

Cable accessories

aluminum cable terminals, aluminium cable ferrules, copper cable terminals and ferrules
cable grips, cable ties, protective clamps, hydraulic and mechanical presses





- 2 Aluminum cable terminals**
- 2 2 KAm - Thin-walled terminals
- 3 DKA - Terminals acc. to DIN standard
- 3 DKAp - Leakproof terminals acc. to DIN standard



- 3 Non-standard terminals**
- 3 Terminals for 2 bolts
- 3 Terminals with prospect holes
- 3 Spade terminals



- 4 Aluminum cable ferrules**
- 4 2 ZA - Thin-walled ferrules
- 4 DZA - Ferrules acc. to DIN standard
- 4 DZAp - Ferrules with the partition acc. to DIN standard
- 5 DZRA - Reducing ferrules acc. to DIN standard
- 5 DZRAp - Reducing ferrules with the leakproof partition acc. to DIN standard
- 6 DZROAp - Reducing ferrules with the partition for MV cables of 10 ÷ 30 kV acc. to DIN standard
- 7 DZOA - Ferrules for MV cables of 10 ÷ 30kV acc. to DIN standard
- 7 DZOAp - Ferrules with the partition for MV cables of 10 ÷ 30kV acc. to DIN standard
- 7 ZLA - Full-tension notch type midspan connectors
- 8 ZLF, ZLFD - Full-tension notch type midspan connectors with spacer



- 8 Bolts for the oil terminations**
- 8 SG - Bolts for the oil terminations
- 8 DSG - Bolts for the oil terminat acc. to DIN standard



- 9 Copper cable terminals**
- 9 K - Terminals without galvanic coating
- 9 Ks - Tinned terminals
- 10 DK - Terminals acc. to DIN standard without galvanic coating
- 10 DKs - Tinned terminals acc. to DIN standard
- 10 DKX - Leakproof terminals acc. to DIN standard without galvanic coating
- 10 DKXS - Tinned leakproof terminals acc. to DIN standard
- 10 KU - Angular cable terminals 45°, without galvanic coating
- 10 KUs - Tinned angular cable terminals 45°
- 11 DKU - Angular cable terminals 45°, acc. to DIN standard without galvanic coating
- 11 DKUs - Tinned angular cable terminals 45°, acc. to DIN standard
- 11 KP - Angular cable terminals 90°, without galvanic coating
- 11 KPs - Tinned angular cable terminals 90°
- 11 DKP - Angular cable terminals 90°, acc. to DIN standard without galvanic coating
- 11 DKPs - Tinned angular cable terminals 90°, acc. to DIN standard
- 11 KW - Spade terminals without galvanic coating
- 11 KWs - Tinned spade terminals
- 12 KWI - Insulated tinned spade terminals, acc. to DIN standard
- 12 KO - Ring terminals without galvanic coating
- 12 KOs - Tinned ring terminals
- 12 KOZs - Tinned and soldered ring terminals



- 13 KOI - Insulated tinned ring terminals, acc. to DIN standard
- 14 NI - Partially insulated tinned female connectors acc. to DIN standard
- 14 NII - Fully insulated tinned female connectors acc. to DIN standard
- 14 WI - Partially insulated tinned male connectors acc. to DIN standard
- 14 NWI - Partially insulated tinned piggyback connectors acc. to DIN standard
- 15 H - Tinned sleeving terminals, not insulated, acc. to DIN standard
- 15 HI - Tinned sleeving terminals, insulated in required color, acc. to DIN standard
- 16 HI 2x - Tinned double sleeving terminals, insulated in required color, acc. to DIN standard
- 16 KBI - Insulated tinned terminals acc. to DIN standard with bolts
- 16 ZHI - Sets of insulated tinned sleeving terminals

17 Copper cable ferrules

- 17 Z - Ferrules without galvanic coating
- 17 Zs - Tinned ferrules
- 17 DZ - Ferrules acc. to DIN standard without galvanic coating
- 17 DZs - Tinned ferrules acc. to DIN standard
- 18 DZp - Ferrules with the partition acc. to DIN standard without galvanic coating
- 18 DZps - Tinned ferrules with the partition acc. to DIN standard
- 18 DZR - Reducing ferrules acc. to DIN standard without galvanic coating
- 18 DZRr - Tined reducing ferrules acc. to DIN standard
- 18 DZRp - Reducing ferrules acc. to DIN standard with leakproof partition - without galvanic coating
- 18 DZRps - Reducing ferrules acc. to DIN standard with leakproof partition - tinned
- 19 DZO - Ferrules for MV cables of 10 ÷ 30kV, acc. to DIN standard - without galvanic coating
- 19 DZOo - Ferrules for MV cables of 10 ÷ 30kV, acc. to DIN standard - tinned
- 19 DZOOp - Ferrules with the partition for MV cables of 10 ÷ 30kV, acc. to DIN standard - without galvanic coating
- 19 DZOps - Ferrules with the partition for MV cables of 10 ÷ 30kV, acc. to DIN standard - tinned
- 20 DZROp - Reducing ferrules with the partition, for MV cables of 10 ÷ 30kV, acc. to DIN standard - without galvanic coating
- 20 DZROps - Reducing ferrules with the partition, for MV cables of 10 ÷ 30kV, acc. to DIN standard - tinned
- 20 ZCS - Tinned ferrules with the partition
- 20 ZG - Ferrules for mining cables, without galvanic coating
- 20 ZGS - Tinned ferrules for mining cables
- 20 ZKI - Insulated butt connectors acc. to DIN standard
- 20 ZKIT - Connectors with shrinkable insulation with adhesive acc. to DIN standard





INDEX

21 Aluminum-copper cable terminals

21 DKAMp - Terminals with leakproof partition, acc. to DIN standard



21 Aluminum-copper cable ferrules

21 DZAM - Ferrules with leakproof partition, acc. to DIN standard
22 DZROAM - Ferrules for MV cables of 10 ÷ 30 kV, acc. to DIN standard



23 Aluminum-copper pins

23 DBAM - Aluminum-copper pins with leakproof partition, acc. to DIN standard



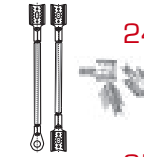
24 Aluminum-copper washers

24 PC - Aluminum-copper washers



24 Shield connectors

24 łE - With non-tinned conductor
24 KłE - Shield connection leads



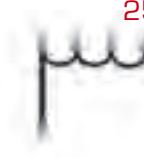
25 12-way thread terminal blocks for wires

25 Z12T - 12-way thread terminal blocks for wires



25 Wiring bridges with terminals

25 KP - Single bridges
25 KP 3 - Double bridges with the lead
25 KP 4 - Triple bridges with the lead



26 FLOP cable grips

26 FP - For flat conductors fastening
26 FO - Do przewodów okrągłych
26 KR1 - Pull apart pins
27 BFZ - Sets of cable grips



27 Quick assembly holders

27 USMP - Quick assembly holders for flat conductors
27 USMO - Quick assembly holders for round conductors
27 USMH - Hook quick assembly holders for pipes



27 Collective cable holders

27 UKZ - Collective cable holders



28 Cable hitching grips

28 UP - Cable hitching grips



28 All-purpose cable grips for cables and pipes

28 UKU-50 - UV resistant



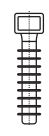
28 Cable ties

28 CT (white and black) - Cable ties
29 CTO - with assembly eye
29 CTZ - with snap grip
29 CTTZ - with outer identification plate
29 CTTW - with inner identification plate



30 Fastening elements for the CT cable ties

30 D 6 - Elements snap fastened in the hole of retaining construction
30 D 10 - Elements fastened in the hole drilled in the foundation
30 E 3 - Elements screwed down to the foundation with the aid of the screw
30 E 9 - Self-strick elements



31 Electro-insulating tapes



32 Cable glands

32 DR ... NP - Glands made of polyamide



33 Tools

33 List of tools - tables
36 NK80 - Head
36 SCH 6 - Insulation stripper and press in one
36 PMI 1-6 - Press
36 PMX-1 - Set
37 KR95 - Corrugator
37 PHRN46 - High speed hydraulic press
37 PH6 - Manual hydraulic press
37 PH4 - Manual hydraulic press
38 Assembling of cable terminals and ferrules



39 Vibroisolators UC 1



Aluminum cable terminals



Non-standard terminals are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals
- page no. 33

Application

Aluminum cable terminals find the application for the termination of round aluminum cores and sector - shaped conductors. They increase the safety and life of connection among others by decreasing of the wires and insulation's conductor overheating process appearing in case of terminals soldering. For the operation in rugged atmospherics conditions (moisture, fog, etc.) by the long-lasting and high current load as well as by paper insulated cables we recommend the KAp leakproof terminals and DKAp leakproof terminals with the partition. They guarantee higher safety of connection and blocking the saturant effluent from paper insulated cables.

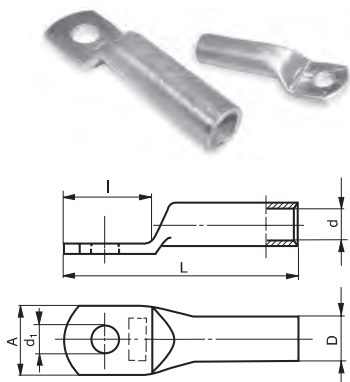
Assembling

In order to make the durable assembling of terminal, it should be pressed by using the suitable press (in case of sector cores - the core should be first formed round).

Technical data

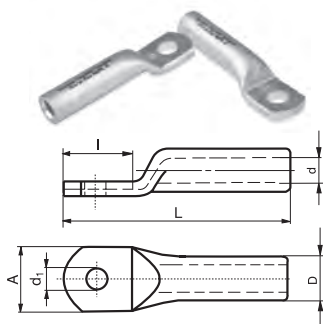
Accordance with DIN 46 329 standard concerns the tubular part. Material: aluminum pipe and bars drawing in the recrystallizing condition of E-Al grade PN-EN 573-3. DKA and DKAp terminals are protected inside by technical contact paste improved the connection quality. For the assurance of suitable plasticity of contact paste, the DKA terminals are packed separately one piece in one folie sack and next all together.

2 KAm - Thin-walled terminals



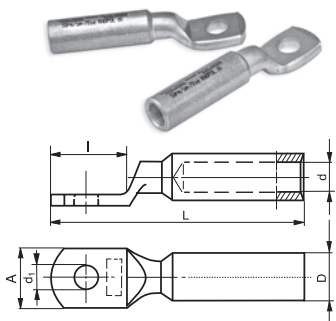
| Core cross section [mm²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|--------------------------|--------------|---------------|-----------------|------|----------------|-----|----|----|
| | | | D | d | d ₁ | L | l | A |
| 16 | 2 KAM 16/5 | 50 | 9,2 | 5,2 | 5,2 | 50 | 18 | 16 |
| 16 | 2 KAM 16/6 | 50 | 9,2 | 5,2 | 6,5 | 50 | 18 | 16 |
| 16 | 2 KAM 16/8 | 50 | 9,2 | 5,2 | 8,5 | 50 | 18 | 16 |
| 16 | 2 KAM 16/10 | 50 | 9,2 | 5,2 | 11 | 50 | 20 | 19 |
| 16 | 2 KAM 16/12 | 50 | 9,2 | 5,2 | 13 | 52 | 26 | 24 |
| 25 | 2 KAM 25/6 | 50 | 10,4 | 6,4 | 6,5 | 58 | 22 | 20 |
| 25 | 2 KAM 25/8 | 50 | 10,4 | 6,4 | 8,5 | 58 | 22 | 20 |
| 25 | 2 KAM 25/10 | 50 | 10,4 | 6,4 | 11 | 60 | 22 | 20 |
| 25 | 2 KAM 25/12 | 50 | 10,4 | 6,4 | 13 | 60 | 26 | 24 |
| 35 | 2 KAM 35/6 | 50 | 12 | 7,6 | 6,5 | 62 | 22 | 20 |
| 35 | 2 KAM 35/8 | 50 | 12 | 7,6 | 8,5 | 62 | 22 | 20 |
| 35 | 2 KAM 35/10 | 50 | 12 | 7,6 | 11 | 62 | 22 | 20 |
| 35 | 2 KAM 35/12 | 50 | 12 | 7,6 | 13 | 62 | 22 | 20 |
| 50 | 2 KAM 50/6 | 20 | 14 | 9,2 | 6,5 | 74 | 26 | 24 |
| 50 | 2 KAM 50/8 | 20 | 14 | 9,2 | 8,5 | 74 | 26 | 24 |
| 50 | 2 KAM 50/10 | 20 | 14 | 9,2 | 11 | 73 | 26 | 24 |
| 50 | 2 KAM 50/12 | 20 | 14 | 9,2 | 13 | 74 | 26 | 24 |
| 50 | 2 KAM 50/14 | 20 | 14 | 9,2 | 15 | 78 | 30 | 25 |
| 50 | 2 KAM 50/16 | 20 | 14 | 9,2 | 17 | 82 | 34 | 25 |
| 70 | 2 KAM 70/6 | 20 | 15,6 | 10,6 | 6,5 | 77 | 26 | 26 |
| 70 | 2 KAM 70/8 | 20 | 15,6 | 10,6 | 8,5 | 77 | 26 | 26 |
| 70 | 2 KAM 70/10 | 20 | 15,6 | 10,6 | 11 | 77 | 26 | 26 |
| 70 | 2 KAM 70/12 | 20 | 15,6 | 10,6 | 13 | 77 | 26 | 26 |
| 70 | 2 KAM 70/14 | 20 | 15,6 | 10,6 | 15 | 81 | 30 | 26 |
| 70 | 2 KAM 70/16 | 20 | 15,6 | 10,6 | 17 | 85 | 34 | 26 |
| 95 | 2 KAM 95/6 | 20 | 18 | 12,8 | 6,5 | 90 | 26 | 26 |
| 95 | 2 KAM 95/8 | 20 | 18 | 12,8 | 8,5 | 90 | 26 | 26 |
| 95 | 2 KAM 95/10 | 20 | 18 | 12,8 | 11 | 90 | 26 | 26 |
| 95 | 2 KAM 95/12 | 20 | 18 | 12,8 | 13 | 91 | 26 | 26 |
| 95 | 2 KAM 95/14 | 20 | 18 | 12,8 | 15 | 94 | 30 | 26 |
| 95 | 2 KAM 95/16 | 20 | 18 | 12,8 | 17 | 98 | 34 | 26 |
| 120 | 2 KAM 120/8 | 10 | 19,7 | 14,3 | 8,5 | 104 | 30 | 28 |
| 120 | 2 KAM 120/10 | 10 | 19,7 | 14,3 | 11 | 104 | 30 | 28 |
| 120 | 2 KAM 120/12 | 10 | 19,7 | 14,3 | 13 | 104 | 30 | 28 |
| 120 | 2 KAM 120/14 | 10 | 19,7 | 14,3 | 15 | 104 | 30 | 28 |
| 120 | 2 KAM 120/16 | 10 | 19,7 | 14,3 | 17 | 108 | 34 | 28 |
| 120 | 2 KAM 120/20 | 10 | 19,7 | 14,3 | 21 | 114 | 40 | 30 |
| 150 | 2 KAM 150/8 | 10 | 22 | 16,2 | 8,5 | 118 | 34 | 34 |
| 150 | 2 KAM 150/10 | 10 | 22 | 16,2 | 11 | 118 | 34 | 34 |
| 150 | 2 KAM 150/12 | 10 | 22 | 16,2 | 13 | 118 | 34 | 34 |
| 150 | 2 KAM 150/14 | 10 | 22 | 16,2 | 15 | 118 | 34 | 34 |
| 150 | 2 KAM 150/16 | 10 | 22 | 16,2 | 17 | 118 | 34 | 34 |
| 150 | 2 KAM 150/20 | 10 | 22 | 16,2 | 21 | 124 | 40 | 34 |
| 185 | 2 KAM 185/8 | 10 | 24 | 17,8 | 8,5 | 130 | 40 | 38 |
| 185 | 2 KAM 185/10 | 10 | 24 | 17,8 | 11 | 130 | 40 | 38 |
| 185 | 2 KAM 185/12 | 10 | 24 | 17,8 | 13 | 129 | 40 | 38 |
| 185 | 2 KAM 185/14 | 10 | 24 | 17,8 | 15 | 130 | 40 | 38 |
| 185 | 2 KAM 185/16 | 10 | 24 | 17,8 | 17 | 130 | 40 | 38 |
| 185 | 2 KAM 185/20 | 10 | 24 | 17,8 | 21 | 130 | 40 | 38 |
| 240 | 2 KAM 240/10 | 10 | 28,2 | 20,2 | 11 | 134 | 40 | 40 |
| 240 | 2 KAM 240/12 | 10 | 28,2 | 20,2 | 13 | 133 | 40 | 40 |
| 240 | 2 KAM 240/14 | 10 | 28,2 | 20,2 | 15 | 134 | 40 | 40 |
| 240 | 2 KAM 240/16 | 10 | 28,2 | 20,2 | 17 | 132 | 40 | 40 |
| 240 | 2 KAM 240/20 | 10 | 28,2 | 20,2 | 21 | 134 | 40 | 40 |

DKA - Terminals acc. to DIN standard



| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|-----|--------------|---------------|-----------------|------|----------------|-----|----|----|
| rm, sm | se | | | D | d | d ₁ | L | l | A |
| 16 | 25 | DKA 16/6 | 50 | 12,0 | 5,6 | 6,5 | 62 | 20 | 18 |
| 25 | 35 | DKA 25/8 | 50 | 12,0 | 6,8 | 8,5 | 72 | 22 | 18 |
| 35 | 50 | DKA 35/10 | 50 | 14,0 | 8,0 | 11,0 | 79 | 26 | 21 |
| 50 | 70 | DKA 50/10 | 20 | 16,0 | 9,8 | 11,0 | 85 | 26 | 25 |
| 70 | 95 | DKA 70/12 | 20 | 18,5 | 11,2 | 13,0 | 101 | 30 | 28 |
| 95 | 120 | DKA 95/12 | 20 | 22,0 | 13,2 | 13,0 | 105 | 30 | 32 |
| 120 | 150 | DKA 120/12 | 10 | 23,0 | 14,7 | 13,0 | 107 | 34 | 32 |
| 150 | 185 | DKA 150/16 | 10 | 25,0 | 16,3 | 17,0 | 123 | 34 | 35 |
| 185 | 240 | DKA 185/16 | 10 | 28,5 | 18,3 | 17,0 | 126 | 40 | 40 |
| 240 | 300 | DKA 240/16 | 10 | 32,0 | 21,0 | 17,0 | 136 | 45 | 45 |
| 300 | - | DKA 300/16 | 10 | 34,0 | 23,3 | 17,0 | 150 | 45 | 49 |
| 625 | - | DKA 625/20* | 1 | 52,0 | 35,0 | 21,0 | 177 | 42 | 71 |

rm - round bunched core, sm - segmental bunched core, se - segmental solid core.
 Remaining dimensions of rings are the same as in case of 2 KAm terminals.



DKAp - Leakproof terminals acc. to DIN standard

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|--------------|---------------|-----------------|------|----------------|-----|----|----|
| | | | D | d | d ₁ | L | l | A |
| 35 | DKAp 35/10 | 10 | 14,0 | 8,0 | 11,0 | 86 | 22 | 20 |
| 50 | DKAp 50/10 | 10 | 16,0 | 9,8 | 11,0 | 90 | 26 | 22 |
| 70 | DKAp 70/12 | 10 | 18,5 | 11,2 | 13,0 | 100 | 26 | 25 |
| 95 | DKAp 95/12 | 10 | 22,0 | 13,2 | 13,0 | 104 | 30 | 28 |
| 120 | DKAp 120/12 | 10 | 23,0 | 14,7 | 13,0 | 106 | 34 | 30 |
| 150 | DKAp 150/16 | 10 | 25,0 | 16,3 | 17,0 | 122 | 34 | 32 |
| 185 | DKAp 185/16 | 10 | 28,5 | 18,3 | 17,0 | 130 | 40 | 35 |
| 240 | DKAp 240/16 | 10 | 32,0 | 21,0 | 17,0 | 138 | 40 | 40 |

Remaining dimensions of rings are the same as in case of 2 KAm terminals.

Non-standard terminals



Non-standard terminals are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals - page no. 33



Terminals for 2 bolts



Terminals with prospect holes



Spade terminals

Material: aluminum, copper, others.

Type: thin wall, thick wall, acc. to DIN standard, leakproof type, with galvanic coating.

Shape: straight, angular 45 (nie wiem jak zrobił znaczek "stopni"), angular 90, others.

Length of tubular part for compression.

Diameter of bolt hole, alternatively radius and length of hole in case of longitudinal holes, spades.

Bolt holes spacing in case of two holes, other construction of prospect hole.

For more details please contact our Export dept.

Aluminum cable ferrules



Non-standard ferrules are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals
- page no. 33

Application

Aluminum cable ferrules find the application for connection of round aluminum cores and sector - shaped conductors of different core cross-sections. They increase the safety and life of connection. The ferrules marked with "O" letter can be use for 10 ÷ 30kV voltage.

Assembling

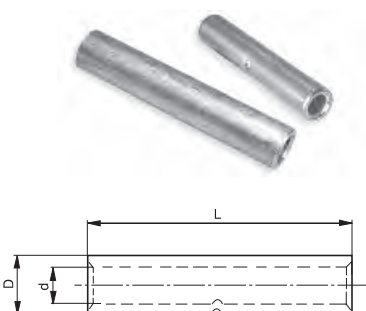
In order to make the durable assembling of ferrule, it should be pressed by using the suitable press (in case of sector cores - the core should be first formed round).

Technical data

Full accordance with DIN 46 267 standards of DZA type, in case of remaining ferrules - accordance with DIN standards concerns only the tubular parts. Material: aluminum pipe and bars drawing in the recrystallizing condition of E-Al grade PN-EN 573-3.

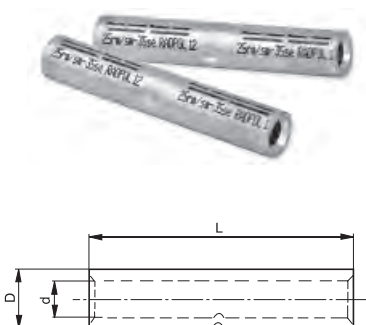
Special contact paste applied inside ferrules acc. to DIN standards improve the quality of the connection. For the assurance of suitable plasticity of contact paste, the ferrules are packed separately one piece in one folie sack.

2 ZA - Thin-walled ferrules



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|---------------|-----------------|------|-----|
| | | | D | d | L |
| 16 | 2 ZA 16 | 50 | 9,2 | 5,2 | 50 |
| 25 | 2 ZA 25 | 50 | 10,4 | 6,4 | 58 |
| 35 | 2 ZA 35 | 50 | 12,0 | 7,6 | 63 |
| 50 | 2 ZA 50 | 20 | 14,0 | 9,2 | 73 |
| 70 | 2 ZA 70 | 20 | 15,6 | 10,6 | 76 |
| 95 | 2 ZA 95 | 20 | 18,0 | 12,8 | 92 |
| 120 | 2 ZA 120 | 10 | 19,7 | 14,3 | 105 |
| 150 | 2 ZA 150 | 10 | 22,0 | 16,2 | 120 |
| 185 | 2 ZA 185 | 10 | 24,0 | 17,8 | 132 |
| 240 | 2 ZA 240 | 10 | 28,2 | 20,2 | 136 |

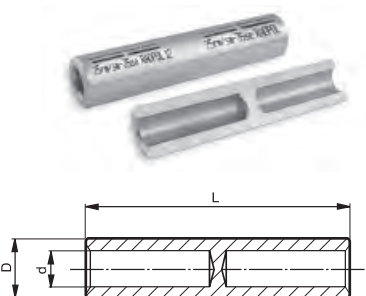
DZA - Ferrules acc. to DIN standard



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|---------------|-----------------|------|-----|
| | | | D | d | L |
| 16 | DZA 16 | 50 | 12,0 | 5,6 | 55 |
| 25 | DZA 25 | 50 | 12,0 | 6,8 | 70 |
| 35 | DZA 35 | 50 | 14,0 | 8,0 | 85 |
| 50 | DZA 50 | 20 | 16,0 | 9,8 | 85 |
| 70 | DZA 70 | 20 | 18,5 | 11,2 | 105 |
| 95 | DZA 95 | 20 | 22,0 | 13,2 | 105 |
| 120 | DZA 120 | 10 | 23,0 | 14,7 | 105 |
| 150 | DZA 150 | 10 | 25,0 | 16,3 | 125 |
| 185 | DZA 185 | 10 | 28,5 | 18,3 | 125 |
| 240 | DZA 240 | 10 | 32,0 | 21,0 | 145 |
| 300 | DZA 300 | 10 | 34,0 | 23,3 | 145 |
| 625 | DZA 625 | 1 | 52,0 | 35,0 | 210 |

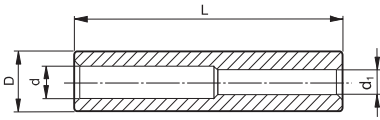
rm - round bunched core, sm - segmental bunched core, se - segmental solid core.

