm | 1 | 9204950000 |
| KOS M 25 | Round splitting stamp for M25 cable glands | Ø 25.4 mm | 1 | 9204900000 |
| KOS M 32 | Round splitting stamp for M32 cable glands | Ø 32.5 mm | 1 | 9204910000 |
| KOS M 40 | Round splitting stamp for M40 cable glands | Ø 40.5 mm | 1 | 9204920000 |

**Round splitting stamp for high-strength cable glands**

| Type | Description | Dimensions | Qty. | Order No. |
|---|---|---|---|---|
| KOS PG 9 | Round splitting stamp for PG9 cable glands | Ø 15.2 mm | 1 | 9204930000 |
| KOS PG 11 | Round splitting stamp for PG11 cable glands | Ø 18.6 mm | 1 | 9204940000 |
| KOS PG 13 | Round splitting stamp for PG13 cable glands | Ø 20.4 mm | 1 | 9204950000 |
| KOS PG 16 | Round splitting stamp for PG16 cable glands | Ø 22.5 mm | 1 | 9204960000 |
| KOS PG 21 | Round splitting stamp for PG21 cable glands | Ø 28.3 mm | 1 | 9204970000 |
| KOS PG 29 | Round splitting stamp for PG29 cable glands | Ø 37.0 mm | 1 | 9204980000 |
| KOS PG 36 | Round splitting stamp for PG36 cable glands | Ø 47.0 mm | 1 | 9204990000 |

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**Electrician's knife / Electrician's scissors**

**B**

## SLICER
**Electrician's knife**

- Knife with plastic body and two blades
- Electrician's knife with two notches and blade lock
- curved blade partially finely serrated
- rustproof

**Ordering data**

| Type | Qty | Order No. |
|---|---|---|
| SLICER | 1 | 9041600000 |

## SLICER 1K
**Electrician's knife**

- Knife with plastic body and blade lock
- rustproof
- with round and triangular notches

**Ordering data**

| Type | Qty | Order No. |
|---|---|---|
| SLICER 1K | 1 | 9918160000 |

## CUTTY
**Cutter**

- With ergonomic handle
- In pouch

**Ordering data**

| Type | Qty | Order No. |
|---|---|---|
| CUTTY RED LINE | 1 | 9041520000 |

## SCISSOR 2K
**Electrician's scissors**

- With wire cutter
- Serrated cutting edge
- Rust-proof
- Soft-touch handle for firm grip

**Ordering data**

| Type | Qty | Order No. |
|---|---|---|
| SCISSOR 2 K | 1 | 9918230000 |

## SCISSOR 1K
**Electrician's scissors**

- With wire cutter
- Handle made from shockproof polyamide
- Cutting edges with high-gloss chromate finish

**Ordering data**

| Type | Qty | Order No. |
|---|---|---|
| SCISSOR 1 K | 1 | 9918690000 |

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