DZAp - Ferrules with the partition acc. to DIN standard



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|---------------|-----------------|------|-----|
| | | | D | d | L |
| 16 | DZAp 16 | 1 | 12,0 | 5,6 | 55 |
| 25 | DZAp 25 | 1 | 12,0 | 6,8 | 75 |
| 35 | DZAp 35 | 1 | 14,0 | 8,0 | 90 |
| 50 | DZAp 50 | 1 | 16,0 | 9,8 | 90 |
| 70 | DZAp 70 | 1 | 18,5 | 11,2 | 112 |
| 95 | DZAp 95 | 1 | 22,0 | 13,2 | 112 |
| 120 | DZAp 120 | 1 | 23,0 | 14,7 | 112 |
| 150 | DZAp 150 | 1 | 25,0 | 16,3 | 135 |
| 185 | DZAp 185 | 1 | 28,5 | 18,3 | 135 |
| 240 | DZAp 240 | 1 | 32,0 | 21,0 | 155 |

rm - round bunched core, sm - segmental bunched core, se - segmental solid core.

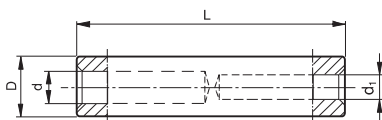


DZRA - Reducing ferrules acc. to DIN standard

| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | |
|---------------------------------------|---------|----------------|---------------|-----------------|------|----------------|-----|
| input | initial | | | D | d | d ₁ | L |
| 16 | 10 | DZRA 16 / 10 | 1 | 12,0 | 5,6 | 4,9 | 75 |
| 25 | 10 | DZRA 25 / 10 | 1 | 12,0 | 6,8 | 4,9 | 75 |
| 25 | 16 | DZRA 25 / 16 | 1 | 12,0 | 6,8 | 5,6 | 75 |
| 35 | 10 | DZRA 35 / 10 | 1 | 14,0 | 8,0 | 4,9 | 90 |
| 35 | 16 | DZRA 35 / 16 | 1 | 14,0 | 8,0 | 5,6 | 90 |
| 35 | 25 | DZRA 35 / 25 | 1 | 14,0 | 8,0 | 6,8 | 90 |
| 50 | 16 | DZRA 50 / 16 | 1 | 16,0 | 9,8 | 5,6 | 90 |
| 50 | 25 | DZRA 50 / 25 | 1 | 16,0 | 9,8 | 6,8 | 90 |
| 50 | 35 | DZRA 50 / 35 | 1 | 16,0 | 9,8 | 8,0 | 90 |
| 70 | 16 | DZRA 70 / 16 | 1 | 18,5 | 11,2 | 5,6 | 110 |
| 70 | 25 | DZRA 70 / 25 | 1 | 18,5 | 11,2 | 6,8 | 110 |
| 70 | 35 | DZRA 70 / 35 | 1 | 18,5 | 11,2 | 8,0 | 110 |
| 70 | 50 | DZRA 70 / 50 | 1 | 18,5 | 11,2 | 9,8 | 110 |
| 95 | 25 | DZRA 95 / 25 | 1 | 22,0 | 13,2 | 6,8 | 110 |
| 95 | 35 | DZRA 95 / 35 | 1 | 22,0 | 13,2 | 8,0 | 110 |
| 95 | 50 | DZRA 95 / 50 | 1 | 22,0 | 13,2 | 9,8 | 110 |
| 95 | 70 | DZRA 95 / 70 | 1 | 22,0 | 13,2 | 11,2 | 110 |
| 120 | 25 | DZRA 120 / 25 | 1 | 23,0 | 14,7 | 6,8 | 110 |
| 120 | 35 | DZRA 120 / 35 | 1 | 23,0 | 14,7 | 8,0 | 110 |
| 120 | 50 | DZRA 120 / 50 | 1 | 23,0 | 14,7 | 9,8 | 110 |
| 120 | 70 | DZRA 120 / 70 | 1 | 23,0 | 14,7 | 11,2 | 110 |
| 120 | 95 | DZRA 120 / 95 | 1 | 23,0 | 14,7 | 13,2 | 110 |
| 150 | 35 | DZRA 150 / 35 | 1 | 25,0 | 16,3 | 8,0 | 130 |
| 150 | 50 | DZRA 150 / 50 | 1 | 25,0 | 16,3 | 9,8 | 130 |
| 150 | 70 | DZRA 150 / 70 | 1 | 25,0 | 16,3 | 11,2 | 130 |
| 150 | 95 | DZRA 150 / 95 | 1 | 25,0 | 16,3 | 13,2 | 130 |
| 150 | 120 | DZRA 150 / 120 | 1 | 25,0 | 16,3 | 14,7 | 130 |
| 185 | 35 | DZRA 185 / 35 | 1 | 28,5 | 18,3 | 8,0 | 130 |
| 185 | 50 | DZRA 185 / 50 | 1 | 28,5 | 18,3 | 9,8 | 130 |
| 185 | 70 | DZRA 185 / 70 | 1 | 28,5 | 18,3 | 11,2 | 130 |
| 185 | 95 | DZRA 185 / 95 | 1 | 28,5 | 18,3 | 13,2 | 130 |
| 185 | 120 | DZRA 185 / 120 | 1 | 28,0 | 18,3 | 14,7 | 130 |
| 185 | 150 | DZRA 185 / 150 | 1 | 28,0 | 18,3 | 16,3 | 130 |
| 240 | 35 | DZRA 240 / 35 | 1 | 32,0 | 21,0 | 8,0 | 150 |
| 240 | 50 | DZRA 240 / 50 | 1 | 32,0 | 21,0 | 9,8 | 150 |
| 240 | 70 | DZRA 240 / 70 | 1 | 32,0 | 21,0 | 11,2 | 150 |
| 240 | 95 | DZRA 240 / 95 | 1 | 32,0 | 21,0 | 13,2 | 150 |
| 240 | 120 | DZRA 240 / 120 | 1 | 32,0 | 21,0 | 14,7 | 150 |
| 240 | 150 | DZRA 240 / 150 | 1 | 32,0 | 21,0 | 16,3 | 150 |
| 240 | 185 | DZRA 240 / 185 | 1 | 32,0 | 21,0 | 18,3 | 150 |

DZRAp - Reducing ferrules with the leakproof partition acc. to DIN standard

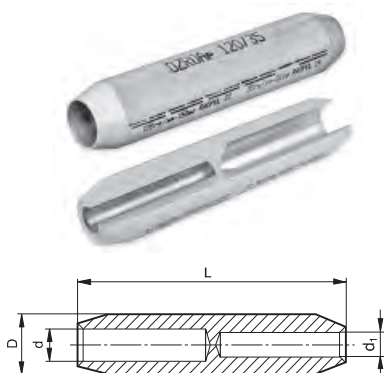
| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | |
|---------------------------------------|---------|---------------|---------------|-----------------|------|----------------|-----|
| input | initial | | | D | d | d ₁ | L |
| 16 | 10 | DZRAp 16 / 10 | 1 | 12,0 | 5,6 | 4,9 | 81 |
| 25 | 10 | DZRAp 25 / 10 | 1 | 12,0 | 6,8 | 4,9 | 81 |
| 25 | 16 | DZRAp 25 / 16 | 1 | 12,0 | 6,8 | 5,6 | 81 |
| 35 | 10 | DZRAp 35 / 10 | 1 | 14,0 | 8,0 | 4,9 | 97 |
| 35 | 16 | DZRAp 35 / 16 | 1 | 14,0 | 8,0 | 5,6 | 97 |
| 35 | 25 | DZRAp 35 / 25 | 1 | 14,0 | 8,0 | 6,8 | 97 |
| 50 | 16 | DZRAp 50 / 16 | 1 | 16,0 | 9,8 | 5,6 | 97 |
| 50 | 25 | DZRAp 50 / 25 | 1 | 16,0 | 9,8 | 6,8 | 97 |
| 50 | 35 | DZRAp 50 / 35 | 1 | 16,0 | 9,8 | 8,0 | 97 |
| 70 | 16 | DZRAp 70 / 16 | 1 | 18,5 | 11,2 | 5,6 | 117 |
| 70 | 25 | DZRAp 70 / 25 | 1 | 18,5 | 11,2 | 6,8 | 117 |
| 70 | 35 | DZRAp 70 / 35 | 1 | 18,5 | 11,2 | 8,0 | 117 |
| 70 | 50 | DZRAp 70 / 50 | 1 | 18,5 | 11,2 | 9,8 | 117 |
| 95 | 25 | DZRAp 95 / 25 | 1 | 22,0 | 13,2 | 6,8 | 118 |
| 95 | 35 | DZRAp 95 / 35 | 1 | 22,0 | 13,2 | 8,0 | 118 |
| 95 | 50 | DZRAp 95 / 50 | 1 | 22,0 | 13,2 | 9,8 | 118 |
| 95 | 70 | DZRAp 95 / 70 | 1 | 22,0 | 13,2 | 11,2 | 118 |



DZRAp - Reducing ferrules with the leakproof partition
acc. to DIN standard - next

| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | |
|---------------------------------------|---------|-----------------|---------------|-----------------|------|----------------|-----|
| input | initial | | | D | d | d ₁ | L |
| 120 | 25 | DZRAp 120 / 25 | 1 | 23,0 | 14,7 | 6,8 | 118 |
| 120 | 35 | DZRAp 120 / 35 | 1 | 23,0 | 14,7 | 8,0 | 118 |
| 120 | 50 | DZRAp 120 / 50 | 1 | 23,0 | 14,7 | 9,8 | 118 |
| 120 | 70 | DZRAp 120 / 70 | 1 | 23,0 | 14,7 | 11,2 | 118 |
| 120 | 95 | DZRAp 120 / 95 | 1 | 23,0 | 14,7 | 13,2 | 118 |
| 150 | 35 | DZRAp 150 / 35 | 1 | 25,0 | 16,3 | 8,0 | 140 |
| 150 | 50 | DZRAp 150 / 50 | 1 | 25,0 | 16,3 | 9,8 | 140 |
| 150 | 70 | DZRAp 150 / 70 | 1 | 25,0 | 16,3 | 11,2 | 140 |
| 150 | 95 | DZRAp 150 / 95 | 1 | 25,0 | 16,3 | 13,2 | 140 |
| 150 | 120 | DZRAp 150 / 120 | 1 | 25,0 | 16,3 | 14,7 | 140 |
| 185 | 35 | DZRAp 185 / 35 | 1 | 28,5 | 18,3 | 8,0 | 140 |
| 185 | 50 | DZRAp 185 / 50 | 1 | 28,5 | 18,3 | 9,8 | 140 |
| 185 | 70 | DZRAp 185 / 70 | 1 | 28,5 | 18,3 | 11,2 | 140 |
| 185 | 95 | DZRAp 185 / 95 | 1 | 28,5 | 18,3 | 13,2 | 140 |
| 185 | 120 | DZRAp 185 / 120 | 1 | 28,5 | 18,3 | 14,7 | 140 |
| 185 | 150 | DZRAp 185 / 150 | 1 | 28,5 | 18,3 | 16,3 | 140 |
| 240 | 35 | DZRAp 240 / 35 | 1 | 32,0 | 21,0 | 8,0 | 160 |
| 240 | 50 | DZRAp 240 / 50 | 1 | 32,0 | 21,0 | 9,8 | 160 |
| 240 | 70 | DZRAp 240 / 70 | 1 | 32,0 | 21,0 | 11,2 | 160 |
| 240 | 95 | DZRAp 240 / 95 | 1 | 32,0 | 21,0 | 13,2 | 160 |
| 240 | 120 | DZRAp 240 / 120 | 1 | 32,0 | 21,0 | 14,7 | 160 |
| 240 | 150 | DZRAp 240 / 150 | 1 | 32,0 | 21,0 | 16,3 | 160 |
| 240 | 185 | DZRAp 240 / 185 | 1 | 32,0 | 21,0 | 18,3 | 160 |

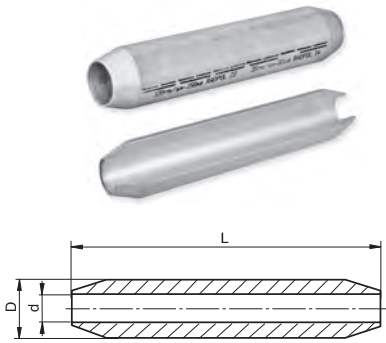
DZROAp - Reducing ferrules with the partition for MV cables
of 10 ÷ 30 kV acc. to DIN standard



| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | |
|---------------------------------------|---------|------------------|---------------|-----------------|------|----------------|-----|
| input | initial | | | D | d | d ₁ | L |
| 35 | 25 | DZROAp 35 / 25 | 1 | 14,0 | 8,0 | 6,8 | 95 |
| 50 | 25 | DZROAp 50 / 25 | 1 | 16,0 | 9,8 | 6,8 | 95 |
| 50 | 35 | DZROAp 50 / 35 | 1 | 16,0 | 9,8 | 8,0 | 95 |
| 70 | 25 | DZROAp 70 / 25 | 1 | 18,5 | 11,2 | 6,8 | 100 |
| 70 | 35 | DZROAp 70 / 35 | 1 | 18,5 | 11,2 | 8,0 | 100 |
| 70 | 50 | DZROAp 70 / 50 | 1 | 18,5 | 11,2 | 9,8 | 100 |
| 95 | 25 | DZROAp 95 / 25 | 1 | 22,0 | 13,2 | 6,8 | 105 |
| 95 | 35 | DZROAp 95 / 35 | 1 | 22,0 | 13,2 | 8,0 | 105 |
| 95 | 50 | DZROAp 95 / 50 | 1 | 22,0 | 13,2 | 9,8 | 105 |
| 95 | 70 | DZROAp 95 / 70 | 1 | 22,0 | 13,2 | 11,2 | 105 |
| 120 | 25 | DZROAp 120 / 25 | 1 | 23,0 | 14,7 | 6,8 | 110 |
| 120 | 35 | DZROAp 120 / 35 | 1 | 23,0 | 14,7 | 8,0 | 110 |
| 120 | 50 | DZROAp 120 / 50 | 1 | 23,0 | 14,7 | 9,8 | 110 |
| 120 | 70 | DZROAp 120 / 70 | 1 | 23,0 | 14,7 | 11,2 | 110 |
| 120 | 95 | DZROAp 120 / 95 | 1 | 23,0 | 14,7 | 13,2 | 110 |
| 150 | 25 | DZROAp 150 / 25 | 1 | 25,0 | 16,3 | 6,8 | 110 |
| 150 | 35 | DZROAp 150 / 35 | 1 | 25,0 | 16,3 | 8,0 | 110 |
| 150 | 50 | DZROAp 150 / 50 | 1 | 25,0 | 16,3 | 9,8 | 110 |
| 150 | 70 | DZROAp 150 / 70 | 1 | 25,0 | 16,3 | 11,2 | 110 |
| 150 | 95 | DZROAp 150 / 95 | 1 | 25,0 | 16,3 | 13,2 | 110 |
| 150 | 120 | DZROAp 150 / 120 | 1 | 25,0 | 16,3 | 14,7 | 110 |
| 185 | 25 | DZROAp 185 / 25 | 1 | 28,5 | 18,3 | 6,8 | 130 |
| 185 | 35 | DZROAp 185 / 35 | 1 | 28,5 | 18,3 | 8,0 | 130 |
| 185 | 50 | DZROAp 185 / 50 | 1 | 28,5 | 18,3 | 9,8 | 130 |
| 185 | 70 | DZROAp 185 / 70 | 1 | 28,5 | 18,3 | 11,2 | 130 |
| 185 | 95 | DZROAp 185 / 95 | 1 | 28,5 | 18,3 | 13,2 | 130 |
| 185 | 120 | DZROAp 185 / 120 | 1 | 28,5 | 18,3 | 14,7 | 130 |
| 185 | 150 | DZROAp 185 / 150 | 1 | 28,5 | 18,3 | 16,3 | 130 |
| 240 | 25 | DZROAp 240 / 25 | 1 | 32,0 | 21,0 | 6,8 | 130 |
| 240 | 35 | DZROAp 240 / 35 | 1 | 32,0 | 21,0 | 8,0 | 130 |
| 240 | 50 | DZROAp 240 / 50 | 1 | 32,0 | 21,0 | 9,8 | 130 |
| 240 | 70 | DZROAp 240 / 70 | 1 | 32,0 | 21,0 | 11,2 | 130 |
| 240 | 95 | DZROAp 240 / 95 | 1 | 32,0 | 21,0 | 13,2 | 130 |
| 240 | 120 | DZROAp 240 / 120 | 1 | 32,0 | 21,0 | 14,7 | 130 |
| 240 | 150 | DZROAp 240 / 150 | 1 | 32,0 | 21,0 | 16,3 | 130 |
| 240 | 185 | DZROAp 240 / 185 | 1 | 32,0 | 21,0 | 18,3 | 130 |



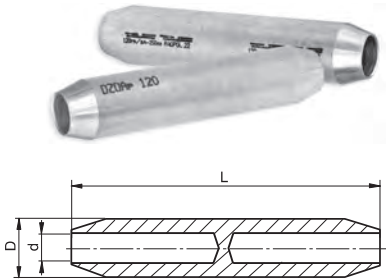
DZOA - Ferrules for MV cables of 10 ÷ 30kV acc. to DIN standard



| Core cross section [mm ²] rm, sm | Product name | Packing [pcs] | Dimensions [mm] | | |
|---|--------------|---------------|-----------------|------|-----|
| | | | D | d | L |
| 16 | DZOA 16 | 1 | 12,0 | 5,6 | 60 |
| 25 | DZOA 25 | 1 | 12,0 | 6,8 | 75 |
| 35 | DZOA 35 | 1 | 14,0 | 8,0 | 90 |
| 50 | DZOA 50 | 1 | 16,0 | 9,8 | 90 |
| 70 | DZOA 70 | 1 | 18,5 | 11,2 | 95 |
| 95 | DZOA 95 | 1 | 22,0 | 13,2 | 100 |
| 120 | DZOA 120 | 1 | 23,0 | 14,7 | 105 |
| 150 | DZOA 150 | 1 | 25,0 | 16,3 | 105 |
| 185 | DZOA 185 | 1 | 28,5 | 18,3 | 125 |
| 240 | DZOA 240 | 1 | 32,0 | 21,0 | 125 |

rm - round bunched core, sm - segmental bunched core.

DZOA_p - Ferrules with the partition for MV cables of 10 ÷ 30kV acc. to DIN standard



| Core cross section [mm ²] rm, sm | Product name | Packing [pcs] | Dimensions [mm] | | |
|---|-----------------------|---------------|-----------------|------|-----|
| | | | D | d | L |
| 35 | DZOA _p 35 | 1 | 14,0 | 8,0 | 95 |
| 50 | DZOA _p 50 | 1 | 16,0 | 9,8 | 95 |
| 70 | DZOA _p 70 | 1 | 18,5 | 11,2 | 100 |
| 95 | DZOA _p 95 | 1 | 22,0 | 13,2 | 105 |
| 120 | DZOA _p 120 | 1 | 23,0 | 14,7 | 110 |
| 150 | DZOA _p 150 | 1 | 25,0 | 16,3 | 110 |
| 185 | DZOA _p 185 | 1 | 28,5 | 18,3 | 130 |
| 240 | DZOA _p 240 | 1 | 32,0 | 21,0 | 130 |

rm - round bunched core, sm - segmental bunched core

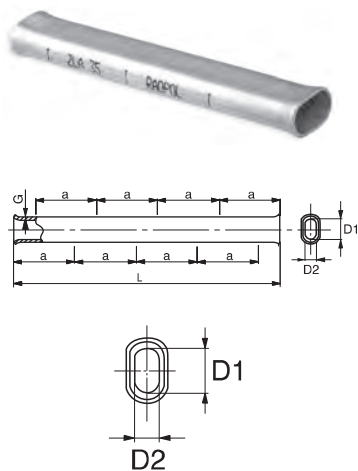
ZLA - Full-tension notch type midspan connectors

Application

For overhead power lines. Used for connection of two bare aluminum conductors of the same diameters and for closing the loop on standing insulators

Material

aluminum



| Product name | Dimensions [mm] | | | | | No. of crimps on one side |
|--------------|-----------------|------|-----|-----|----|---------------------------|
| | D1 | D2 | G | L | a | |
| ZLA 16 | 11 | 5,6 | 1 | 98 | 28 | 3 |
| ZLA 25 | 13,5 | 7 | 1,5 | 112 | 32 | 3 |
| ZLA 35 | 16 | 8 | 1,5 | 126 | 36 | 3 |
| ZLA 50 | 19,5 | 10 | 1,5 | 180 | 40 | 4 |
| ZLA 70 | 22,5 | 11,5 | 1,5 | 198 | 44 | 4 |



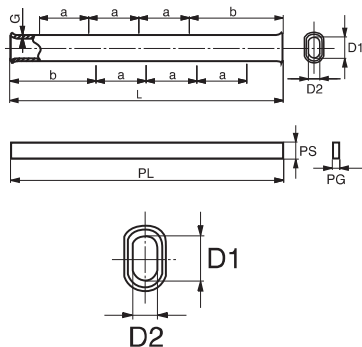
ZLF - Full-tension notch type midspan connectors with spacer

Application

For overhead power lines. Used for connection of two bare steel-aluminum conductors of the same diameters and for closing the loop on standing insulators.

Material

aluminum



| Product name | Dimensions [mm] | | | | | | | | | No. of crimps on one side |
|--------------|-----------------|------|-----|-----|----|-----|-----|------|-----|---------------------------|
| | D1 | D2 | G | L | a | b | PL | PS | PG | |
| ZLF 16 | 13,5 | 6 | 2 | 98 | 28 | 28 | 120 | 5,0 | 1,5 | 3 |
| ZLF 25 | 16,5 | 7,5 | 2 | 112 | 32 | 32 | 140 | 6,5 | 1,5 | 3 |
| ZLF 35 | 19 | 9 | 2 | 130 | 37 | 37 | 160 | 8,0 | 1,5 | 3 |
| ZLF 50 | 22 | 10,5 | 2 | 184 | 41 | 41 | 220 | 9,0 | 1,5 | 4 |
| ZLF 70 | 26 | 12,5 | 2,5 | 205 | 46 | 46 | 240 | 11,0 | 1,5 | 4 |
| ZLFD 16 | 13,5 | 6 | 2 | 208 | 32 | 32 | 240 | 5,0 | 1,5 | 6 |
| ZLFD 25 | 16,5 | 7,5 | 2 | 270 | 36 | 36 | 310 | 6,5 | 1,5 | 7 |
| ZLFD 35 | 19 | 9 | 2 | 306 | 36 | 72 | 350 | 8,0 | 1,5 | 7 |
| ZLFD 50 | 22 | 10,5 | 2 | 380 | 40 | 80 | 430 | 9,0 | 1,5 | 8 |
| ZLFD 70 | 26 | 12,5 | 2,5 | 462 | 44 | 132 | 520 | 11,0 | 1,5 | 8 |

■ ■ ■ ■ ■ ■ ■ ■ Bolts for the oil terminations

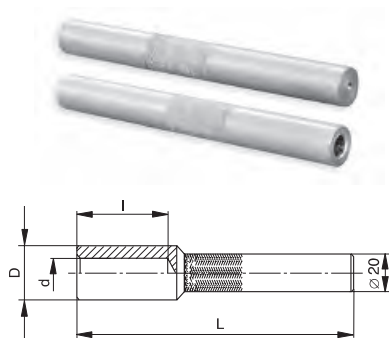
Application

Bolts for the oil terminations are used for execution of traditional ceramic cable terminations for paper insulated cables. They can be applied for indoor and outdoor oil terminations.

Technical data

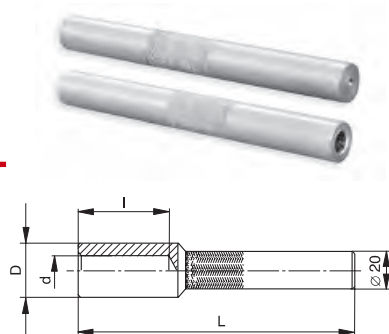
Accordance with DIN 46 329 standard concerns the tubular part.

Bolts are made of aluminum bars drawing in the recrystallizing condition of E-Al grade PN-EN 573-3.



SG - Bolts for the oil terminations

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | |
|---------------------------------------|--------------|---------------|-----------------|------|-----|----|
| | | | D | d | L | l |
| 16 | SG 16 | 1 | 12,6 | 5,6 | 161 | 33 |
| 25 | SG 25 | 1 | 13,8 | 6,6 | 165 | 37 |
| 35 | SG 35 | 1 | 16,2 | 7,6 | 170 | 43 |
| 50 | SG 50 | 1 | 18,2 | 9,2 | 176 | 49 |
| 70 | SG 70 | 1 | 20,2 | 10,6 | 181 | 53 |
| 95 | SG 95 | 1 | 22,6 | 12,8 | 185 | 57 |
| 120 | SG 120 | 1 | 25,8 | 14,3 | 190 | 61 |
| 150 | SG 150 | 1 | 28,0 | 16,2 | 193 | 63 |
| 185 | SG 185 | 1 | 30,0 | 17,8 | 201 | 67 |
| 240 | SG 240 | 1 | 34,0 | 20,2 | 206 | 71 |



DSG - Bolts for the oil terminat acc. to DIN standard

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | |
|---------------------------------------|--------------|---------------|-----------------|------|-----|----|
| | | | D | d | L | l |
| 16 | DSG 16 | 1 | 12,0 | 5,6 | 210 | 50 |
| 25 | DSG 25 | 1 | 12,0 | 6,8 | 210 | 50 |
| 35 | DSG 35 | 1 | 14,0 | 8,0 | 210 | 50 |
| 50 | DSG 50 | 1 | 16,0 | 9,8 | 210 | 50 |
| 70 | DSG 70 | 1 | 18,5 | 11,2 | 210 | 50 |
| 95 | DSG 95 | 1 | 22,0 | 13,2 | 210 | 50 |
| 120 | DSG 120 | 1 | 23,0 | 14,7 | 210 | 50 |
| 150 | DSG 150 | 1 | 25,0 | 16,3 | 220 | 56 |
| 185 | DSG 185 | 1 | 28,5 | 18,3 | 220 | 56 |
| 240 | DSG 240 | 1 | 32,0 | 21,0 | 220 | 56 |

Copper cable terminals



Non-standard terminals are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals
- page no. 33

Application

Copper cable terminals apply for termination of copper cores. They increase the safety and life of connection among others by the decreasing of the wires and insulation's conductor overheating process appears in case of terminals soldering.

Assembling

In order to make the durable assembling of terminal, it should be pressed by using the suitable press (in case of sector cores - the core should be first formed round).

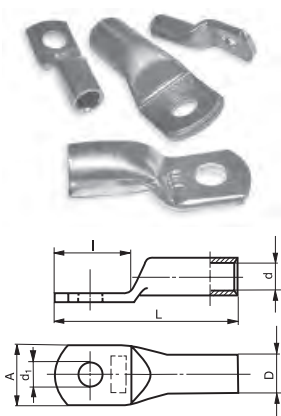
Technical data

Full accordance with DIN 46 235 standard of DK and DKS type terminals. In case of DKX, DKXS, DKU, DKUs, DKP, DKPs, terminals accordance with DIN standard concern only their tubular part.

Material: copper pipes and bars of grade Cu-ETP acc. with PN PN-EN 13600, PN-EN 13601, copper sheets acc. with PN-EN 1652. Insulation on sleeve's endings is made of 6.6 polyamide of working temperature from -40°C to +105°C.

K - Terminals without galvanic coating

KS - Tinned terminals



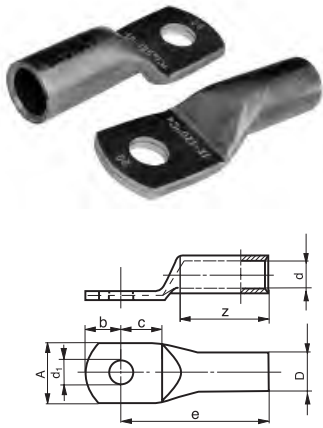
| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|--------------|-----------|---------------|-----------------|------|----------------|------|------|------|
| | | | | D | d | d ₁ | L | l | A |
| 2,5 | K 2,5/4 | KS 2,5/4 | 100 | 4 | 2,4 | 4,2 | 18 | 9 | 8 |
| 2,5 | K 2,5/5 | KS 2,5/5 | 100 | 4 | 2,4 | 5,2 | 20 | 11 | 10 |
| 2,5 | K 2,5/6 | KS 2,5/6 | 100 | 4 | 2,4 | 6,5 | 20 | 11 | 10 |
| 4 | K 4/5 | KS 4/5 | 100 | 4,5 | 2,9 | 5,2 | 20 | 11 | 10 |
| 4 | K 4/6 | KS 4/6 | 100 | 4,5 | 2,9 | 6,5 | 20 | 11 | 10 |
| 4 | K 4/8 | KS 4/8 | 100 | 4,5 | 2,9 | 8,5 | 23,5 | 14 | 12,5 |
| 6 | K 6/5 | KS 6/5 | 100 | 5,5 | 3,8 | 5,2 | 24 | 11 | 10 |
| 6 | K 6/6 | KS 6/6 | 100 | 5,5 | 3,8 | 6,5 | 24 | 12 | 12 |
| 6 | K 6/8 | KS 6/8 | 100 | 5,5 | 3,8 | 8,5 | 26,5 | 14 | 12,5 |
| 10 | K 10/5 | KS 10/5 | 100 | 6,2 | 4,5 | 5,2 | 27 | 14 | 12 |
| 10 | K 10/6 | KS 10/6 | 100 | 6,2 | 4,5 | 6,5 | 27 | 14 | 12 |
| 10 | K 10/8 | KS 10/8 | 100 | 6,2 | 4,5 | 8,5 | 27,5 | 14 | 12,5 |
| 10 | K 10/10 | KS 10/10 | 100 | 6,2 | 4,5 | 11 | 29 | 16,5 | 15 |
| 16 | K 16/5 | KS 16/5 | 50 | 8,5 | 5,5 | 5,2 | 36 | 15 | 13 |
| 16 | K 16/6 | KS 16/6 | 50 | 8,5 | 5,5 | 6,5 | 36 | 15 | 13 |
| 16 | K 16/8 | KS 16/8 | 50 | 8,5 | 5,5 | 8,5 | 36 | 15 | 13 |
| 16 | K 16/10 | KS 16/10 | 50 | 8,5 | 5,5 | 11 | 41,5 | 20 | 17 |
| 16 | K 16/12 | KS 16/12 | 50 | 8,5 | 5,5 | 13 | 47,5 | 26 | 18 |
| 25 | K 25/6 | KS 25/6 | 50 | 10 | 7 | 6,5 | 48 | 22 | 16 |
| 25 | K 25/8 | KS 25/8 | 50 | 10 | 7 | 8,5 | 48 | 22 | 16 |
| 25 | K 25/10 | KS 25/10 | 50 | 10 | 7 | 11 | 48 | 22 | 16 |
| 25 | K 25/12 | KS 25/12 | 50 | 10 | 7 | 13 | 52,5 | 26 | 18 |
| 35 | K 35/6 | KS 35/6 | 50 | 12 | 8,5 | 6,5 | 50 | 22 | 18 |
| 35 | K 35/8 | KS 35/8 | 50 | 12 | 8,5 | 8,5 | 50 | 22 | 18 |
| 35 | K 35/10 | KS 35/10 | 50 | 12 | 8,5 | 11 | 50 | 22 | 18 |
| 35 | K 35/12 | KS 35/12 | 50 | 12 | 8,5 | 13 | 54 | 26,5 | 21 |
| 50 | K 50/6 | KS 50/6 | 20 | 14 | 10 | 6,5 | 56 | 26 | 20 |
| 50 | K 50/8 | KS 50/8 | 20 | 14 | 10 | 8,5 | 56 | 26 | 20 |
| 50 | K 50/10 | KS 50/10 | 20 | 14 | 10 | 11 | 56 | 26 | 20 |
| 50 | K 50/12 | KS 50/12 | 20 | 14 | 10 | 13 | 58 | 28 | 21,5 |
| 50 | K 50/14 | KS 50/14 | 20 | 14 | 10 | 15 | 60 | 30 | 23 |
| 50 | K 50/16 | KS 50/16 | 20 | 14 | 10 | 17 | 65 | 34 | 24,5 |
| 70 | K 70/6 | KS 70/6 | 20 | 16,5 | 12,1 | 6,5 | 59 | 26 | 23 |
| 70 | K 70/8 | KS 70/8 | 20 | 16,5 | 12,1 | 8,5 | 59 | 26 | 23 |
| 70 | K 70/10 | KS 70/10 | 20 | 16,5 | 12,1 | 11 | 59 | 26 | 23 |
| 70 | K 70/12 | KS 70/12 | 20 | 16,5 | 12,1 | 13 | 59 | 26 | 23 |
| 70 | K 70/14 | KS 70/14 | 20 | 16,5 | 12,1 | 15 | 63 | 29 | 25 |
| 70 | K 70/16 | KS 70/16 | 20 | 16,5 | 12,1 | 17 | 68 | 34 | 26 |
| 95 | K 95/6 | KS 95/6 | 20 | 18 | 13,6 | 6,5 | 62 | 26 | 25 |
| 95 | K 95/8 | KS 95/8 | 20 | 18 | 13,6 | 8,5 | 62 | 26 | 25 |
| 95 | K 95/10 | KS 95/10 | 20 | 18 | 13,6 | 11 | 62 | 26 | 25 |
| 95 | K 95/12 | KS 95/12 | 20 | 18 | 13,6 | 13 | 62 | 26 | 26 |
| 95 | K 95/14 | KS 95/14 | 20 | 18 | 13,6 | 15 | 66 | 29 | 26 |
| 95 | K 95/16 | KS 95/16 | 20 | 18 | 13,6 | 17 | 71,5 | 34 | 29,5 |
| 120 | K 120/8 | KS 120/8 | 10 | 19,5 | 15,1 | 8,5 | 67 | 26 | 29 |
| 120 | K 120/10 | KS 120/10 | 10 | 19,5 | 15,1 | 11 | 67 | 26 | 29 |
| 120 | K 120/12 | KS 120/12 | 10 | 19,5 | 15,1 | 13 | 68 | 26 | 29 |
| 120 | K 120/14 | KS 120/14 | 10 | 19,5 | 15,1 | 15 | 67 | 26 | 29 |
| 120 | K 120/16 | KS 120/16 | 10 | 19,5 | 15,1 | 17 | 76,5 | 34 | 31 |
| 120 | K 120/20 | KS 120/20 | 10 | 19,5 | 15,1 | 21 | 82 | 40 | 31 |

K - Terminals without galvanic coating **KS - Tinned terminals - next**

| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|--------------|-----------|---------------|-----------------|------|----------------|-----|----|----|
| | | | | D | d | d ₁ | L | I | A |
| 150 | K 150/8 | KS 150/8 | 10 | 21 | 16,5 | 8,5 | 75 | 30 | 31 |
| 150 | K 150/10 | KS 150/10 | 10 | 21 | 16,5 | 11 | 75 | 30 | 31 |
| 150 | K 150/12 | KS 150/12 | 10 | 21 | 16,5 | 13 | 75 | 30 | 31 |
| 150 | K 150/14 | KS 150/14 | 10 | 21 | 16,5 | 15 | 75 | 30 | 31 |
| 150 | K 150/16 | KS 150/16 | 10 | 21 | 16,5 | 17 | 79 | 34 | 32 |
| 150 | K 150/20 | KS 150/20 | 10 | 21 | 16,5 | 21 | 85 | 40 | 32 |
| 185 | K 185/8 | KS 185/8 | 10 | 24 | 19 | 8,5 | 80 | 33 | 35 |
| 185 | K 185/10 | KS 185/10 | 10 | 24 | 19 | 11 | 80 | 33 | 35 |
| 185 | K 185/12 | KS 185/12 | 10 | 24 | 19 | 13 | 80 | 34 | 35 |
| 185 | K 185/14 | KS 185/14 | 10 | 24 | 19 | 15 | 80 | 34 | 35 |
| 185 | K 185/16 | KS 185/16 | 10 | 24 | 19 | 17 | 80 | 34 | 35 |
| 185 | K 185/20 | KS 185/20 | 10 | 24 | 19 | 21 | 82 | 34 | 35 |
| 240 | K 240/10 | KS 240/10 | 10 | 26 | 21 | 11 | 93 | 40 | 38 |
| 240 | K 240/12 | KS 240/12 | 10 | 26 | 21 | 13 | 93 | 40 | 38 |
| 240 | K 240/14 | KS 240/14 | 10 | 26 | 21 | 15 | 93 | 40 | 38 |
| 240 | K 240/16 | KS 240/16 | 10 | 26 | 21 | 17 | 93 | 40 | 38 |
| 240 | K 240/20 | KS 240/20 | 10 | 26 | 21 | 21 | 93 | 40 | 38 |
| 300 | K 300/10 | KS 300/10 | 10 | 30 | 24 | 11 | 109 | 40 | 43 |
| 300 | K 300/12 | KS 300/12 | 10 | 30 | 24 | 13 | 109 | 40 | 43 |
| 300 | K 300/14 | KS 300/14 | 10 | 30 | 24 | 15 | 109 | 40 | 43 |
| 300 | K 300/16 | KS 300/16 | 10 | 30 | 24 | 17 | 109 | 40 | 43 |
| 300 | K 300/20 | KS 300/20 | 10 | 30 | 24 | 21 | 109 | 40 | 43 |

DK - Terminals acc. to DIN standard without galvanic coating

DKs - Tinned terminals acc. to DIN standard

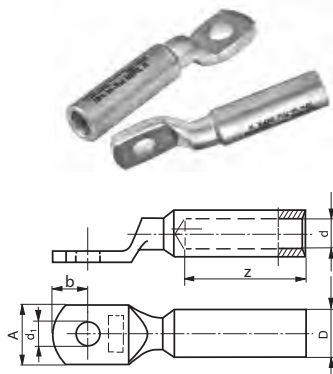


| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | | | |
|---------------------------------------|--------------|------------|---------------|-----------------|------|----------------|----|------|----|-----|----|
| | | | | D | d | d ₁ | A | b | c | e | z |
| 16 | DK 16/6 | DKs 16/6 | 50 | 8,5 | 5,5 | 6,4 | 13 | 10,5 | 8 | 36 | 20 |
| 25 | DK 25/8 | DKs 25/8 | 50 | 10,0 | 7,0 | 8,4 | 16 | 13 | 10 | 38 | 20 |
| 35 | DK 35/8 | DKs 35/8 | 50 | 12,5 | 8,2 | 8,4 | 17 | 13 | 10 | 42 | 20 |
| 50 | DK 50/10 | DKs 50/10 | 20 | 14,5 | 10,0 | 10,5 | 22 | 15 | 12 | 52 | 28 |
| 70 | DK 70/10 | DKs 70/10 | 20 | 16,5 | 11,5 | 10,5 | 24 | 15 | 12 | 55 | 28 |
| 95 | DK 95/10 | DKs 95/10 | 20 | 19,0 | 13,5 | 10,5 | 28 | 15 | 12 | 65 | 35 |
| 120 | DK 120/12 | DKs 120/12 | 10 | 21,0 | 15,5 | 13 | 32 | 16 | 13 | 70 | 35 |
| 150 | DK 150/12 | DKs 150/12 | 10 | 23,5 | 17,0 | 13 | 34 | 16 | 13 | 78 | 35 |
| 185 | DK 185/16 | DKs 185/16 | 10 | 25,5 | 19,0 | 17 | 37 | 19 | 16 | 82 | 40 |
| 240 | DK 240/16 | DKs 240/16 | 10 | 29,0 | 21,5 | 17 | 42 | 19 | 16 | 92 | 40 |
| 300 | DK 300/16 | DKs 300/16 | 1 | 32,0 | 24,5 | 17 | 48 | 19 | 16 | 100 | 50 |
| 400 | DK 400/16 | DKs 400/16 | 1 | 38,5 | 27,5 | 17 | 55 | 25 | 16 | 115 | 70 |
| 500 | DK 500/20 | DKs 500/20 | 1 | 42,0 | 31,0 | 21 | 60 | 25 | 20 | 125 | 70 |
| 625 | DK 625/20 | DKs 625/20 | 1 | 44,0 | 34,5 | 21 | 60 | 25 | 20 | 135 | 80 |

Remaining dimensions of rings are the same as in case of K and KS terminals.

DKX - Leakproof terminals acc. to DIN standard without galvanic coating

DKXS - Tinned leakproof terminals acc. to DIN standard

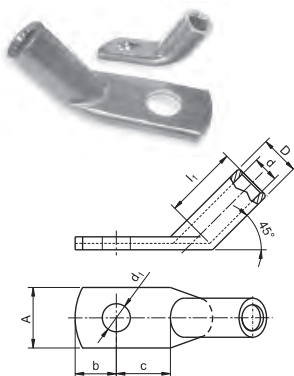


| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|--------------|-------------|---------------|-----------------|------|----------------|----|------|----|
| | | | | D | d | d ₁ | A | b | z |
| 16 | DKX 16/6 | DKXS 16/6 | 1 | 8,5 | 5,5 | 6,5 | 13 | 10,5 | 20 |
| 25 | DKX 25/8 | DKXS 25/8 | 1 | 10 | 7 | 8,5 | 16 | 13 | 20 |
| 35 | DKX 35/10 | DKXS 35/10 | 1 | 12,5 | 8,2 | 11 | 17 | 13 | 20 |
| 50 | DKX 50/10 | DKXS 50/10 | 1 | 14,5 | 10 | 11 | 22 | 15 | 28 |
| 70 | DKX 70/12 | DKXS 70/12 | 1 | 16,5 | 11,5 | 13 | 24 | 15 | 28 |
| 95 | DKX 95/12 | DKXS 95/12 | 1 | 19 | 13,5 | 13 | 28 | 15 | 35 |
| 120 | DKX 120/12 | DKXS 120/12 | 1 | 21 | 15,5 | 13 | 32 | 16 | 35 |
| 150 | DKX 150/16 | DKXS 150/16 | 1 | 23,5 | 17 | 17 | 34 | 16 | 35 |
| 185 | DKX 185/16 | DKXS 185/16 | 1 | 25,5 | 19 | 17 | 37 | 19 | 40 |
| 240 | DKX 240/16 | DKXS 240/16 | 1 | 29 | 21,5 | 17 | 42 | 19 | 40 |
| 300 | DKX 300/16 | DKXS 300/16 | 1 | 32 | 24,5 | 17 | 48 | 19 | 50 |

Remaining dimensions of rings are the same as in case of K and KS terminals.

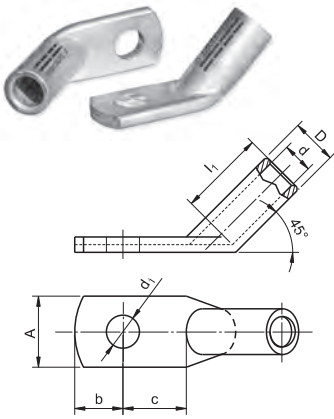
KU - Angular cable terminals 45°, without galvanic coating

KUs - Tinned angular cable terminals 45°



| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | | |
|---------------------------------------|--------------|------------|---------------|-----------------|------|----------------|------|------|----------------|----|
| | | | | D | d | d ₁ | b | c | l ₁ | A |
| 16 | KU 16/6 | KUs 16/6 | 50 | 8,5 | 5,5 | 6,5 | 9,5 | 12,5 | 17 | 13 |
| 25 | KU 25/8 | KUs 25/8 | 50 | 10,0 | 7,0 | 8,5 | 11,0 | 13,0 | 20 | 16 |
| 35 | KU 35/8 | KUs 35/8 | 50 | 12,0 | 8,5 | 8,5 | 11,0 | 13,0 | 20 | 18 |
| 50 | KU 50/10 | KUs 50/10 | 20 | 14,0 | 10,0 | 11,0 | 13,0 | 16,0 | 24 | 20 |
| 70 | KU 70/10 | KUs 70/10 | 20 | 16,5 | 12,1 | 11,0 | 13,0 | 17,0 | 28 | 23 |
| 95 | KU 95/10 | KUs 95/10 | 20 | 18,0 | 13,6 | 11,0 | 13,0 | 17,0 | 28 | 25 |
| 120 | KU 120/12 | KUs 120/12 | 10 | 19,5 | 15,1 | 13,0 | 15,0 | 18,0 | 31 | 29 |
| 150 | KU 150/12 | KUs 150/12 | 10 | 21,0 | 16,5 | 13,0 | 16,0 | 18,0 | 35 | 31 |
| 185 | KU 185/16 | KUs 185/16 | 10 | 24,0 | 19,0 | 17,0 | 18,0 | 23,0 | 35 | 35 |
| 240 | KU 240/16 | KUs 240/16 | 10 | 26,0 | 21,0 | 17,0 | 20,0 | 22,0 | 40 | 38 |

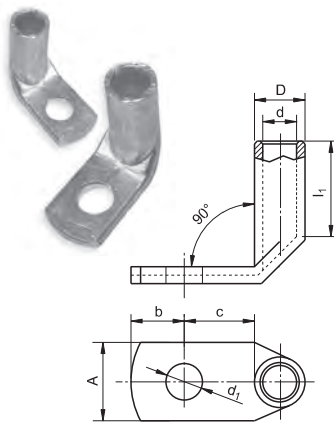
Remaining dimensions of rings are the same as in case of K and KS terminals.



DKU - Angular cable terminals 45°, acc. to DIN standard without galvanic coating
DKUs - Tinned angular cable terminals 45°, acc. to DIN standard

| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | | |
|---------------------------------------|--------------|-------------|---------------|-----------------|------|----------------|------|------|----------------|----|
| | | | | D | d | d ₁ | b | c | l ₁ | A |
| 16 | DKU 16/6 | DKUs 16/6 | 50 | 8,5 | 5,5 | 6,5 | 9,5 | 12,5 | 17 | 14 |
| 25 | DKU 25/8 | DKUs 25/8 | 50 | 10,0 | 7,0 | 8,5 | 11,0 | 13,0 | 20 | 16 |
| 35 | DKU 35/8 | DKUs 35/8 | 50 | 12,5 | 8,2 | 8,5 | 11,0 | 13,0 | 20 | 19 |
| 50 | DKU 50/10 | DKUs 50/10 | 20 | 14,5 | 10,0 | 11,0 | 13,0 | 16,0 | 24 | 22 |
| 70 | DKU 70/10 | DKUs 70/10 | 20 | 16,5 | 11,5 | 11,0 | 13,0 | 17,0 | 28 | 24 |
| 95 | DKU 95/10 | DKUs 95/10 | 20 | 19,0 | 13,5 | 11,0 | 13,0 | 17,0 | 28 | 26 |
| 120 | DKU 120/12 | DKUs 120/12 | 10 | 21,0 | 15,5 | 13,0 | 15,0 | 18,0 | 31 | 28 |
| 150 | DKU 150/12 | DKUs 150/12 | 10 | 23,5 | 17,0 | 13,0 | 16,0 | 18,0 | 35 | 32 |
| 185 | DKU 185/16 | DKUs 185/16 | 10 | 25,5 | 19,0 | 17,0 | 18,0 | 23,0 | 35 | 35 |
| 240 | DKU 240/16 | DKUs 240/16 | 10 | 29,0 | 21,5 | 17,0 | 20,0 | 22,0 | 40 | 40 |

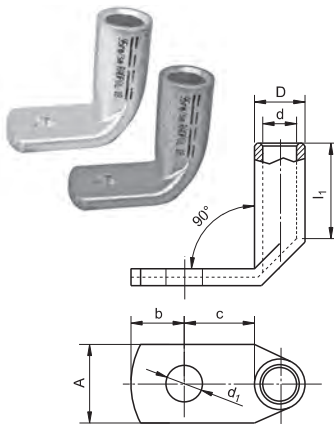
Remaining dimensions of rings are the same as in case of K and KS terminals.



KP - Angular cable terminals 90°, without galvanic coating
KPs - Tinned angular cable terminals 90°

| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | | |
|---------------------------------------|--------------|------------|---------------|-----------------|------|----------------|------|------|----------------|----|
| | | | | D | d | d ₁ | b | c | l ₁ | A |
| 16 | KP 16/6 | KPs 16/6 | 50 | 8,5 | 5,5 | 6,5 | 9,5 | 12,5 | 17 | 13 |
| 25 | KP 25/8 | KPs 25/8 | 50 | 10,0 | 7,0 | 8,5 | 11,0 | 13,0 | 20 | 16 |
| 35 | KP 35/8 | KPs 35/8 | 50 | 12,0 | 8,5 | 8,5 | 11,0 | 13,0 | 20 | 18 |
| 50 | KP 50/10 | KPs 50/10 | 20 | 14,0 | 10,0 | 11,0 | 13,0 | 16,0 | 24 | 20 |
| 70 | KP 70/10 | KPs 70/10 | 20 | 16,5 | 12,1 | 11,0 | 13,0 | 17,0 | 28 | 23 |
| 95 | KP 95/10 | KPs 95/10 | 20 | 18,0 | 13,6 | 11,0 | 13,0 | 17,0 | 28 | 25 |
| 120 | KP 120/12 | KPs 120/12 | 10 | 19,5 | 15,1 | 13,0 | 15,0 | 18,0 | 31 | 29 |
| 150 | KP 150/12 | KPs 150/12 | 10 | 21,0 | 16,5 | 13,0 | 16,0 | 18,0 | 35 | 31 |
| 185 | KP 185/16 | KPs 185/16 | 10 | 24,0 | 19,0 | 17,0 | 18,0 | 23,0 | 35 | 35 |
| 240 | KP 240/16 | KPs 240/16 | 10 | 26,0 | 21,0 | 17,0 | 22,0 | 22,0 | 40 | 38 |

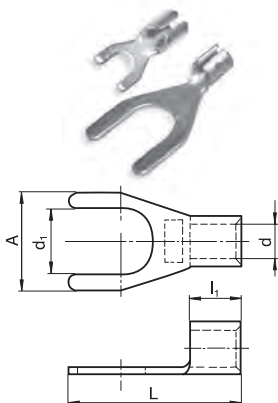
Remaining dimensions of rings are the same as in case of K and KS terminals.



DKP - Angular cable terminals 90°, acc. to DIN standard without galvanic coating
DKPs - Tinned angular cable terminals 90°, acc. to DIN standard

| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | | | |
|---------------------------------------|--------------|-------------|---------------|-----------------|------|----------------|------|------|----------------|----|
| | | | | D | d | d ₁ | b | c | l ₁ | A |
| 16 | DKP 16/6 | DKPs 16/6 | 50 | 8,5 | 5,5 | 6,5 | 9,5 | 12,5 | 17 | 14 |
| 25 | DKP 25/8 | DKPs 25/8 | 50 | 10,0 | 7,0 | 8,5 | 11,0 | 13,0 | 20 | 16 |
| 35 | DKP 35/8 | DKPs 35/8 | 50 | 12,5 | 8,2 | 8,5 | 11,0 | 13,0 | 20 | 19 |
| 50 | DKP 50/10 | DKPs 50/10 | 20 | 14,5 | 10,0 | 11,0 | 13,0 | 16,0 | 24 | 22 |
| 70 | DKP 70/10 | DKPs 70/10 | 20 | 16,5 | 11,5 | 11,0 | 13,0 | 17,0 | 28 | 24 |
| 95 | DKP 95/10 | DKPs 95/10 | 20 | 19,0 | 13,5 | 11,0 | 13,0 | 17,0 | 28 | 26 |
| 120 | DKP 120/12 | DKPs 120/12 | 10 | 21,0 | 15,5 | 13,0 | 15,0 | 18,0 | 31 | 28 |
| 150 | DKP 150/12 | DKPs 150/12 | 10 | 23,5 | 17,0 | 13,0 | 16,0 | 18,0 | 35 | 32 |
| 185 | DKP 185/16 | DKPs 185/16 | 10 | 25,5 | 19,0 | 17,0 | 18,0 | 23,0 | 35 | 35 |
| 240 | DKP 240/16 | DKPs 240/16 | 10 | 29,0 | 21,5 | 17,0 | 22,0 | 22,0 | 40 | 40 |

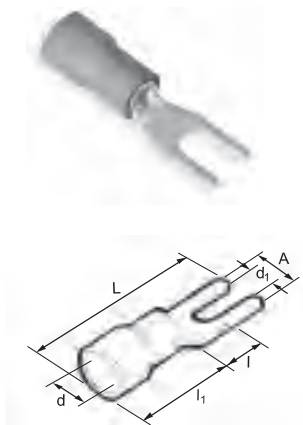
Remaining dimensions of rings are the same as in case of K and KS terminals.



KW - Spade terminals without galvanic coating
KWs - Tinned spade terminals

| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|--------------|------------|---------------|-----------------|-----|----------------|----|----|
| | | | | d ₁ | d | l ₁ | L | A |
| 4 ÷ 6 | KW 6 / 4 | KWs 6 / 4 | 100 | 4,3 | 3,6 | 6 | 18 | 8 |
| 4 ÷ 6 | KW 6 / 5 | KWs 6 / 5 | 100 | 5,3 | 3,6 | 6 | 20 | 10 |
| 4 ÷ 6 | KW 6 / 6 | KWs 6 / 6 | 100 | 6,4 | 3,6 | 6 | 21 | 11 |
| 4 ÷ 6 | KW 6 / 8 | KWs 6 / 8 | 100 | 8,4 | 3,6 | 6 | 26 | 14 |
| 4 ÷ 6 | KW 6 / 10 | KWs 6 / 10 | 100 | 10,5 | 3,6 | 6 | 30 | 18 |
| 10 | KW 10 / 5 | KWs 10 / 5 | 100 | 5,3 | 4,3 | 8 | 24 | 10 |
| 10 | KW 10 / 6 | KWs 10 / 6 | 100 | 6,4 | 4,3 | 8 | 27 | 11 |
| 16 | KW 16 / 6 | KWs 16 / 6 | 100 | 6,4 | 5,8 | 10 | 30 | 11 |
| 16 | KW 16 / 8 | KWs 16 / 8 | 100 | 8,5 | 5,8 | 10 | 35 | 15 |

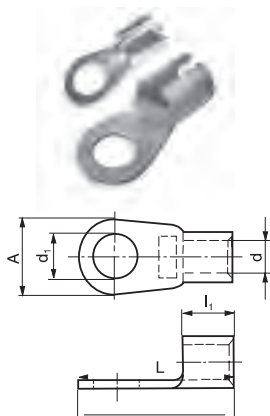
KWI - Insulated tinned spade terminals, acc. to DIN standard



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | Insulation colour | |
|---------------------------------------|--------------|---------------|-----------------|-----|------|----------------|------|-------------------|--------|
| | | | d ₁ | d | l | l ₁ | L | | A |
| 0,5 ÷ 1,5 | KWI 1 / 3 | 100 | 3,2 | 4,0 | 6,5 | 11,0 | 22,5 | 5,7 | red |
| 0,5 ÷ 1,5 | KWI 1 / 4 | 100 | 4,3 | 4,0 | 6,5 | 11,0 | 22,5 | 6,4 | red |
| 0,5 ÷ 1,5 | KWI 1 / 5 | 100 | 5,3 | 4,0 | 6,5 | 11,0 | 22,5 | 8,0 | red |
| 1,5 ÷ 2,5 | KWI 2,5 / 3 | 100 | 3,2 | 4,5 | 6,5 | 11,0 | 22,5 | 5,7 | blue |
| 1,5 ÷ 2,5 | KWI 2,5 / 4 | 100 | 4,3 | 4,5 | 6,5 | 11,0 | 22,5 | 6,4 | blue |
| 1,5 ÷ 2,5 | KWI 2,6 / 5 | 100 | 5,3 | 4,5 | 6,5 | 11,0 | 22,5 | 8,0 | blue |
| 1,5 ÷ 2,5 | KWI 2,5 / 6 | 100 | 6,4 | 4,5 | 9,0 | 11,0 | 22,5 | 10,7 | blue |
| 2,5 ÷ 4 | KWI 4 / 4 | 100 | 4,3 | 6,3 | 6,9 | 13,7 | 22,4 | 8,0 | yellow |
| 2,5 ÷ 4 | KWI 4 / 5 | 100 | 5,3 | 6,3 | 8,0 | 13,7 | 22,4 | 8,0 | yellow |
| 4 ÷ 6 | KWI 6 / 3 | 100 | 3,2 | 6,3 | 7,1 | 13,7 | 26,7 | 7,3 | yellow |
| 4 ÷ 6 | KWI 6 / 4 | 100 | 4,3 | 6,3 | 7,5 | 13,7 | 26,7 | 8,2 | yellow |
| 4 ÷ 6 | KWI 6 / 5 | 100 | 5,3 | 6,3 | 8,0 | 13,7 | 26,7 | 9,0 | yellow |
| 4 ÷ 6 | KWI 6 / 6 | 100 | 6,4 | 6,3 | 12,0 | 13,7 | 26,7 | 12,0 | yellow |

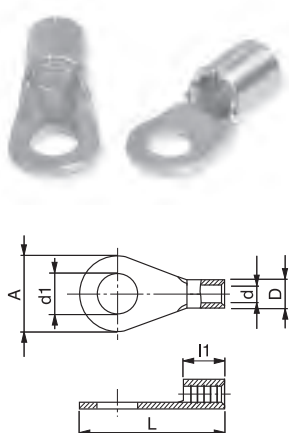
KO - Ring terminals without galvanic coating

KOs - Tinned ring terminals



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|--------------|---------------|-----------------|------|----------------|----|------|----|
| | | | d ₁ | d | l ₁ | L | A | |
| 4 ÷ 6 | KO 6 / 5 | KOs 6 / 5 | 100 | 5,5 | 3,6 | 6 | 20,0 | 10 |
| 10 | KO 10 / 6 | KOs 10 / 6 | 100 | 6,5 | 4,3 | 8 | 22,5 | 11 |
| 16 | KO 16 / 8 | KOs 16 / 8 | 50 | 8,5 | 5,8 | 10 | 29,0 | 14 |
| 25 | KO 25 / 10 | KOs 25 / 10 | 50 | 11,0 | 7,5 | 11 | 35,0 | 18 |
| 35 | KO 35 / 10 | KOs 35 / 10 | 50 | 11,0 | 9,2 | 12 | 36,0 | 18 |
| 50 | KO 50 / 12 | KOs 50 / 12 | 20 | 13,0 | 11,0 | 16 | 47,0 | 22 |
| 70 | KO 70 / 12 | KOs 70 / 12 | 20 | 13,0 | 13,0 | 18 | 49,0 | 22 |
| 95 | KO 95 / 12 | KOs 95 / 12 | 20 | 13,0 | 14,6 | 20 | 54,5 | 27 |
| 120 | KO 120 / 16 | KOs 120 / 16 | 10 | 17,0 | 16,2 | 22 | 58,5 | 29 |
| 150 | KO 150 / 16 | KOs 150 / 16 | 10 | 17,0 | 19,0 | 24 | 65,0 | 30 |

KOZs - Tinned and soldered ring terminals

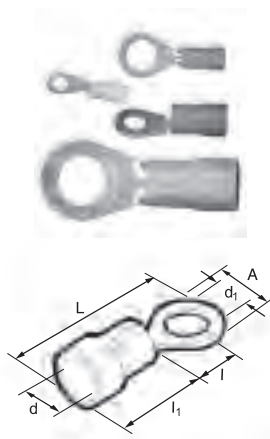


| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|----------------|---------------|-----------------|-----|----------------|----------------|------|------|
| | | | D | d | d ₁ | l ₁ | L | A |
| 0,1 ÷ 0,5 | KOZs 0,5 / 2 | 100 | 2 | 1 | 2,1 | 4 | 12,5 | 5 |
| 0,1 ÷ 0,5 | KOZs 0,5 / 2,5 | 100 | 2 | 1 | 2,6 | 4 | 12,5 | 5 |
| 0,1 ÷ 0,5 | KOZs 0,5 / 3 | 100 | 2 | 1 | 3,2 | 4 | 12,5 | 5 |
| 0,1 ÷ 0,5 | KOZs 0,5 / 4 | 100 | 2 | 1 | 4,3 | 4 | 12,5 | 6,5 |
| 0,1 ÷ 0,5 | KOZs 0,5 / 5 | 100 | 2 | 1 | 5,3 | 4 | 16 | 8 |
| 0,5 ÷ 1,5 | KOZs 1 / 3 | 100 | 3,4 | 1,7 | 3,2 | 4,5 | 11,5 | 5,5 |
| 0,5 ÷ 1,5 | KOZs 1 / 4 | 100 | 3,4 | 1,7 | 4,3 | 4,5 | 14,4 | 6,5 |
| 0,5 ÷ 1,5 | KOZs 1 / 5 | 100 | 3,4 | 1,7 | 5,3 | 4,5 | 15,8 | 8 |
| 0,5 ÷ 1,5 | KOZs 1 / 6 | 100 | 3,4 | 1,7 | 6,4 | 4,5 | 21,7 | 11,6 |
| 0,5 ÷ 1,5 | KOZs 1 / 8 | 100 | 3,4 | 1,7 | 8,4 | 4,5 | 21,7 | 11,6 |
| 1,5 ÷ 2,5 | KOZs 2,5 / 3 | 100 | 4 | 2,3 | 3,2 | 4,8 | 16,8 | 8,5 |
| 1,5 ÷ 2,5 | KOZs 2,5 / 4 | 100 | 4 | 2,3 | 4,3 | 4,8 | 16,8 | 8,5 |
| 1,5 ÷ 2,5 | KOZs 2,5 / 5 | 100 | 4 | 2,3 | 5,3 | 4,8 | 16,8 | 9,5 |
| 1,5 ÷ 2,5 | KOZs 2,5 / 6 | 100 | 4 | 2,3 | 6,4 | 4,8 | 21,8 | 12 |
| 1,5 ÷ 2,5 | KOZs 2,5 / 8 | 100 | 4 | 2,3 | 8,4 | 4,8 | 21,8 | 12 |
| 4 ÷ 6 | KOZs 6 / 4 | 100 | 5,6 | 3,5 | 4,3 | 6,8 | 19,8 | 9,5 |
| 4 ÷ 6 | KOZs 6 / 5 | 100 | 5,6 | 3,5 | 5,3 | 6,8 | 19,8 | 9,5 |
| 4 ÷ 6 | KOZs 6 / 6 | 100 | 5,6 | 3,5 | 6,4 | 6,8 | 25,8 | 12 |
| 4 ÷ 6 | KOZs 6 / 8 | 100 | 5,6 | 3,5 | 8,4 | 6,8 | 28 | 15 |
| 4 ÷ 6 | KOZs 6 / 10 | 100 | 5,6 | 3,5 | 10,5 | 6,8 | 28 | 15 |
| 4 ÷ 6 | KOZs 6 / 12 | 100 | 5,6 | 3,5 | 12,5 | 6,8 | 30 | 18 |

KOZs - Tinned and soldered ring terminals - next

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|---------------|---------------|-----------------|------|----------------|----------------|------|------|
| | | | D | d | d ₁ | l ₁ | L | A |
| 10 | KOZs 10 / 5 | 100 | 7 | 4,5 | 5,3 | 8 | 21 | 10 |
| 10 | KOZs 10 / 6 | 100 | 7 | 4,5 | 6,4 | 8 | 22,5 | 10,8 |
| 10 | KOZs 10 / 8 | 100 | 7 | 4,5 | 8,4 | 8 | 27 | 14 |
| 10 | KOZs 10 / 10 | 100 | 7 | 4,5 | 10,5 | 8 | 30 | 18 |
| 10 | KOZs 10 / 12 | 100 | 7 | 4,5 | 12,5 | 8 | 34 | 22 |
| 16 | KOZs 16 / 6 | 100 | 8,5 | 5,8 | 6,4 | 11 | 25,5 | 11 |
| 16 | KOZs 16 / 8 | 100 | 8,5 | 5,8 | 8,4 | 11 | 31 | 14 |
| 16 | KOZs 16 / 10 | 100 | 8,5 | 5,8 | 10,5 | 11 | 33 | 18 |
| 16 | KOZs 16 / 12 | 100 | 8,5 | 5,8 | 12,5 | 11 | 37 | 22 |
| 25 | KOZs 25 / 6 | 100 | 11 | 7,5 | 6,4 | 11 | 31 | 12 |
| 25 | KOZs 25 / 8 | 100 | 11 | 7,5 | 8,4 | 11 | 34 | 16 |
| 25 | KOZs 25 / 10 | 100 | 11 | 7,5 | 10,5 | 11 | 35 | 18 |
| 25 | KOZs 25 / 12 | 100 | 11 | 7,5 | 12,5 | 11 | 42 | 22 |
| 35 | KOZs 35 / 6 | 100 | 12,2 | 9 | 6,4 | 12 | 33,5 | 15 |
| 35 | KOZs 35 / 8 | 100 | 12,2 | 9 | 8,4 | 12 | 34 | 16 |
| 35 | KOZs 35 / 10 | 100 | 12,2 | 9 | 10,5 | 12 | 36 | 15,5 |
| 35 | KOZs 35 / 12 | 100 | 12,2 | 9 | 12,5 | 12 | 42 | 22 |
| 35 | KOZs 35 / 16 | 100 | 12,2 | 9 | 17 | 12 | 50 | 28 |
| 50 | KOZs 50 / 6 | 100 | 14,6 | 11 | 6,4 | 16 | 43 | 18 |
| 50 | KOZs 50 / 8 | 100 | 14,6 | 11 | 8,4 | 16 | 43 | 18 |
| 50 | KOZs 50 / 10 | 100 | 14,6 | 11 | 10,5 | 16 | 43 | 18 |
| 50 | KOZs 50 / 12 | 100 | 14,6 | 11 | 12,5 | 16 | 47 | 22 |
| 50 | KOZs 50 / 16 | 100 | 14,6 | 11 | 17 | 16 | 54 | 28 |
| 70 | KOZs 70 / 6 | 100 | 17 | 13 | 6,4 | 18 | 47 | 22 |
| 70 | KOZs 70 / 8 | 100 | 17 | 13 | 8,4 | 18 | 49 | 22 |
| 70 | KOZs 70 / 10 | 100 | 17 | 13 | 10,5 | 18 | 49 | 22 |
| 70 | KOZs 70 / 12 | 100 | 17 | 13 | 12,5 | 18 | 49 | 22 |
| 70 | KOZs 70 / 16 | 100 | 17 | 13 | 17 | 18 | 56 | 28 |
| 95 | KOZs 95 / 8 | 100 | 20 | 15 | 8,4 | 20 | 54 | 24 |
| 95 | KOZs 95 / 10 | 100 | 20 | 15 | 10,5 | 20 | 54 | 24 |
| 95 | KOZs 95 / 12 | 100 | 20 | 15 | 12,5 | 20 | 54 | 24 |
| 95 | KOZs 95 / 16 | 100 | 20 | 15 | 17 | 20 | 58 | 28 |
| 120 | KOZs 120 / 8 | 50 | 22,5 | 16,5 | 8,4 | 22 | 56 | 24 |
| 120 | KOZs 120 / 10 | 50 | 22,5 | 16,5 | 10,5 | 22 | 56 | 24 |
| 120 | KOZs 120 / 12 | 50 | 22,5 | 16,5 | 12,5 | 22 | 56 | 24 |
| 120 | KOZs 120 / 16 | 50 | 22,5 | 16,5 | 17 | 22 | 62 | 28 |
| 150 | KOZs 150 / 10 | 50 | 25,4 | 19 | 10,5 | 24 | 65 | 30 |
| 150 | KOZs 150 / 12 | 50 | 25,4 | 19 | 12,5 | 24 | 65 | 30 |
| 150 | KOZs 150 / 16 | 50 | 25,4 | 19 | 17 | 24 | 65 | 30 |
| 185 | KOZs 185 / 10 | 25 | 28 | 21 | 10,5 | 28 | 68 | 36 |
| 185 | KOZs 185 / 12 | 25 | 28 | 21 | 12,5 | 28 | 68 | 36 |
| 185 | KOZs 185 / 16 | 25 | 28 | 21 | 17 | 28 | 68 | 36 |

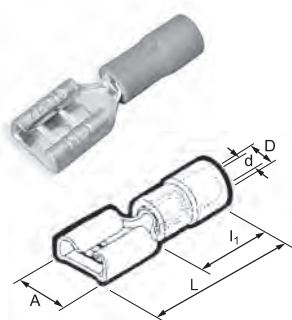
KOI - Insulated tinned ring terminals, acc. to DIN standard



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | | Insulation colour |
|---------------------------------------|--------------|---------------|-----------------|-----|-------|----------------|------|------|-------------------|
| | | | d ₁ | d | l | l ₁ | L | A | |
| 0,5 ÷ 1,5 | KOI 1 / 4 | 100 | 4,3 | 1,6 | 7,30 | 11,0 | 22,3 | 8,0 | red |
| 0,5 ÷ 1,5 | KOI 1 / 5 | 100 | 5,3 | 1,6 | 7,30 | 11,0 | 22,3 | 8,0 | red |
| 0,5 ÷ 1,5 | KOI 1 / 6 | 100 | 6,4 | 1,6 | 11,40 | 11,0 | 28,2 | 11,6 | red |
| 0,5 ÷ 1,5 | KOI 1 / 8 | 100 | 8,4 | 1,6 | 11,40 | 11,0 | 28,2 | 11,6 | red |
| 1,5 ÷ 2,5 | KOI 2,5 / 3 | 100 | 3,2 | 2,3 | 7,75 | 11,0 | 23,0 | 8,5 | blue |
| 1,5 ÷ 2,5 | KOI 2,5 / 4 | 100 | 4,3 | 2,3 | 7,75 | 11,0 | 23,0 | 8,5 | blue |
| 1,5 ÷ 2,5 | KOI 2,5 / 5 | 100 | 5,3 | 2,3 | 7,25 | 11,0 | 23,0 | 9,5 | blue |
| 1,5 ÷ 2,5 | KOI 2,5 / 6 | 100 | 6,4 | 2,3 | 11,00 | 11,0 | 28,0 | 12,0 | blue |
| 1,5 ÷ 2,5 | KOI 2,5 / 8 | 100 | 8,4 | 2,3 | 11,00 | 11,0 | 28,0 | 12,0 | blue |
| 4 ÷ 6 | KOI 6 / 3 | 100 | 3,7 | 3,6 | 8,25 | 13,7 | 26,7 | 9,5 | yellow |
| 4 ÷ 6 | KOI 6 / 4 | 100 | 4,3 | 3,6 | 8,25 | 13,7 | 26,7 | 9,5 | yellow |
| 4 ÷ 6 | KOI 6 / 5 | 100 | 5,3 | 3,6 | 8,25 | 13,7 | 26,7 | 9,5 | yellow |
| 4 ÷ 6 | KOI 6 / 6 | 100 | 6,4 | 3,6 | 13,00 | 13,7 | 32,7 | 12,0 | yellow |
| 4 ÷ 6 | KOI 6 / 8 | 100 | 8,4 | 3,6 | 13,70 | 13,7 | 34,9 | 15,0 | yellow |

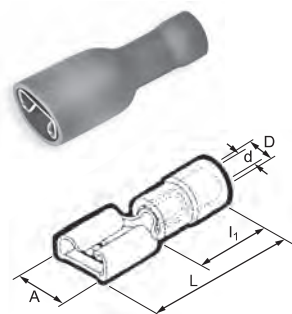
**KOI - Insulated tinned ring terminals,
acc. to DIN standard - next**

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | | Insulation colour |
|---------------------------------------|--------------|---------------|-----------------|-----|-------|----------------|------|------|-------------------|
| | | | d ₁ | d | l | l ₁ | L | A | |
| 10 | KOI 10 / 6 | 100 | 6,4 | 4,5 | 8,25 | 16,0 | 31,0 | 11,0 | red |
| 10 | KOI 10 / 8 | 100 | 8,4 | 4,5 | 13,70 | 16,0 | 35,0 | 14,0 | red |
| 10 | KOI 10 / 10 | 100 | 10,5 | 4,5 | 14,50 | 16,0 | 38,0 | 18,0 | red |
| 16 | KOI 16 / 6 | 100 | 6,4 | 5,8 | 13,0 | 20,0 | 36,0 | 12,0 | blue |
| 16 | KOI 16 / 8 | 100 | 8,4 | 5,8 | 13,70 | 20,0 | 39,0 | 14,0 | blue |
| 16 | KOI 16 / 10 | 100 | 10,5 | 5,8 | 14,50 | 20,0 | 43,0 | 18,0 | blue |



**NI - Partially insulated tinned female connectors
acc. to DIN standard**

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | Insulation colour |
|---------------------------------------|--------------------|---------------|-----------------|-----|----------------|------|-----|-------------------|
| | | | D | d | l ₁ | L | A | |
| 0,5 ÷ 1,5 | NI 2,8 - 1 - 0,8 | 100 | 3,5 | 1,8 | 9,7 | 18,5 | 3,0 | red |
| 0,5 ÷ 1,5 | NI 4,8 - 1 - 0,8 | 100 | 3,5 | 1,8 | 9,7 | 19,0 | 5,0 | red |
| 0,5 ÷ 1,5 | NI 6,3 - 1 - 0,8 | 100 | 3,5 | 1,8 | 9,7 | 20,5 | 6,8 | red |
| 1,5 ÷ 2,5 | NI 2,8 - 2,5 - 0,8 | 100 | 4,0 | 2,3 | 9,7 | 18,5 | 3,0 | blue |
| 1,5 ÷ 2,5 | NI 4,8 - 2,5 - 0,8 | 100 | 4,0 | 2,3 | 9,7 | 19,0 | 5,0 | blue |
| 1,5 ÷ 2,5 | NI 6,3 - 2,5 - 0,8 | 100 | 4,0 | 2,3 | 9,7 | 20,5 | 6,8 | blue |
| 4 ÷ 6 | NI 6,3 - 6 - 0,8 | 100 | 5,4 | 3,5 | 13,7 | 24,5 | 6,8 | yellow |



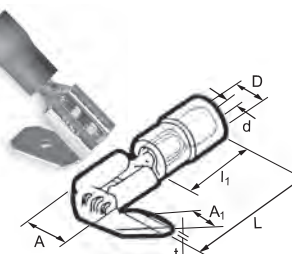
**NII - Fully insulated tinned female connectors
acc. to DIN standard**

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | Insulation colour |
|---------------------------------------|---------------------|---------------|-----------------|-----|----------------|------|-----|-------------------|
| | | | D | d | l ₁ | L | A | |
| 0,5 ÷ 1,5 | NII 6,3 - 1 - 0,8 | 100 | 3,5 | 1,8 | 10 | 23,5 | 6,8 | red |
| 1,5 ÷ 2,5 | NII 6,3 - 2,5 - 0,8 | 100 | 4,0 | 2,3 | 10 | 23,5 | 6,8 | blue |
| 4 ÷ 6 | NII 6,3 - 6 - 0,8 | 100 | 5,4 | 3,5 | 11 | 24,0 | 6,8 | yellow |



**WI - Partially insulated tinned male connectors
acc. to DIN standard**

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | | Insulation colour |
|---------------------------------------|--------------------|---------------|-----------------|-----|----------------|------|-----|-----|-------------------|
| | | | D | d | l ₁ | L | A | t | |
| 0,5 ÷ 1,5 | WI 2,8 - 1 - 0,8 | 100 | 3,5 | 1,8 | 9,7 | 18,5 | 2,8 | 0,8 | red |
| 0,5 ÷ 1,5 | WI 4,8 - 1 - 0,8 | 100 | 3,5 | 1,8 | 9,7 | 19,0 | 4,8 | 0,8 | red |
| 0,5 ÷ 1,5 | WI 6,3 - 1 - 0,8 | 100 | 3,5 | 1,8 | 9,7 | 20,5 | 6,3 | 0,8 | red |
| 1,5 ÷ 2,5 | WI 2,8 - 2,5 - 0,8 | 100 | 4,0 | 2,3 | 9,7 | 18,5 | 2,8 | 0,8 | blue |
| 1,5 ÷ 2,5 | WI 4,8 - 2,5 - 0,8 | 100 | 4,0 | 2,3 | 9,7 | 19,0 | 4,8 | 0,8 | blue |
| 1,5 ÷ 2,5 | WI 6,3 - 2,5 - 0,8 | 100 | 4,0 | 2,3 | 9,7 | 20,5 | 6,3 | 0,8 | blue |
| 4 ÷ 6 | WI 6,3 - 6 - 0,8 | 100 | 5,4 | 3,5 | 13,7 | 24,5 | 6,3 | 0,8 | yellow |



**NWI - Partially insulated tinned piggyback connectors
acc. to DIN standard**

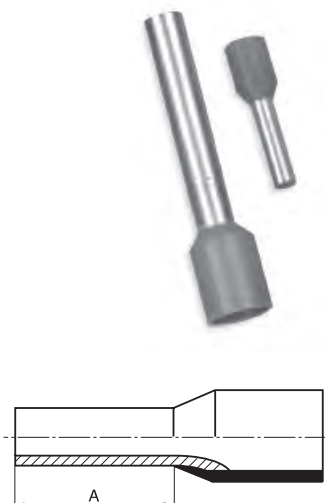
| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | | | Insulation colour | |
|---------------------------------------|---------------------|---------------|-----------------|-----|----------------|------|-----|----------------|-------------------|--------|
| | | | D | d | l ₁ | L | A | A ₁ | | t |
| 0,5 ÷ 1,5 | NWI 6,3 - 1 - 0,8 | 100 | 3,9 | 1,8 | 10,0 | 22,0 | 6,8 | 6,3 | 0,8 | red |
| 1,5 ÷ 2,5 | NWI 6,3 - 2,5 - 0,8 | 100 | 4,2 | 2,3 | 10,0 | 22,0 | 6,8 | 6,3 | 0,8 | blue |
| 4 ÷ 6 | NWI 6,3 - 6 - 0,8 | 100 | 5,5 | 3,5 | 10,0 | 22,5 | 6,8 | 6,3 | 0,8 | yellow |

H - Tinned sleeving terminals, not insulated, acc. to DIN standard



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|---------------|-----------------|------|------|
| | | | A | B | C |
| 0,5 | H 0,5 - 6 | 100 | 6 | 1,3 | 2,1 |
| 0,5 | H 0,5 - 8 | 100 | 8 | 1,3 | 2,1 |
| 0,5 | H 0,5 - 10 | 100 | 10 | 1,3 | 2,1 |
| 0,75 | H 0,75 - 6 | 100 | 6 | 1,5 | 2,3 |
| 0,75 | H 0,75 - 8 | 100 | 8 | 1,5 | 2,3 |
| 0,75 | H 0,75 - 10 | 100 | 10 | 1,5 | 2,3 |
| 1 | H 1 - 6 | 100 | 6 | 1,7 | 2,5 |
| 1 | H 1 - 8 | 100 | 8 | 1,7 | 2,5 |
| 1 | H 1 - 10 | 100 | 10 | 1,7 | 2,5 |
| 1,5 | H 1,5 - 8 | 100 | 8 | 2,0 | 2,8 |
| 1,5 | H 1,5 - 10 | 100 | 10 | 2,0 | 2,8 |
| 1,5 | H 1,5 - 12 | 100 | 12 | 2,0 | 2,8 |
| 2,5 | H 2,5 - 8 | 100 | 8 | 2,5 | 3,4 |
| 2,5 | H 2,5 - 10 | 100 | 10 | 2,5 | 3,4 |
| 2,5 | H 2,5 - 12 | 100 | 12 | 2,5 | 3,4 |
| 4 | H 4 - 10 | 100 | 10 | 3,2 | 4,0 |
| 4 | H 4 - 12 | 100 | 12 | 3,2 | 4,0 |
| 4 | H 4 - 18 | 100 | 18 | 3,2 | 4,0 |
| 6 | H 6 - 12 | 100 | 12 | 3,9 | 4,7 |
| 6 | H 6 - 18 | 100 | 18 | 3,9 | 4,7 |
| 10 | H 10 - 12 | 100 | 12 | 4,9 | 5,8 |
| 10 | H 10 - 15 | 100 | 15 | 4,9 | 5,8 |
| 10 | H 10 - 18 | 100 | 18 | 4,9 | 5,8 |
| 16 | H 16 - 12 | 100 | 12 | 6,2 | 7,5 |
| 16 | H 16 - 15 | 100 | 15 | 6,2 | 7,5 |
| 16 | H 16 - 18 | 100 | 18 | 6,2 | 7,5 |
| 25 | H 25 - 16 | 100 | 16 | 7,7 | 9,5 |
| 25 | H 25 - 22 | 100 | 22 | 7,7 | 9,5 |
| 35 | H 35 - 16 | 50 | 16 | 8,7 | 11,0 |
| 35 | H 35 - 18 | 50 | 18 | 8,7 | 11,0 |
| 35 | H 35 - 25 | 50 | 25 | 8,7 | 11,0 |
| 50 | H 50 - 20 | 50 | 20 | 10,9 | 13,0 |
| 50 | H 50 - 25 | 50 | 25 | 10,9 | 13,0 |
| 70 | H 70 - 22 | 50 | 22 | 14,3 | 15,3 |
| 95 | H 95 - 25 | 25 | 25 | 15,3 | 17,0 |
| 120 | H 120 - 30 | 25 | 30 | 17,5 | 19,0 |
| 150 | H 150 - 32 | 25 | 32 | 19,5 | 21,0 |

HI - Tinned sleeving terminals, insulated in required color, acc. to DIN standard

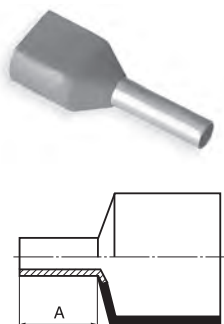


| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | Insulation colour |
|---------------------------------------|--------------|---------------|-----------------|-------------------|
| 0,25 | HI 0,25 - 6 | 100 | 6 | yellow |
| 0,25 | HI 0,25 - 8 | 100 | 8 | yellow |
| 0,34 | HI 0,34 - 6 | 100 | 6 | turquoise |
| 0,34 | HI 0,34 - 8 | 100 | 8 | turquoise |
| 0,5 | HI 0,5 - 6 | 100 | 6 | white |
| 0,5 | HI 0,5 - 8 | 100 | 8 | white |
| 0,5 | HI 0,5 - 10 | 100 | 10 | white |
| 0,75 | HI 0,75 - 6 | 100 | 6 | gray |
| 0,75 | HI 0,75 - 8 | 100 | 8 | gray |
| 0,75 | HI 0,75 - 10 | 100 | 10 | gray |
| 0,75 | HI 0,75 - 12 | 100 | 12 | gray |
| 1 | HI 1 - 6 | 100 | 6 | red |
| 1 | HI 1 - 8 | 100 | 8 | red |
| 1 | HI 1 - 10 | 100 | 10 | red |
| 1 | HI 1 - 12 | 100 | 12 | red |
| 1,5 | HI 1,5 - 8 | 100 | 8 | black |
| 1,5 | HI 1,5 - 10 | 100 | 10 | black |
| 1,5 | HI 1,5 - 12 | 100 | 12 | black |
| 1,5 | HI 1,5 - 18 | 100 | 18 | black |
| 2,5 | HI 2,5 - 8 | 100 | 8 | blue |
| 2,5 | HI 2,5 - 10 | 100 | 10 | blue |
| 2,5 | HI 2,5 - 12 | 100 | 12 | blue |
| 2,5 | HI 2,5 - 18 | 100 | 18 | blue |

HI - Tinned sleeving terminals,
insulated in required color, acc. to DIN standard - next

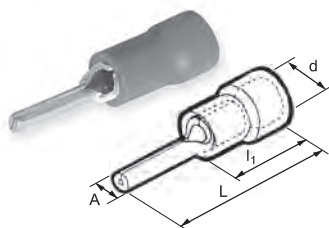
| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions A [mm] | Insulation colour |
|---------------------------------------|--------------|---------------|-------------------|-------------------|
| 4 | HI 4 - 10 | 100 | 10 | grey |
| 4 | HI 4 - 12 | 100 | 12 | grey |
| 4 | HI 4 - 18 | 100 | 18 | grey |
| 6 | HI 6 - 12 | 100 | 12 | yellow |
| 6 | HI 6 - 18 | 100 | 18 | yellow |
| 10 | HI 10 - 12 | 100 | 12 | red |
| 10 | HI 10 - 18 | 100 | 18 | red |
| 16 | HI 16 - 12 | 100 | 12 | blue |
| 16 | HI 16 - 18 | 100 | 18 | blue |
| 25 | HI 25 - 16 | 100 | 16 | yellow |
| 25 | HI 25 - 22 | 100 | 22 | yellow |
| 35 | HI 35 - 16 | 50 | 16 | red |
| 35 | HI 35 - 18 | 50 | 18 | red |
| 35 | HI 35 - 25 | 50 | 25 | red |
| 50 | HI 50 - 20 | 50 | 20 | blue |
| 70 | HI 70 - 20 | 50 | 20 | yellow |
| 95 | HI 95 - 25 | 25 | 25 | red |
| 120 | HI 120 - 27 | 25 | 27 | blue |
| 150 | HI 150 - 32 | 25 | 32 | yellow |

HI 2x - Tinned double sleeving terminals,
insulated in required color, acc. to DIN standard



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions A [mm] | Insulation colour |
|---------------------------------------|------------------|---------------|-------------------|-------------------|
| 0,5 | HI 2 x 0,5 - 8 | 100 | 8 | white |
| 0,75 | HI 2 x 0,75 - 8 | 100 | 8 | grey |
| 0,75 | HI 2 x 0,75 - 10 | 100 | 10 | grey |
| 1 | HI 2 x 1 - 8 | 100 | 8 | red |
| 1 | HI 2 x 1 - 10 | 100 | 10 | red |
| 1,5 | HI 2 x 1,5 - 8 | 100 | 8 | black |
| 1,5 | HI 2 x 1,5 - 12 | 100 | 12 | black |
| 2,5 | HI 2 x 2,5 - 10 | 100 | 10 | blue |
| 2,5 | HI 2 x 2,5 - 13 | 100 | 13 | blue |
| 4 | HI 2 x 4 - 12 | 100 | 12 | grey |
| 6 | HI 2 x 6 - 14 | 100 | 14 | yellow |
| 10 | HI 2 x 10 - 14 | 100 | 14 | red |
| 16 | HI 2 x 16 - 14 | 100 | 14 | blue |

KBI - Insulated tinned terminals acc. to DIN standard with bolts



| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions A [mm] | | | | Insulation colour |
|---------------------------------------|--------------|---------------|-------------------|----------------|------|-----|-------------------|
| | | | d | l ₁ | L | A | |
| 0,5 ÷ 1,5 | KBI 1,5 | 100 | 4,0 | 10,7 | 22,7 | 2,0 | red |
| 1,5 ÷ 2,5 | KBI 2,5 | 100 | 4,5 | 10,7 | 22,7 | 2,0 | blue |
| 4 ÷ 6 | KBI 6 | 100 | 6,3 | 13,7 | 22,7 | 2,7 | yellow |

ZHI - Sets of insulated tinned sleeving terminals

NEW

The set elements are packed in handy box of dimensions 210 x 105 x 50 mm.



Box ZHI 1

| Product type | Packing [pcs] |
|--------------|---------------|
| HI 0,25 - 6 | 100 |
| HI 0,25 - 8 | 100 |
| HI 0,34 - 6 | 100 |
| HI 0,34 - 8 | 100 |
| HI 0,5 - 6 | 100 |
| HI 0,5 - 8 | 100 |
| HI 0,75 - 6 | 100 |
| HI 0,75 - 8 | 100 |
| HI 1 - 8 | 100 |
| HI 1,5 - 10 | 100 |
| HI 2,5 - 10 | 100 |
| HI 4 - 12 | 100 |
| HI 6 - 12 | 100 |

Box ZHI 2

| Product type | Packing [pcs] |
|--------------|---------------|
| HI 0,5 - 8 | 200 |
| HI 0,75 - 8 | 200 |
| HI 1 - 8 | 200 |
| HI 1,5 - 10 | 200 |
| HI 2,5 - 10 | 200 |
| HI 4 - 12 | 100 |

Box ZHI 3

| Product type | Packing [pcs] |
|--------------|---------------|
| HI 1,5 - 10 | 100 |
| HI 2,5 - 10 | 100 |
| HI 4 - 12 | 100 |
| HI 6 - 12 | 50 |
| HI 10 - 12 | 50 |
| HI 16 - 12 | 50 |



Copper cable ferrules



Non-standard ferrules are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals
- page no. 33

Application

Copper cable ferrules are applied for connection of copper conductors. They increase the safety and life of connection. For connection of copper conductors as "the overlap" apply the ZW parallel copper ferrules. In heating industry, the ZCS 4 ferrules (copper, tinned, with the partition) apply for execution of warning systems of preinsulated pipes. The ferrules marked with "O" letter can be use for 10 ÷ 30kV voltage.

Assembling

In order to make the durable assembling of ferrule, it should be pressed by using the suitable press (in case of sector cores - the core should be first formed round).

Technical data

Full accordance with DIN 46 235 standard of DZ and DZs type terminals. In case of remaining terminals accordance with DIN standard concerns only their tubular part.

Material: copper pipes and bars of grade Cu-ETP acc. with PN-EN 13600, PN-EN 13601.

Insulation made of PCV and for ZKIT type connectors made of radiation crosslinked polyethylene of working temperature from - 55°C to +105°C.

Z - Ferrules without galvanic coating

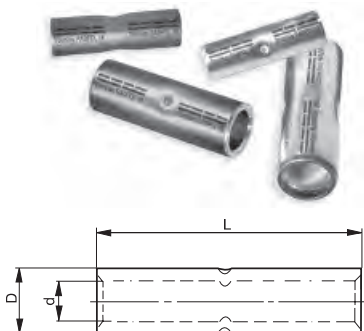
Zs - Tinned ferrules



| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|--------|---------------|-----------------|------|-----|
| | Z | Zs | | D | d | L |
| 0,5 ÷ 1,5 | - | Zs 1 | 100 | 3,7 | 1,8 | 16 |
| 1,5 ÷ 2,5 | Z 2,5 | Zs 2,5 | 100 | 4,0 | 2,4 | 15 |
| 4 | Z 4 | Zs 4 | 100 | 4,5 | 2,9 | 15 |
| 6 | Z 6 | Zs 6 | 100 | 5,9 | 4,0 | 25 |
| 10 | Z 10 | Zs 10 | 100 | 6,6 | 4,5 | 30 |
| 16 | Z 16 | Zs 16 | 50 | 8,5 | 5,5 | 29 |
| 25 | Z 25 | Zs 25 | 50 | 10,0 | 7,0 | 33 |
| 35 | Z 35 | Zs 35 | 50 | 12,0 | 8,5 | 39 |
| 50 | Z 50 | Zs 50 | 20 | 14,0 | 10,0 | 45 |
| 70 | Z 70 | Zs 70 | 20 | 16,5 | 12,1 | 47 |
| 95 | Z 95 | Zs 95 | 20 | 18,0 | 13,6 | 53 |
| 120 | Z 120 | Zs 120 | 10 | 19,5 | 15,1 | 64 |
| 150 | Z 150 | Zs 150 | 10 | 21,0 | 16,5 | 68 |
| 185 | Z 185 | Zs 185 | 10 | 24,0 | 19,0 | 75 |
| 240 | Z 240 | Zs 240 | 10 | 26,0 | 21,0 | 85 |
| 300 | Z 300 | Zs 300 | 1 | 30,0 | 24,0 | 100 |

DZ - Ferrules acc. to DIN standard without galvanic coating

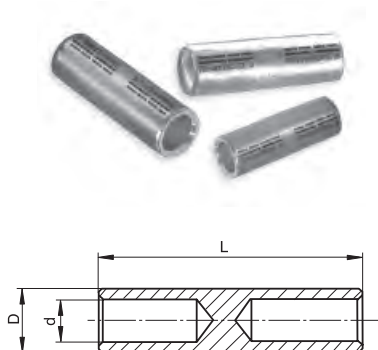
DZs - Tinned ferrules acc. to DIN standard



| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|---------|---------------|-----------------|------|-----|
| | DZ | DZs | | D | d | L |
| 16 | DZ 16 | DZs 16 | 50 | 8,5 | 5,5 | 50 |
| 25 | DZ 25 | DZs 25 | 50 | 10,0 | 7,0 | 50 |
| 35 | DZ 35 | DZs 35 | 50 | 12,5 | 8,2 | 50 |
| 50 | DZ 50 | DZs 50 | 20 | 14,5 | 10,0 | 56 |
| 70 | DZ 70 | DZs 70 | 20 | 16,5 | 11,5 | 56 |
| 95 | DZ 95 | DZs 95 | 20 | 19,0 | 13,5 | 70 |
| 120 | DZ 120 | DZs 120 | 10 | 21,0 | 15,5 | 70 |
| 150 | DZ 150 | DZs 150 | 10 | 23,5 | 17,0 | 80 |
| 185 | DZ 185 | DZs 185 | 10 | 25,5 | 19,0 | 85 |
| 240 | DZ 240 | DZs 240 | 10 | 29,0 | 21,5 | 90 |
| 300* | DZ 300 | DZs 300 | 1 | 32,0 | 24,5 | 100 |
| 400* | DZ 400 | DZs 400 | 1 | 38,5 | 27,5 | 150 |
| 500* | DZ 500 | DZs 500 | 1 | 42,0 | 31,0 | 160 |
| 625* | DZ 625 | DZs 625 | 1 | 44,0 | 34,5 | 160 |

DZp - Ferrules with the partition acc. to DIN standard without galvanic coating

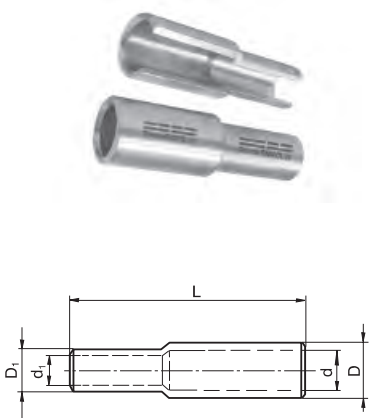
DZps - Tinned ferrules with the partition acc. to DIN standard



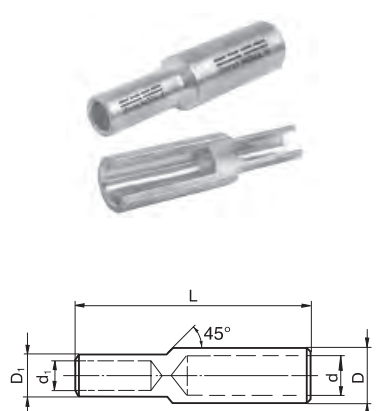
| Core cross section [mm ²] | Product name | | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|----------|---------------|-----------------|------|----|
| | | | | D | d | L |
| 16 | DZp 16 | DZps 16 | 1 | 8,5 | 5,5 | 53 |
| 25 | DZp 25 | DZps 25 | 1 | 10,0 | 7,0 | 53 |
| 35 | DZp 35 | DZps 35 | 1 | 12,5 | 8,2 | 53 |
| 50 | DZp 50 | DZps 50 | 1 | 14,5 | 10,0 | 60 |
| 70 | DZp 70 | DZps 70 | 1 | 16,5 | 11,5 | 60 |
| 95 | DZp 95 | DZps 95 | 1 | 19,0 | 13,5 | 74 |
| 120 | DZp 120 | DZps 120 | 1 | 21,0 | 15,5 | 74 |
| 150 | DZp 150 | DZps 150 | 1 | 23,5 | 17,0 | 82 |
| 185 | DZp 185 | DZps 185 | 1 | 25,5 | 19,0 | 87 |
| 240 | DZp 240 | DZps 240 | 1 | 29,0 | 21,5 | 93 |

DZR - Reducing ferrules acc. to DIN standard without galvanic coating

DZRs - Tinned reducing ferrules acc. to DIN standard



| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|---------|---------------|----------------|-----------------|----------------|------|----------------|------|----|
| input | initial | | | D | D ₁ | d | d ₁ | L | |
| 16 | 10 | DZR 16 / 10 | DZRs 16 / 10 | 1 | 8,5 | 6,0 | 5,5 | 4,5 | 40 |
| 25 | 10 | DZR 25 / 10 | DZRs 25 / 10 | 1 | 10,0 | 6,0 | 7,0 | 4,5 | 40 |
| 25 | 16 | DZR 25 / 16 | DZRs 25 / 16 | 1 | 10,0 | 8,5 | 7,0 | 5,5 | 50 |
| 35 | 16 | DZR 35 / 16 | DZRs 35 / 16 | 1 | 12,5 | 8,5 | 8,2 | 5,5 | 50 |
| 35 | 25 | DZR 35 / 25 | DZRs 35 / 25 | 1 | 12,5 | 10,0 | 8,2 | 7,0 | 50 |
| 50 | 25 | DZR 50 / 25 | DZRs 50 / 25 | 1 | 14,5 | 10,0 | 10,0 | 7,0 | 55 |
| 50 | 35 | DZR 50 / 35 | DZRs 50 / 35 | 1 | 14,5 | 12,5 | 10,0 | 8,2 | 55 |
| 70 | 35 | DZR 70 / 35 | DZRs 70 / 35 | 1 | 16,5 | 12,5 | 11,5 | 8,2 | 55 |
| 70 | 50 | DZR 70 / 50 | DZRs 70 / 50 | 1 | 16,5 | 14,5 | 11,5 | 10,0 | 55 |
| 95 | 50 | DZR 95 / 50 | DZRs 95 / 50 | 1 | 19,0 | 14,5 | 13,5 | 10,0 | 70 |
| 95 | 70 | DZR 95 / 70 | DZRs 95 / 70 | 1 | 19,0 | 16,5 | 13,5 | 11,5 | 70 |
| 120 | 50 | DZR 120 / 50 | DZRs 120 / 50 | 1 | 21,0 | 14,5 | 15,5 | 10,0 | 70 |
| 120 | 70 | DZR 120 / 70 | DZRs 120 / 70 | 1 | 21,0 | 16,5 | 15,5 | 11,5 | 70 |
| 120 | 95 | DZR 120 / 95 | DZRs 120 / 95 | 1 | 21,0 | 19,0 | 15,5 | 13,5 | 70 |
| 150 | 70 | DZR 150 / 70 | DZRs 150 / 70 | 1 | 23,5 | 16,5 | 17,0 | 11,5 | 80 |
| 150 | 95 | DZR 150 / 95 | DZRs 150 / 95 | 1 | 23,5 | 19,0 | 17,0 | 13,5 | 80 |
| 150 | 120 | DZR 150 / 120 | DZRs 150 / 120 | 1 | 23,5 | 21,0 | 17,0 | 15,5 | 80 |
| 185 | 95 | DZR 185 / 95 | DZRs 185 / 95 | 1 | 25,5 | 19,0 | 19,0 | 13,5 | 85 |
| 185 | 120 | DZR 185 / 120 | DZRs 185 / 120 | 1 | 25,5 | 21,0 | 19,0 | 15,5 | 85 |
| 185 | 150 | DZR 185 / 150 | DZRs 185 / 150 | 1 | 25,5 | 23,5 | 19,0 | 17,0 | 85 |
| 240 | 120 | DZR 240 / 120 | DZRs 240 / 120 | 1 | 29,0 | 21,0 | 21,5 | 15,5 | 95 |
| 240 | 150 | DZR 240 / 150 | DZRs 240 / 150 | 1 | 29,0 | 23,5 | 21,5 | 17,0 | 95 |
| 240 | 185 | DZR 240 / 185 | DZRs 240 / 185 | 1 | 29,0 | 25,5 | 21,5 | 19,0 | 95 |



Reducing ferrules acc. to DIN standard with leakproof partition:

DZRp - without galvanic coating

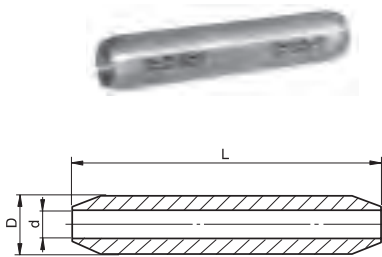
DZRps - tinned

| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|---------------------------------------|---------|--------------|---------------|-----------------|----------------|------|----------------|-----|----|
| input | initial | | | D | D ₁ | d | d ₁ | L | |
| 16 | 10 | DZRp 16 / 10 | DZRps 16 / 10 | 1 | 8,5 | 6,0 | 5,5 | 4,5 | 45 |
| 25 | 10 | DZRp 25 / 10 | DZRps 25 / 10 | 1 | 10,0 | 6,0 | 7,0 | 4,5 | 45 |
| 25 | 16 | DZRp 25 / 16 | DZRps 25 / 16 | 1 | 10,0 | 8,5 | 7,0 | 5,5 | 55 |
| 35 | 16 | DZRp 35 / 16 | DZRps 35 / 16 | 1 | 12,5 | 8,5 | 8,2 | 5,5 | 55 |
| 35 | 25 | DZRp 35 / 25 | DZRps 35 / 25 | 1 | 12,5 | 10,0 | 8,2 | 7,0 | 55 |

Reducing ferrules acc. to DIN standard with leakproof partition:
 DZRp - without galvanic coating - next
 DZRps - tinned - next

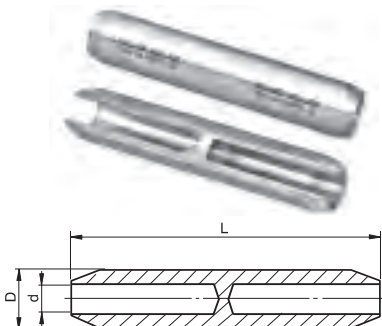
| Core cross section [mm ²] | | Product name | | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|---------|----------------|-----------------|---------------|-----------------|----------------|------|----------------|-----|
| input | initial | | | | D | D ₁ | d | d ₁ | L |
| 50 | 25 | DZRp 50 / 25 | DZRps 50 / 25 | 1 | 14,5 | 10,0 | 10,0 | 7,0 | 60 |
| 50 | 35 | DZRp 50 / 35 | DZRps 50 / 35 | 1 | 14,5 | 12,5 | 10,0 | 8,2 | 60 |
| 70 | 35 | DZRp 70 / 35 | DZRps 70 / 35 | 1 | 16,5 | 12,5 | 11,5 | 8,2 | 60 |
| 70 | 50 | DZRp 70 / 50 | DZRps 70 / 50 | 1 | 16,5 | 14,5 | 11,5 | 10,0 | 60 |
| 95 | 50 | DZRp 95 / 50 | DZRps 95 / 50 | 1 | 19,0 | 14,5 | 13,5 | 10,0 | 75 |
| 95 | 70 | DZRp 95 / 70 | DZRps 95 / 70 | 1 | 19,0 | 16,5 | 13,5 | 11,5 | 75 |
| 120 | 35 | DZRp 120 / 35 | DZRps 120 / 35 | 1 | 21,0 | 12,5 | 15,5 | 8,2 | 75 |
| 120 | 50 | DZRp 120 / 50 | DZRps 120 / 50 | 1 | 21,0 | 14,5 | 15,5 | 10,0 | 75 |
| 120 | 70 | DZRp 120 / 70 | DZRps 120 / 70 | 1 | 21,0 | 16,5 | 15,5 | 11,5 | 75 |
| 120 | 95 | DZRp 120 / 95 | DZRps 120 / 95 | 1 | 21,0 | 19,0 | 15,5 | 13,5 | 75 |
| 150 | 50 | DZRp 150 / 50 | DZRps 150 / 50 | 1 | 23,5 | 14,5 | 17,0 | 10,0 | 85 |
| 150 | 70 | DZRp 150 / 70 | DZRps 150 / 70 | 1 | 23,5 | 16,5 | 17,0 | 11,5 | 85 |
| 150 | 95 | DZRp 150 / 95 | DZRps 150 / 95 | 1 | 23,5 | 19,0 | 17,0 | 13,5 | 85 |
| 150 | 120 | DZRp 150 / 120 | DZRps 150 / 120 | 1 | 23,5 | 21,0 | 17,0 | 15,5 | 85 |
| 185 | 50 | DZRp 185 / 50 | DZRps 185 / 50 | 1 | 25,5 | 14,5 | 19,0 | 10,0 | 90 |
| 185 | 70 | DZRp 185 / 70 | DZRps 185 / 70 | 1 | 25,5 | 16,5 | 19,0 | 11,5 | 90 |
| 185 | 95 | DZRp 185 / 95 | DZRps 185 / 95 | 1 | 25,5 | 19,0 | 19,0 | 13,5 | 90 |
| 185 | 120 | DZRp 185 / 120 | DZRps 185 / 120 | 1 | 25,5 | 21,0 | 19,0 | 15,5 | 90 |
| 185 | 150 | DZRp 185 / 150 | DZRps 185 / 150 | 1 | 25,5 | 23,5 | 19,0 | 17,0 | 90 |
| 240 | 70 | DZRp 240 / 70 | DZRps 240 / 70 | 1 | 29,0 | 16,5 | 21,5 | 11,5 | 100 |
| 240 | 95 | DZRp 240 / 95 | DZRps 240 / 95 | 1 | 29,0 | 19,0 | 21,5 | 13,5 | 100 |
| 240 | 120 | DZRp 240 / 120 | DZRps 240 / 120 | 1 | 29,0 | 21,0 | 21,5 | 15,5 | 100 |
| 240 | 150 | DZRp 240 / 150 | DZRps 240 / 150 | 1 | 29,0 | 23,5 | 21,5 | 17,0 | 100 |
| 240 | 185 | DZRp 240 / 185 | DZRps 240 / 185 | 1 | 29,0 | 25,5 | 21,5 | 19,0 | 100 |

Ferrules for MV cables of 10 ÷ 30kV, acc. to DIN standard:
 DZO - without galvanic coating
 DZOs - tinned



| Core cross section [mm ²] | | Product name | | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|---------|--------------|--|---------------|-----------------|------|-----|
| | | | | | D | d | L |
| 16 | DZO 16 | DZOs 16 | | 1 | 8,5 | 5,5 | 60 |
| 25 | DZO 25 | DZOs 25 | | 1 | 10,0 | 7,0 | 60 |
| 35 | DZO 35 | DZOs 35 | | 1 | 12,5 | 8,2 | 60 |
| 50 | DZO 50 | DZOs 50 | | 1 | 14,5 | 10,0 | 65 |
| 70 | DZO 70 | DZOs 70 | | 1 | 16,5 | 11,5 | 65 |
| 95 | DZO 95 | DZOs 95 | | 1 | 19,0 | 13,5 | 90 |
| 120 | DZO 120 | DZOs 120 | | 1 | 21,0 | 15,5 | 90 |
| 150 | DZO 150 | DZOs 150 | | 1 | 23,5 | 17,0 | 105 |
| 185 | DZO 185 | DZOs 185 | | 1 | 25,5 | 19,0 | 105 |
| 240 | DZO 240 | DZOs 240 | | 1 | 29,0 | 21,5 | 125 |

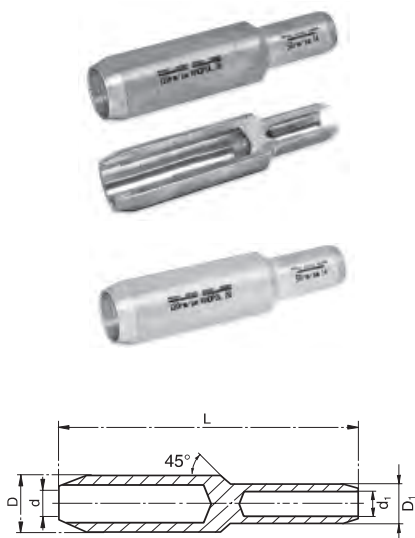
Ferrules with the partition for MV cables of 10 ÷ 30kV,
 acc. to DIN standard:
 DZOOp - without galvanic coating
 DZOOp - tinned



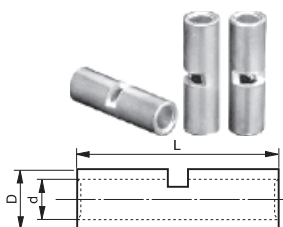
| Core cross section [mm ²] | | Product name | | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|-----------|--------------|--|---------------|-----------------|------|-----|
| | | | | | D | d | L |
| 16 | DZOOp 16 | DZOOp 16 | | 1 | 8,5 | 5,5 | 60 |
| 25 | DZOOp 25 | DZOOp 25 | | 1 | 10,0 | 7,0 | 60 |
| 35 | DZOOp 35 | DZOOp 35 | | 1 | 12,5 | 8,2 | 60 |
| 50 | DZOOp 50 | DZOOp 50 | | 1 | 14,5 | 10,0 | 70 |
| 70 | DZOOp 70 | DZOOp 70 | | 1 | 16,5 | 11,5 | 70 |
| 95 | DZOOp 95 | DZOOp 95 | | 1 | 19,0 | 13,5 | 95 |
| 120 | DZOOp 120 | DZOOp 120 | | 1 | 21,0 | 15,5 | 95 |
| 150 | DZOOp 150 | DZOOp 150 | | 1 | 23,5 | 17,0 | 110 |
| 185 | DZOOp 185 | DZOOp 185 | | 1 | 25,5 | 19,0 | 110 |
| 240 | DZOOp 240 | DZOOp 240 | | 1 | 29,0 | 21,5 | 130 |

Reducing ferrules with the partition, for MV cables of 10 ÷ 30kV, acc. to DIN standard:

DZROp - without galvanic coating, DZROps - tinned



| Core cross section [mm ²] | | Product name | | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|---------|-----------------|------------------|---------------|-----------------|----------------|------|----------------|-----|
| input | initial | | | | D | D ₁ | d | d ₁ | L |
| 16 | 10 | DZROp 16 / 10 | DZROps 16 / 10 | 1 | 8,5 | 6,0 | 5,5 | 4,5 | 55 |
| 25 | 10 | DZROp 25 / 10 | DZROps 25 / 10 | 1 | 10,0 | 6,0 | 7,0 | 4,5 | 60 |
| 25 | 16 | DZROp 25 / 16 | DZROps 25 / 16 | 1 | 10,0 | 8,5 | 7,0 | 5,5 | 60 |
| 35 | 16 | DZROp 35 / 16 | DZROps 35 / 16 | 1 | 12,5 | 8,5 | 8,5 | 5,5 | 60 |
| 35 | 25 | DZROp 35 / 25 | DZROps 35 / 25 | 1 | 12,5 | 10,0 | 8,5 | 7,0 | 60 |
| 50 | 25 | DZROp 50 / 25 | DZROps 50 / 25 | 1 | 14,5 | 10,0 | 10,0 | 7,0 | 70 |
| 50 | 35 | DZROp 50 / 35 | DZROps 50 / 35 | 1 | 14,5 | 12,5 | 10,0 | 8,5 | 70 |
| 70 | 35 | DZROp 70 / 35 | DZROps 70 / 35 | 1 | 16,5 | 12,5 | 11,5 | 8,5 | 70 |
| 70 | 50 | DZROp 70 / 50 | DZROps 70 / 50 | 1 | 16,5 | 14,5 | 11,5 | 10,0 | 70 |
| 95 | 35 | DZROp 95 / 35 | DZROps 95 / 35 | 1 | 19,0 | 12,5 | 13,5 | 8,5 | 95 |
| 95 | 50 | DZROp 95 / 50 | DZROps 95 / 50 | 1 | 19,0 | 14,5 | 13,5 | 10,0 | 95 |
| 95 | 70 | DZROp 95 / 70 | DZROps 95 / 70 | 1 | 19,0 | 16,5 | 13,5 | 11,5 | 95 |
| 120 | 35 | DZROp 120 / 35 | DZROps 120 / 35 | 1 | 21,0 | 12,5 | 15,5 | 8,5 | 95 |
| 120 | 50 | DZROp 120 / 50 | DZROps 120 / 50 | 1 | 21,0 | 14,5 | 15,5 | 10,0 | 95 |
| 120 | 70 | DZROp 120 / 70 | DZROps 120 / 70 | 1 | 21,0 | 16,5 | 15,5 | 11,5 | 95 |
| 120 | 95 | DZROp 120 / 95 | DZROps 120 / 95 | 1 | 21,0 | 19,0 | 15,5 | 13,5 | 95 |
| 150 | 50 | DZROp 150 / 50 | DZROps 150 / 50 | 1 | 23,5 | 14,5 | 17,0 | 10,0 | 110 |
| 150 | 70 | DZROp 150 / 70 | DZROps 150 / 70 | 1 | 23,5 | 16,5 | 17,0 | 11,5 | 110 |
| 150 | 95 | DZROp 150 / 95 | DZROps 150 / 95 | 1 | 23,5 | 19,0 | 17,0 | 13,5 | 110 |
| 150 | 120 | DZROp 150 / 120 | DZROps 150 / 120 | 1 | 23,5 | 21,0 | 17,0 | 15,5 | 110 |
| 185 | 95 | DZROp 185 / 95 | DZROps 185 / 95 | 1 | 25,5 | 19,0 | 19,0 | 16,5 | 110 |
| 185 | 120 | DZROp 185 / 120 | DZROps 185 / 120 | 1 | 25,5 | 21,0 | 19,0 | 15,5 | 110 |
| 185 | 150 | DZROp 185 / 150 | DZROps 185 / 150 | 1 | 25,5 | 23,5 | 19,0 | 17,0 | 110 |
| 240 | 70 | DZROp 240 / 70 | DZROps 240 / 70 | 1 | 29,0 | 16,5 | 21,5 | 11,5 | 125 |
| 240 | 95 | DZROp 240 / 95 | DZROps 240 / 95 | 1 | 29,0 | 19,0 | 21,5 | 13,5 | 125 |
| 240 | 120 | DZROp 240 / 120 | DZROps 240 / 120 | 1 | 29,0 | 21,0 | 21,5 | 15,5 | 125 |
| 240 | 150 | DZROp 240 / 150 | DZROps 240 / 150 | 1 | 29,0 | 23,5 | 21,5 | 17,0 | 125 |
| 240 | 185 | DZROp 240 / 185 | DZROps 240 / 185 | 1 | 29,0 | 25,5 | 21,5 | 19,0 | 125 |



ZCS - Tinned ferrules with the partition

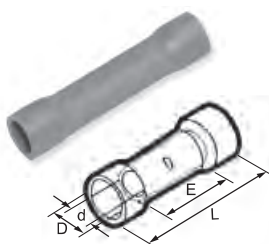
| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | |
|---------------------------------------|--------------|---------------|-----------------|-----|----|
| | | | D | d | L |
| 2,5 ÷ 4 | ZCS 4 | 100 | 4,7 | 3,0 | 20 |



ZG - Ferrules for mining cables, without galvanic coating

ZGS - Tinned ferrules for mining cables

Ferrules on all length have thread which increase the quality and durability of the connection. Made in accordance with PN-92/E-90146 norm.



ZKI - Insulated butt connectors acc. to DIN standard

ZKIT - Connectors with shrinkable insulation with adhesive acc. to DIN standard

| Core cross section [mm ²] | Product name | Packing [pcs] | Dimensions [mm] | | | | Insulation colour |
|---------------------------------------|--------------|---------------|-----------------|-----|------|----|-------------------|
| | | | D | d | L | E | |
| 0,5 ÷ 1,5 | ZKI 1,5 | 100 | 4,0 | 1,9 | 23,7 | 15 | red |
| 1,5 ÷ 2,5 | ZKI 2,5 | 100 | 4,5 | 2,4 | 23,7 | 15 | blue |
| 4 ÷ 6 | ZKI 6 | 100 | 6,8 | 4,0 | 25,7 | 15 | yellow |
| 0,5 ÷ 1,5 | ZKIT 1,5 | 100 | 4,5 | 1,7 | 35,0 | 15 | red |
| 1,5 ÷ 2,5 | ZKIT 2,5 | 100 | 5,5 | 2,3 | 37,0 | 15 | blue |
| 4 ÷ 6 | ZKIT 6 | 100 | 6,5 | 3,4 | 41,0 | 15 | yellow |

Aluminum-copper cable terminals

ATTENTION!

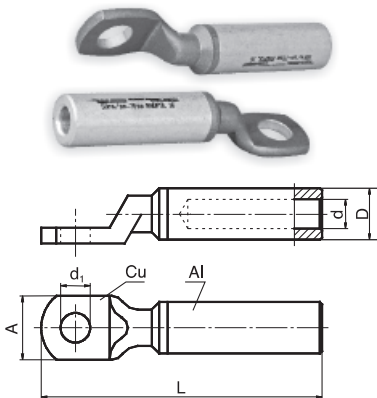
Terminals with other bolt holes dimensions are also available in our standard offer.



Non-standard terminals are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals
- page no. 33



Application

Aluminum-copper cable terminals are used for termination of aluminum conductors (round and sector-shaped conductors) for the purpose to connect them to copper bars. They increase the safety and life of connection thanks to the elimination of disadvantageous contact of aluminum with copper, using the friction method in the both metals connection. They guarantee the productive reliability by long-lasting and high current loads.

Assembling

In order to make the durable assembling of terminal, it should be pressed by using the suitable press (in case of sector cores - the core should be first formed round).

Technical data

Accordanace with DIN 46 329 standard concerns only the tubular parts of the terminals. Cable terminals are made of aluminum bars in the recrystallizing condition of E-Al grade PN-EN 573-3 and of copper bars in grade Cu-ETP acc. with PN-EN 13601.

Special contact paste applied inside terminals acc. to DIN standards improve the quality of the connection. For the assurance of suitable plasticity of contact paste, the terminals are packed separately one piece in one folie sack.

DKAMp - Terminals with leakproof partition, acc. to DIN standard

| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|-----|----------------|---------------|-----------------|------|----------------|-----|----|
| rm, sm | se | | | D | d | d ₁ | L | A |
| 16 | 25 | DKAMp 16 / 6 | 1 | 12,0 | 5,6 | 6,5 | 78 | 18 |
| 25 | 35 | DKAMp 25 / 8 | 1 | 12,0 | 6,8 | 8,5 | 87 | 18 |
| 35 | 50 | DKAMp 35 / 10 | 1 | 14,0 | 8,0 | 10,5 | 99 | 20 |
| 50 | 70 | DKAMp 50 / 10 | 1 | 16,0 | 9,8 | 10,5 | 104 | 24 |
| 70 | 95 | DKAMp 70 / 10 | 1 | 18,5 | 11,2 | 10,5 | 112 | 26 |
| 95 | 120 | DKAMp 95 / 10 | 1 | 22,0 | 13,2 | 10,5 | 120 | 30 |
| 120 | 150 | DKAMp 120 / 12 | 1 | 23,0 | 14,7 | 13,0 | 128 | 32 |
| 150 | 185 | DKAMp 150 / 16 | 1 | 25,0 | 16,3 | 17,0 | 141 | 33 |
| 185 | 240 | DKAMp 185 / 16 | 1 | 28,5 | 18,3 | 17,0 | 149 | 38 |
| 240 | 350 | DKAMp 240 / 16 | 1 | 32,0 | 21,0 | 17,0 | 155 | 40 |

rm - round bunched core, sm - segmental bunched core, se - segmental solid core.

Aluminum-copper cable ferrules



Non-standard ferrules are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals
- page no. 33

Application

Aluminum-copper cable ferrules are used for connection of aluminum and copper conductor. The aluminum and copper connection is obtained using of friction method, and it causes the elimination of disadvantageous effects on the aluminum with copper contact.

Assembling

In order to make the durable assembling of ferrule, it should be pressed by using the suitable press (in case of sector cores - the core should be first formed round).

Technical data

Accordanace with DIN 46 267 standard concerns only the tubular parts of the ferrules.

Cable ferrules are made of aluminum bars in the recrystallizing condition of E-Al grade PN-EN 573-3 and of copper bars in grade Cu-ETP acc. with PN-EN 13601.

Special contact paste applied inside ferrules acc. to DIN standards improve the quality of the connection. For the assurance of suitable plasticity of contact paste, the ferrules are packed separately one piece in one folie sack.

DZAM - Ferrules with leakproof partition, acc. to DIN standard

| Core cross section [mm ²] | | | Product name | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|----|--------|--------------|---------------|-----------------|-----|----------------|----------------|------|
| Al | Cu | | | | D | d | D ₁ | d ₁ | L |
| rm, sm | se | rm, se | | | | | | | |
| 16 | 25 | 10 | DZAM 16 / 10 | 1 | 12,0 | 5,6 | 6,0 | 4,5 | 57,0 |
| 16 | 25 | 16 | DZAM 16 / 16 | 1 | 12,0 | 5,6 | 8,5 | 5,5 | 61,0 |
| 25 | 35 | 10 | DZAM 25 / 10 | 1 | 12,0 | 6,8 | 6,0 | 4,5 | 55,0 |
| 25 | 35 | 16 | DZAM 25 / 16 | 1 | 12,0 | 6,8 | 8,5 | 5,5 | 61,0 |
| 25 | 35 | 25 | DZAM 25 / 25 | 1 | 12,0 | 6,8 | 10,0 | 7,0 | 61,0 |

rm - round bunched core, sm - segmental bunched core, se - segmental solid core.

DZAM - Ferrules with leakproof partition, acc. to DIN standard - next

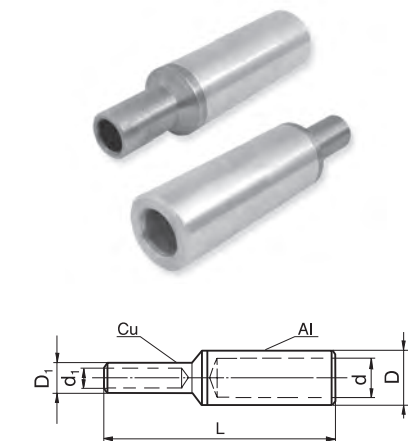
| Core cross section [mm ²] | | | Product name | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|-----|--------|----------------|---------------|-----------------|------|----------------|----------------|-------|
| Al | Cu | Al | | | D | d | D ₁ | d ₁ | L |
| rm, sm | se | rm, se | | | | | | | |
| 35 | 50 | 16 | DZAM 35 / 16 | 1 | 14,0 | 8,0 | 8,5 | 5,5 | 71,0 |
| 35 | 50 | 25 | DZAM 35 / 25 | 1 | 14,0 | 8,0 | 10,0 | 7,0 | 71,0 |
| 35 | 50 | 35 | DZAM 35 / 35 | 1 | 14,0 | 8,0 | 12,5 | 8,2 | 71,0 |
| 50 | 70 | 16 | DZAM 50 / 16 | 1 | 16,0 | 9,8 | 8,5 | 5,5 | 71,5 |
| 50 | 70 | 25 | DZAM 50 / 25 | 1 | 16,0 | 9,8 | 10,0 | 7,0 | 71,5 |
| 50 | 70 | 35 | DZAM 50 / 35 | 1 | 16,0 | 9,8 | 12,5 | 8,2 | 71,5 |
| 50 | 70 | 50 | DZAM 50 / 50 | 1 | 16,0 | 9,8 | 14,5 | 10,0 | 77,5 |
| 70 | 95 | 16 | DZAM 70 / 16 | 1 | 18,5 | 11,2 | 8,5 | 5,5 | 79,0 |
| 70 | 95 | 25 | DZAM 70 / 25 | 1 | 18,5 | 11,2 | 10,0 | 7,0 | 79,0 |
| 70 | 95 | 35 | DZAM 70 / 35 | 1 | 18,5 | 11,2 | 12,5 | 8,2 | 79,0 |
| 70 | 95 | 50 | DZAM 70 / 50 | 1 | 18,5 | 11,2 | 14,5 | 10,0 | 85,0 |
| 70 | 95 | 70 | DZAM 70 / 70 | 1 | 18,5 | 11,2 | 16,5 | 11,5 | 86,0 |
| 95 | 120 | 16 | DZAM 95 / 16 | 1 | 22,0 | 13,2 | 8,5 | 5,5 | 79,0 |
| 95 | 120 | 25 | DZAM 95 / 25 | 1 | 22,0 | 13,2 | 10,0 | 7,0 | 79,0 |
| 95 | 120 | 35 | DZAM 95 / 35 | 1 | 22,0 | 13,2 | 12,5 | 8,2 | 79,0 |
| 95 | 120 | 50 | DZAM 95 / 50 | 1 | 22,0 | 13,2 | 14,5 | 10,0 | 85,0 |
| 95 | 120 | 70 | DZAM 95 / 70 | 1 | 22,0 | 13,2 | 16,5 | 11,5 | 87,0 |
| 95 | 120 | 95 | DZAM 95 / 95 | 1 | 22,0 | 13,2 | 19,0 | 13,5 | 95,0 |
| 120 | 150 | 16 | DZAM 120 / 16 | 1 | 23,0 | 14,7 | 8,5 | 5,5 | 81,0 |
| 120 | 150 | 25 | DZAM 120 / 25 | 1 | 23,0 | 14,7 | 10,0 | 7,0 | 81,0 |
| 120 | 150 | 35 | DZAM 120 / 35 | 1 | 23,0 | 14,7 | 12,5 | 8,2 | 81,0 |
| 120 | 150 | 50 | DZAM 120 / 50 | 1 | 23,0 | 14,7 | 14,5 | 10,0 | 87,0 |
| 120 | 150 | 70 | DZAM 120 / 70 | 1 | 23,0 | 14,7 | 16,5 | 11,5 | 89,0 |
| 120 | 150 | 95 | DZAM 120 / 95 | 1 | 23,0 | 14,7 | 19,0 | 13,5 | 97,0 |
| 120 | 150 | 120 | DZAM 120 / 120 | 1 | 23,0 | 14,7 | 21,0 | 15,5 | 97,0 |
| 150 | 185 | 16 | DZAM 150 / 16 | 1 | 25,0 | 16,3 | 8,5 | 5,5 | 91,5 |
| 150 | 185 | 25 | DZAM 150 / 25 | 1 | 25,0 | 16,3 | 10,0 | 7,0 | 91,5 |
| 150 | 185 | 35 | DZAM 150 / 35 | 1 | 25,0 | 16,3 | 12,5 | 8,2 | 91,5 |
| 150 | 185 | 50 | DZAM 150 / 50 | 1 | 25,0 | 16,3 | 14,5 | 10,0 | 98,5 |
| 150 | 185 | 70 | DZAM 150 / 70 | 1 | 25,0 | 16,3 | 16,5 | 11,5 | 99,5 |
| 150 | 185 | 95 | DZAM 150 / 95 | 1 | 25,0 | 16,3 | 19,0 | 13,5 | 107,5 |
| 150 | 185 | 120 | DZAM 150 / 120 | 1 | 25,0 | 16,3 | 21,0 | 15,5 | 107,5 |
| 150 | 185 | 150 | DZAM 150 / 150 | 1 | 25,0 | 16,3 | 23,5 | 17,0 | 107,5 |
| 185 | 240 | 50 | DZAM 185 / 50 | 1 | 28,5 | 18,3 | 14,5 | 10,0 | 99,0 |
| 185 | 240 | 70 | DZAM 185 / 70 | 1 | 28,5 | 18,3 | 16,5 | 11,5 | 100,0 |
| 185 | 240 | 95 | DZAM 185 / 95 | 1 | 28,5 | 18,3 | 19,0 | 13,5 | 108,0 |
| 185 | 240 | 120 | DZAM 185 / 120 | 1 | 28,5 | 18,3 | 21,0 | 15,5 | 108,0 |
| 185 | 240 | 150 | DZAM 185 / 150 | 1 | 28,5 | 18,3 | 23,5 | 17,0 | 113,0 |
| 185 | 240 | 185 | DZAM 185 / 185 | 1 | 28,5 | 18,3 | 25,5 | 19,0 | 116,0 |
| 240 | 300 | 50 | DZAM 240 / 50 | 1 | 32,0 | 21,0 | 14,5 | 10,0 | 110,0 |
| 240 | 300 | 70 | DZAM 240 / 70 | 1 | 32,0 | 21,0 | 16,5 | 11,5 | 111,0 |
| 240 | 300 | 95 | DZAM 240 / 95 | 1 | 32,0 | 21,0 | 19,0 | 13,5 | 119,0 |
| 240 | 300 | 120 | DZAM 240 / 120 | 1 | 32,0 | 21,0 | 21,0 | 15,5 | 119,0 |
| 240 | 300 | 150 | DZAM 240 / 150 | 1 | 32,0 | 21,0 | 23,5 | 17,0 | 124,0 |
| 240 | 300 | 185 | DZAM 240 / 185 | 1 | 32,0 | 21,0 | 25,5 | 19,0 | 127,0 |
| 240 | 300 | 240 | DZAM 240 / 240 | 1 | 32,0 | 21,0 | 29,0 | 21,5 | 128,0 |

rm - round bunched core, sm - segmental bunched core, se - segmental solid core.

DZROAM - Ferrules for MV cables of 10 ÷ 30 kV, acc. to DIN standard

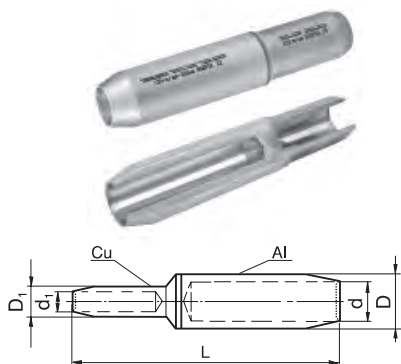
| Core cross section [mm ²] | | | Product name | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|-----|--------|----------------|---------------|-----------------|------|----------------|----------------|-----|
| Al | Cu | Al | | | D | d | D ₁ | d ₁ | L |
| rm, sm | se | rm, se | | | | | | | |
| 70 | 95 | 35 | DZROAM 70 / 35 | 1 | 18,5 | 11,2 | 12,5 | 8,5 | 86 |
| 70 | 95 | 50 | DZROAM 70 / 50 | 1 | 18,5 | 11,2 | 14,5 | 10,0 | 94 |
| 70 | 95 | 70 | DZROAM 70 / 70 | 1 | 18,5 | 11,2 | 16,5 | 11,5 | 94 |
| 95 | 120 | 35 | DZROAM 95 / 35 | 1 | 22,0 | 13,2 | 12,5 | 8,5 | 91 |
| 95 | 120 | 50 | DZROAM 95 / 50 | 1 | 22,0 | 13,2 | 14,5 | 10,0 | 98 |
| 95 | 120 | 70 | DZROAM 95 / 70 | 1 | 22,0 | 13,2 | 16,5 | 11,5 | 98 |
| 95 | 120 | 95 | DZROAM 95 / 95 | 1 | 22,0 | 13,2 | 19,0 | 13,5 | 112 |

rm - round bunched core, sm - segmental bunched core, se - segmental solid core.



DZROAM - Ferrules for MV cables of 10 ÷ 30 kV, acc. to DIN standard

- next



| Core cross section [mm ²] | | | Product name | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|-----------|---------------|------------------|---------------|-----------------|----------------|----------------|------|-----|
| Al | Cu | D | | | d | D ₁ | d ₁ | L | |
| rm, sm | se | rm, se | | | | | | | |
| 120 | 150 | 35 | DZROAM 120 / 35 | 1 | 23,0 | 14,7 | 12,5 | 8,5 | 95 |
| 120 | 150 | 50 | DZROAM 120 / 50 | 1 | 23,0 | 14,7 | 14,5 | 10,0 | 101 |
| 120 | 150 | 70 | DZROAM 120 / 70 | 1 | 23,0 | 14,7 | 16,5 | 11,5 | 101 |
| 120 | 150 | 95 | DZROAM 120 / 95 | 1 | 23,0 | 14,7 | 19,0 | 13,5 | 114 |
| 120 | 150 | 120 | DZROAM 120 / 120 | 1 | 23,0 | 14,7 | 21,0 | 15,5 | 114 |
| 150 | 185 | 70 | DZROAM 150 / 70 | 1 | 25,0 | 16,3 | 16,5 | 11,5 | 103 |
| 150 | 185 | 95 | DZROAM 150 / 95 | 1 | 25,0 | 16,3 | 19,0 | 13,5 | 116 |
| 150 | 185 | 120 | DZROAM 150 / 120 | 1 | 25,0 | 16,3 | 21,0 | 15,5 | 116 |
| 150 | 185 | 150 | DZROAM 150 / 150 | 1 | 25,0 | 16,3 | 23,5 | 17,0 | 125 |
| 185 | 240 | 70 | DZROAM 185 / 70 | 1 | 28,5 | 18,3 | 16,5 | 11,5 | 117 |
| 185 | 240 | 95 | DZROAM 185 / 95 | 1 | 28,5 | 18,3 | 19,0 | 13,5 | 128 |
| 185 | 240 | 120 | DZROAM 185 / 120 | 1 | 28,5 | 18,3 | 21,0 | 15,5 | 128 |
| 185 | 240 | 150 | DZROAM 185 / 150 | 1 | 28,5 | 18,3 | 23,5 | 17,0 | 137 |
| 185 | 240 | 185 | DZROAM 185 / 185 | 1 | 28,5 | 18,3 | 25,5 | 19,0 | 139 |
| 240 | 300 | 120 | DZROAM 240 / 120 | 1 | 32,0 | 21,0 | 21,0 | 15,5 | 138 |
| 240 | 300 | 150 | DZROAM 240 / 150 | 1 | 32,0 | 21,0 | 23,5 | 17,0 | 138 |
| 240 | 300 | 185 | DZROAM 240 / 185 | 1 | 32,0 | 21,0 | 25,5 | 19,0 | 143 |
| 240 | 300 | 240 | DZROAM 240 / 240 | 1 | 32,0 | 21,0 | 29,0 | 21,5 | 143 |

rm - round bunched core, sm - segmental bunched core, se - segmental solid core.

Aluminum-copper pins



Non-standard pins are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.



Presses for the terminals
- page no. 33

Application

Aluminum-copper pins are used for termination of aluminum cores (round and sector shaped conductors) connected to the receiving devices with the use of the current clips. They increase the safety, quality and life of the connection thanks to elimination of the chemical reaction occurring in contact of two different metals.

Assembling

In order to make the durable assembling of the cable pin, it should be pressed by using the suitable press (in case of sector cores - the core should be first formed round).

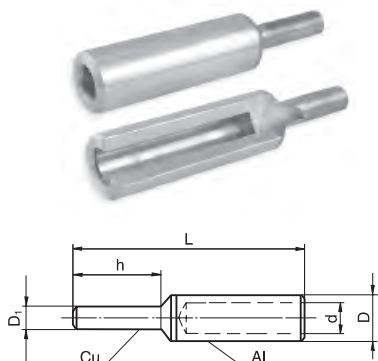
Technical data

Accordanace with DIN 46 329 standard concerns only the tubular parts of the pins. Cable pins are made of aluminum bars in the recrystallizing condition of E-Al grade PN-EN 573-3 and of copper bars in grade Cu-ETP acc. with PN-EN 13601.

Special contact paste applied inside pins acc. improve the quality of the connection.

For the assurance of suitable plasticity of contact paste, the pins are packed separately one piece in one folie sack.

DBAM - Aluminum-copper pins with leakproof partition, acc. to DIN standard



| Core cross section [mm ²] | | Product name | Packing [pcs] | Dimensions [mm] | | | | |
|---------------------------------------|-----|--------------|---------------|-----------------|----------------|------|----|-----|
| rm, sm | se | | | D | D ₁ | d | h | L |
| 16 | 25 | DBAM 16 | 1 | 12,0 | 5 | 5,6 | 18 | 56 |
| 25 | 35 | DBAM 25 | 1 | 12,0 | 6 | 6,8 | 20 | 58 |
| 35 | 50 | DBAM 35 | 1 | 14,0 | 7 | 8,0 | 22 | 71 |
| 50 | 70 | DBAM 50 | 1 | 16,0 | 8 | 9,8 | 25 | 74 |
| 70 | 95 | DBAM 70 | 1 | 18,5 | 10 | 11,2 | 30 | 87 |
| 95 | 120 | DBAM 95 | 1 | 22,0 | 12 | 13,2 | 33 | 91 |
| 120 | 150 | DBAM 120 | 1 | 23,0 | 12 | 14,7 | 38 | 97 |
| 150 | 185 | DBAM 150 | 1 | 25,0 | 12 | 16,3 | 38 | 108 |
| 185 | 240 | DBAM 185 | 1 | 28,5 | 14 | 18,3 | 44 | 116 |
| 240 | 300 | DBAM 240 | 1 | 32,0 | 16 | 21,0 | 44 | 128 |

Aluminum-copper washers



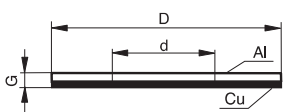
Non-standard washers are manufactured on special require. In that case please contact our Technical Department. We guarantee the short realization term.

Application

Al-Cu washers eliminate a minicells creating effect on the contact of two different metals. The washers applied to electrical circuits cause reduction of energy loss. They increase the safety and the life of connection. Except the application in power engineering, the washers can be used in electrical installations for the connection of parts made of aluminum and copper.

Technical data

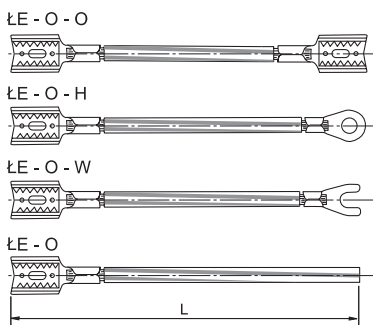
Washers are made of AL/CU sheet.



PC - Aluminum-copper washers

| Product name | Packing [pcs] | Dimensions [mm] | | |
|--------------|---------------|-----------------|------|---|
| | | D | d | G |
| PC 3,5 | 100 | 8,5 | 3,5 | 1 |
| PC 5,5 | 100 | 11 | 5,5 | 1 |
| PC 6,5 | 100 | 13 | 6,5 | 1 |
| PC 8,5 | 100 | 19 | 8,5 | 1 |
| PC 11,0 | 100 | 24 | 11,0 | 1 |
| PC 13,0 | 100 | 30 | 13,0 | 1 |
| PC 17,0 | 100 | 38 | 17,0 | 1 |
| PC 21,0 | 100 | 38 | 21,0 | 1 |

Shield connectors



Application

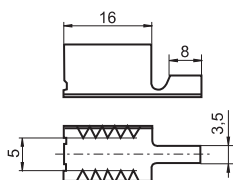
The shield connectors find an application by the manufacturing of straight and tee joints for telephone network cables. They enable to connect simply and firmly the shields of cables.

Technical data

Conductor: LgYžc of 2,5mm² cross-section (yellow-black). Depends on shield connectors type, the wires of conductors are tinned (ŁEs) or without galvanic coating (ŁE). The shield connection leads are tinned, in different shapes (KŁE, Kos-6, KWs 6/5). The length (L) shall be defined in the orders in millimeters.

ŁE - With non-tinned conductor

| Product name | Packing [pcs] | Terminal type | |
|--------------|---------------|---------------|---------|
| | | initial | final |
| ŁE - O - O | 50 | KŁE | KŁE |
| ŁE - O - H | 50 | KŁE | KOs 6/5 |
| ŁE - O - W | 50 | KŁE | KWs 6/5 |
| ŁE - O | 50 | KŁE | - |



KŁE - Shield connection leads

Assembling

Press the terminals on copper cord, and next lock the terminals on the conductor jacket by flat nose pliers using.

Technical data

The terminals are made of copper tape of M70r (PN 92/H-87025)CuZn30 (DIN 17660) or bronze tape of B6z6 (PN 92/H-87050) CuSn6 (DIN 17662). Tinned.



| Product name | Packing [pcs] |
|--------------|---------------|
| KŁE | 100 |

12-way thread terminal blocks for wires

Application

12-way thread terminal blocks for wires are used for wires connection in electro-installation boxes, lighting technics, switchgear boxes and other electro-installation works. The guarantee easy separation of current ways. Blocks can be easily divided with the use of installation knife. Special holes enable fastening the blocks to the foundation.

Technical data

The body of blocks is made of polyethylene PE.
Grips are made of brass with steel tinned screws.
Working temperature: from - 40°C to + 80°C.



| Core cross-section [mm ²] | Product name | Packing [pcs] |
|---------------------------------------|--------------|---------------|
| 0,5 ÷ 2,5 | Z12T-2,5 | 10 |
| 2,5 ÷ 4 | Z12T-4 | 10 |
| 4 ÷ 6 | Z12T-6 | 10 |
| 10 | Z12T-10 | 10 |
| 16 | Z12T-16 | 10 |

Wiring bridges with terminals

KP - Single bridges



| Cable cross-section [mm ²] | Product name | | Packing [pcs] | Length [mm] | |
|--|-------------------------------|-------------|---------------|--------------|--------|
| | Color of conductor insulation | | | introduction | bridge |
| | black | blue | | | |
| 4 | KP 4 | KP 4 N | 10 | 1 x 110 | - |
| 6 | KP 6 | KP 6 N | 10 | 1 x 110 | - |
| 10 | KP 10 | KP 10 N | 10 | 1 x 110 | - |
| 4 | KPL 4 | KPL 4 N | 10 | 1 x 260 | - |
| 6 | KPL 6 | KPL 6 N | 10 | 1 x 260 | - |
| 10 | KPL 10 | KPL 10 N | 10 | 1 x 260 | - |

KP 3 - Double bridges with the lead



| Cable cross-section [mm ²] | Product name | | Packing [pcs] | Length [mm] | |
|--|-------------------------------|---------------|---------------|--------------|---------|
| | Color of conductor insulation | | | introduction | bridge |
| | black | blue | | | |
| 4 | KP 3 L / 4 | KP 3 L / 4 N | 10 | 1 x 260 | 2 x 110 |
| 6 | KP 3 L / 6 | KP 3 L / 6 N | 10 | 1 x 260 | 2 x 110 |
| 10 | KP 3 L / 10 | KP 3 L / 10 N | 10 | 1 x 260 | 2 x 110 |

KP 4 - Triple bridges with the lead



| Cable cross-section [mm ²] | Product name | | Packing [pcs] | Length [mm] | |
|--|-------------------------------|---------------|---------------|--------------|---------|
| | Color of conductor insulation | | | introduction | bridge |
| | black | blue | | | |
| 4 | KP 4 L / 4 | KP 4 L / 4 N | 10 | 1 x 260 | 3 x 110 |
| 6 | KP 4 L / 6 | KP 4 L / 6 N | 10 | 1 x 260 | 3 x 110 |
| 10 | KP 4 L / 10 | KP 4 L / 10 N | 10 | 1 x 260 | 3 x 110 |

□ □ □ □ ■ FLOP cable grips

Application

The fasteners are supposed to fast fastening of conductors. The hardened nail makes easy the assembling to different foundations, and the using of KR1 stretched pins causes better security of the fastening. Special shape of fasteners for round and flat conductors, increases the security of the assembling. Comfortable application for aesthetic and cheap installation.

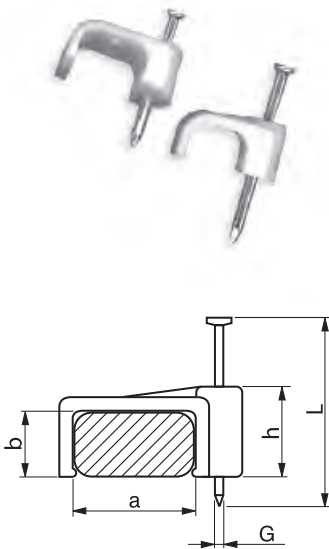
Assembling

Flop fasteners can be fastened driving nails directly to the foundation or to the put in KR1 stretched pin.

Technical data

Still hardened tinned nail. The fasteners and stretched pins are made of polypropylene (BN-79/6364-03). Operating temperature from -15°C up to +70°C.

Fasteners are packed in foil or blisters. For shops and warehouses we recommend comfortable kit - stand with fasteners' set of most popular dimensions packed in blisters.



FP - For flat conductors fastening

Packed in sack:

Packed in blisters:

| Product name | Packing [1 set = ... pcs] | Cumulative packing [sets] | Product name | Packing [1 set = ... pcs] | Cumulative packing [sets] | Dimensions [mm] | | | | |
|--------------|---------------------------|---------------------------|--------------|---------------------------|---------------------------|-----------------|-----|-----|----|-----|
| | | | | | | a | b | h | L | G |
| FP 5 / 3 | 100 | 40 | BFP 5 / 3 | 50 | 10 | 5 | 3,5 | 5,5 | 20 | 1,8 |
| FP 6 / 4 | 100 | 30 | BFP 6 / 4 | 60 | 10 | 6 | 4,0 | 6,0 | 22 | 1,8 |
| FP 8 / 5 | 100 | 20 | BFP 8 / 5 | 40 | 10 | 8 | 5,0 | 7,0 | 27 | 2,0 |
| FP 10 / 6 | 100 | 20 | BFP 10 / 6 | 80 | 10 | 10 | 5,5 | 8,0 | 26 | 2,3 |
| FP 12 / 6 | 100 | 15 | BFP 12 / 6 | 60 | 10 | 12 | 6,0 | 9,5 | 26 | 2,0 |

Product name

Conductor type

| | |
|-----------|--|
| FP 5 / 3 | SMYp 2x0,75; SMYp 2x0,5; TKSy 1x2x0,5 |
| FP 6 / 4 | OMYp 2x0,75; OMYp 2x1 |
| FP 8 / 5 | OMYp 300/300V 2x1,5; YDYp 300/500V 2x1 i 2x1,5 |
| FP 10 / 6 | YDYp 450/750V 2x1 i 2x1,5; YDYp 300/500V 3x1 i 3x1,5 |
| FP 12 / 6 | YDYp 450/750V 3x1 i 3x1,5; YDYp 300/500V 3x2,5 |

FO - For round conductors fastening

Packed in sack:

Packed in blisters:

| Product name | Packing [1 set = ... pcs] | Cumulative packing [sets] | Product name | Packing [1 set = ... pcs] | Cumulative packing [sets] | Dimensions [mm] | | | |
|--------------|---------------------------|---------------------------|--------------|---------------------------|---------------------------|-----------------|------|----|-----|
| | | | | | | d | h | L | G |
| FO 3 | 100 | 50 | BFO 3 | 60 | 10 | 3 | 5,0 | 20 | 2,0 |
| FO 4 | 100 | 40 | BFO 4 | 60 | 10 | 4 | 5,0 | 22 | 1,8 |
| FO 5 | 100 | 40 | BFO 5 | 50 | 10 | 5 | 5,5 | 22 | 1,8 |
| FO 6 | 100 | 30 | BFO 6 | 70 | 10 | 6 | 7,5 | 25 | 1,8 |
| FO 7 | 100 | 25 | BFO 7 | 70 | 10 | 7 | 7,5 | 25 | 1,8 |
| FO 8 | 100 | 20 | BFO 8 | 60 | 10 | 8 | 9,0 | 27 | 2,0 |
| FO 9 | 100 | 15 | BFO 9 | 40 | 10 | 9 | 10,0 | 27 | 2,0 |
| FO 10 | 100 | 10 | BFO 10 | 50 | 10 | 10 | 11,0 | 27 | 2,0 |
| FO 12 | 100 | 12 | BFO 12 | 50 | 10 | 12 | 13,0 | 28 | 2,2 |
| FO 14 | 100 | 8 | - | - | - | 14 | 16,5 | 32 | 2,3 |
| FO 16 | 100 | 6 | - | - | - | 16 | 16,5 | 38 | 2,4 |

Product name

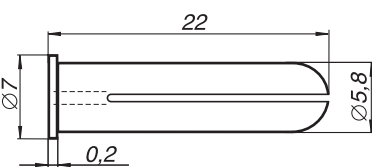
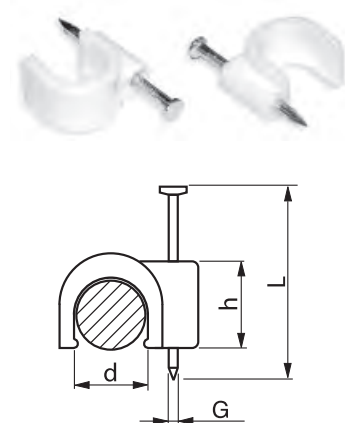
Conductor type

| | |
|------|----------------------------------|
| FO 3 | LgY 1x2,5; YTDY 4x0,5 |
| FO 4 | LgY 1x4 |
| FO 5 | LgY 1x6 |
| FO 6 | WDX 75-1; YTDY 16x0,5; LgY 1x10; |
| | OMY 2x1; 2x1,5; 3x0,5 |
| FO 7 | LgY 1x16, OMY 2x1,5 |
| FO 8 | YDY 2x1 |

Product name

Conductor type

| | |
|-------|--------------------------------|
| FO 9 | YDY 2x1,5; YDY 3x1 |
| FO 10 | YDY 3x1,5; YDY 4x1; YFY 4x1,5; |
| | OWY 4x1,5; LgY 1x35 |
| FO 12 | LgY 1x50; YDY 2x4; YDY 3x4 |
| FO 14 | YDY 3x6; YDY 4x4; OWY 5x4; |
| | LgY 1x70; |
| FO 16 | OWY 5x4; LgY 1x95; YDY 4x6 |



KR1 - Pull apart pins

| Product name | Packing [1 set = ... pcs] | Cumulative packing [sets] |
|--------------|---------------------------|---------------------------|
| KR1 | 100 | 40 |





BFZ - Sets of cable grips

| Product name | Blister type | Blisters quantity [pcs.] | Quantity of grips [pcs.] | |
|--------------|--------------|--------------------------|---------------------------|----------|
| | | | in 1 blister | on stand |
| BF | FP 5 / 3 | 6 | 50 | 300 |
| | FP 6 / 4 | 5 | 60 | 300 |
| | FP 8 / 5 | 5 | 40 | 200 |
| | FP 10 / 6 | 3 | 80 | 240 |
| | FP 12 / 6 | 3 | 60 | 180 |
| | FO 3 | 6 | 60 | 360 |
| | FO 6 | 5 | 70 | 350 |
| | FO 8 | 5 | 60 | 300 |
| | FO 10 | 3 | 50 | 150 |
| | Together | | | 2 380 |

Quick assembly holders

Application

Meant for easy and quick assembly of round and flat conductors and pipes in on-wall, ceiling and floor installations. They guarantee low assembly costs and professional appearance of installation.

Assembling

Conductor is being put in into holder which is next placed in the drilled-hole.



USMP - Quick assembly holders for flat conductors

| Name of set | Max. width of conductor [mm] | Used for conductors | Assembly [mm] | | Packing [pcs] | index |
|-------------|------------------------------|------------------------------------|-----------------|------------|---------------|----------|
| | | | Drill dimension | Hole depth | | |
| USMP 11 | 11 | YDYp 2x1; 2x1,5; 2x2,5; 3x1; 3x1,5 | 6 ÷ 6,5 | 35 | 100 | 0-053-01 |
| USMP 13 | 13 | YDYp 3x1,5; 3x2,5; UTP-dual | 6 ÷ 6,5 | 35 | 100 | 0-053-02 |
| USMP 16 | 16 | YDYp 4x1,5; 4x2,5 | 6 ÷ 6,5 | 35 | 100 | 0-053-03 |
| USMP 2x13 | 13 | YDYp 3x1,5; 3x2,5; 4x1,5; UTP-dual | 6 ÷ 6,5 | 40 | 50 | 0-053-07 |

USMO - Quick assembly holders for round conductors

| Name of set | Conductor diameter from [mm] to [mm] | | Used for conductors | Assembly [mm] | | Packing [pcs] | index |
|-------------|--------------------------------------|------------|---|---------------|----|---------------|----------|
| | Drill dimension | Hole depth | | | | | |
| USMO 6 | 5 | 7 | YTKSY 1x2x0,5; 1x4x0,5; 5x2x0,5; DY6; UYP | 6 ÷ 6,5 | 35 | 100 | 0-053-04 |
| USMO 8 | 7 | 9 | YDY 2x1; 2x1,5; 3x1; antenna and cable television | 6 ÷ 6,5 | 35 | 100 | 0-053-05 |
| USMO 10 | 9 | 11 | YDY 2x2,5; 2x1,5; 3x1,5; 3x2,5; 4x1; 4x1,5 | 6 ÷ 6,5 | 35 | 100 | 0-053-06 |

USMH - Hook quick assembly holders for pipes

| Name of set | Conductor diameter from [mm] to [mm] | | Used for conductors | Assembly [mm] | | Packing [pcs] | index |
|--------------|--------------------------------------|------------|--|---------------|----|---------------|----------|
| | Drill dimension | Hole depth | | | | | |
| USMH 18-22 | 18 | 22 | Installation pipes: smooth and corrugated | 7 ÷ 8 | 50 | 100 | 0-053-08 |
| USMH 2x18-22 | 18 | 22 | conductors YDY 5x10; 7x6; 7x10; 10x2,5; 10x4 | 7 ÷ 8 | 50 | 100 | 0-053-09 |

Collective cable holders

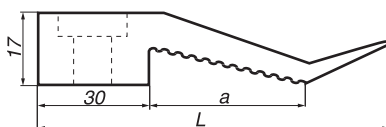
Application

They are meant for collective fastening of power conductors in on-wall, ceiling and floor installations. Their flexible construction and pull off holder enable easy and reliable holding of conductors. Due to flat shape they can be applied in under-plaster work installations.

Low installation costs are guaranteed thanks to shortening the assembly time

Material

Polypropylene.



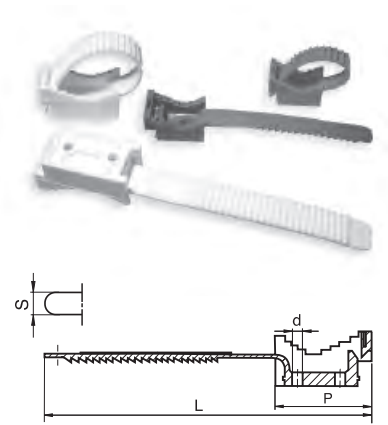
UKZ - Collective cable holders

| Name of set | Dimensions [mm] | | Used for conductors | Assembly | Packing [pcs] | index |
|-------------|-----------------|-----|--|--|---------------|----------|
| | a | L | | | | |
| UKZ 52 | 52 | 105 | max. 6 conductors: YDY 2x2,5; 3x1,5; 3x2,5; 4x1; 4x1,5 | Max. diameters: screw 6 mm, screw head 11 mm | 50 | 0-053-12 |
| UKZ 77 | 77 | 130 | max. 6 conductors: YDY 2x2,5; 3x1,5; 3x2,5; 4x1; 4x1,5 | | 50 | 0-053-11 |
| UKZ 2x77 | 2x77 | 230 | max. 2x9 conductors: YDY 2x2,5; 3x1,5; 3x2,5; 4x1; 4x1,5 | | 50 | 0-053-10 |



Cable hitching grips
All-purpose cable grips for cables and pipes
Cable ties

▢ ▢ ▢ ▢ ▢ ▢ ▢ **▢** Cable hitching grips



Application

The hitching grips are applied for the fastening of power engineering conductors. They are very flexible. UP type ties have zip for multiple using.

Assembling

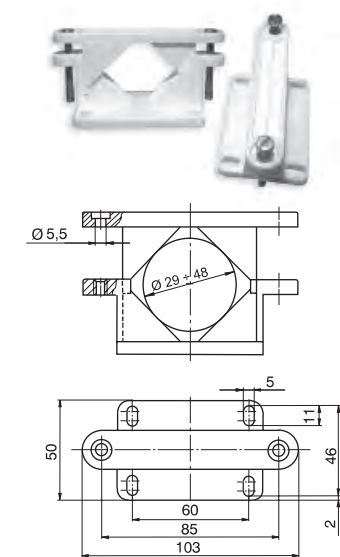
Screw down the grips to the foundation with the aid of wood screws (the grips are sold without the screws). Depends on the dimensions of grip screw down using 1 or 2 screws.

Technical data

Material: polietylen (PN-6/C-89280). Operating temperature: from -15°C to +70°C.
Standard version and UV resistant version (name: UP ... UV).
Color: white and black.

| Product name | Max. diameter of bunch [mm] | Packing [1 set = ... pcs] | Cumulative packing [sets] | Dimensions [mm] | | | |
|--------------|-----------------------------|---------------------------|---------------------------|-----------------|---------|----|----|
| | | | | L | d | P | S |
| UP 22 | 18 | 100 | 20 | 93 | 4,5 | 28 | 10 |
| UP 30 | 30 | 100 | 10 | 145 | 5,4 | 37 | 13 |
| UP 50 | 45 | 10 | 30 | 220 | 2 x 6,4 | 61 | 22 |

▢ ▢ ▢ ▢ ▢ ▢ ▢ **▢** All-purpose cable grips for cables and pipes



Application

All-purpose grips are used for stationary power engineering cables and or installation pipes of 29 up to 48 mm. Special shape and the construction make the connection more durable.

Assembling

The grip's base is screwed down to the foundation with the aid of 4 pcs of wood screws (the grips are sold without the screws). Next the cable or the pipe are fastened to the foundation by means of "grip bridge" equipped in two screws.

Technical data

The grips are made of polypropylene (BN-79/6364-03).
UV resistant.
Colors: white, black.
Operating temperature from -15°C up to +70°C.

| Product name | Packing [1 set = ... pcs] | Cumulative packing [sets] |
|--------------|---------------------------|---------------------------|
| UKU-50 | 5 | 20 |

▢ ▢ ▢ ▢ ▢ ▢ ▢ **▢** Cable ties

Application

Cable ties are used for fastening in the bundle of conductors, tubing, hoses etc. Assembling is easier because of rounded safety edges and terminal.

Technical data

The ties are available in white and black colors (at the end of the ties' name it should be added "C" letter e.g. CT 100-2,5 C). The ties in black color have increased UV resistance.
Cable ties are made of polyamide 6.6.
They don't contain halides of cadmium, mercury, lead and chromium.
Inflammability class acc. to UL 94 V2. Operating temperature: from - 10°C up to +85°C.
The strength needed for the tie breaking is given in a unit of strength's kilogram (1kG=9,8N).

CT (white and black) - Cable ties

| Max. diameter of bunch [mm] | Product name (color white) | Packing [1 set = ... pcs.] | Cumulative packing [sets] | Dimensions [mm] | | Tensile strength [kG] |
|-----------------------------|----------------------------|----------------------------|---------------------------|-----------------|-----|-----------------------|
| | | | | L | a | |
| 15 | CT 80-2,4 | 100 | 700 | 80 | 2,4 | 8,0 |
| 22 | CT 100-2,5 | 100 | 500 | 100 | 2,5 | 8,1 |
| 30 | CT 120-2,5 | 100 | 450 | 120 | 2,5 | 8,1 |
| 40 | CT 160-2,5 | 100 | 450 | 160 | 2,5 | 8,1 |
| 53 | CT 200-2,5 | 100 | 320 | 200 | 2,5 | 8,1 |
| 33 | CT 140-3,6 | 100 | 300 | 140 | 3,6 | 18,2 |
| 53 | CT 200-3,6 | 100 | 220 | 200 | 3,6 | 18,2 |
| 76 | CT 300-3,6 | 100 | 170 | 300 | 3,6 | 18,2 |

Approvings and certifications



UL 1565

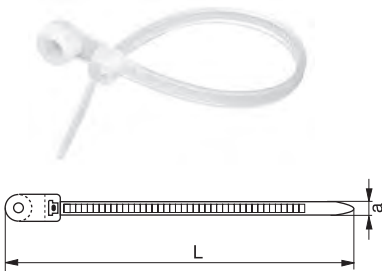
CT (white and black) - Cable ties - next

| Max. diameter of bunch [mm] | Product name (color white) | Packing [pcs] [1 set = ... pcs.] | Cumulative packing [sets] | Dimensions [mm] | | Tensile strength [kG] |
|-----------------------------|----------------------------|----------------------------------|---------------------------|-----------------|-----------|-----------------------|
| | | | | L | a | |
| 102 | CT 370-3,6 | 100 | 120 | 370 | 3,6 | 18,2 |
| 24 | CT 120-4,8 | 100 | 200 | 120 | 4,6 ÷ 4,8 | 22,2 |
| 38 | CT 160-4,8 | 100 | 180 | 160 | 4,6 ÷ 4,8 | 22,2 |
| 50 | CT 200-4,8 | 100 | 160 | 200 | 4,6 ÷ 4,8 | 22,2 |
| 60 | CT 250-4,8 | 100 | 120 | 250 | 4,6 ÷ 4,8 | 22,2 |
| 76 | CT 300-4,8 | 100 | 110 | 300 | 4,6 ÷ 4,8 | 22,2 |
| 102 | CT 370-4,8 | 100 | 90 | 370 | 4,6 ÷ 4,8 | 22,2 |
| 110 | CT 430-4,8 | 100 | 85 | 430 | 4,6 ÷ 4,8 | 22,2 |
| 50 | CT 200-7,6 | 100 | 70 | 200 | 7,5 ÷ 7,8 | 54,4 |
| 76 | CT 292-7,6 | 100 | 50 | 292 | 7,5 ÷ 7,8 | 54,4 |
| 102 | CT 368-7,6 | 100 | 40 | 368 | 7,5 ÷ 7,8 | 54,4 |
| 130 | CT 450-7,8 | 100 | 25 | 450 | 7,5 ÷ 7,8 | 55,0 |
| 158 | CT 540-7,8 | 100 | 20 | 540 | 7,5 ÷ 7,8 | 55,0 |
| 140 | CT 528-9 | 20 | 50 | 528 | 8,7 ÷ 9,0 | 79,4 |
| 190 | CT 710-9 | 20 | 75 | 710 | 8,7 ÷ 9,0 | 79,4 |
| 239 | CT 812-9 | 20 | | 812 | 8,7 ÷ 9,0 | 79,4 |
| 295 | CT 1020-9 | 20 | | 1020 | 8,7 ÷ 9,0 | 79,4 |
| 120 | CT 480-12,6 | 20 | | 480 | 12,6 | 114,0 |
| 204 | CT 730-12,6 | 20 | | 730 | 12,6 | 114,0 |
| 295 | CT 1030-12,6 | 20 | | 1030 | 12,6 | 114,0 |



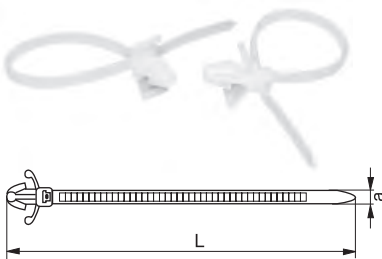
CTO - with assembly eye

| Max. diameter of bunch [mm] | Product name | Packing [pcs] | Dimensions [mm] | | Hole for screw | Tensile strength [kG] |
|-----------------------------|--------------|---------------|-----------------|-----|----------------|-----------------------|
| | | | L | a | | |
| 22 | CTO 110-2,5 | 100 | 110 | 2,5 | M3 | 8,1 |
| 32 | CTO 150-3,6 | 100 | 150 | 3,6 | M4 | 18,2 |
| 50 | CTO 200-4,8 | 100 | 200 | 4,8 | M5 | 22,2 |
| 76 | CTO 319-4,8 | 100 | 319 | 4,8 | M5 | 22,2 |
| 50 | CTO 215-7,6 | 100 | 215 | 7,6 | M5 | 54,4 |
| 76 | CTO 305-7,6 | 100 | 305 | 7,6 | M5 | 54,4 |
| 98 | CTO 375-7,6 | 100 | 375 | 7,6 | M6 | 54,4 |



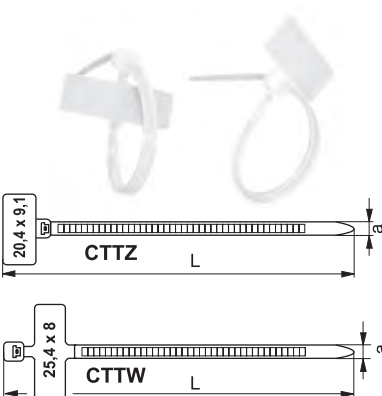
CTZ - with snap grip

| Max. diameter of bunch [mm] | Product name | Packing [pcs] | Dimensions [mm] | | Tensile strength [kG] | Hole diameter [mm] |
|-----------------------------|--------------|---------------|-----------------|-----|-----------------------|--------------------|
| | | | L | a | | |
| 22 | CTZ 110-2,5 | 100 | 110 | 2,5 | 8,1 | 4,5 |
| 25 | CTZ 130-4,8 | 100 | 130 | 4,8 | 22,2 | 6 ÷ 6,5 |
| 45 | CTZ 195-4,8 | 100 | 195 | 4,8 | 22,2 | 6 ÷ 6,5 |



CTTZ - with outer identification plate
CTTW - with inner identification plate

| Max. diameter of bunch [mm] | Product name | Packing [pcs] | Dimensions [mm] | | Tensile strength [kG] |
|-----------------------------|--------------|---------------|-----------------|-----|-----------------------|
| | | | L | a | |
| 18 | CTTZ 110-2,5 | 100 | 110 | 2,5 | 8,1 |
| 50 | CTTZ 210-2,5 | 100 | 210 | 2,5 | 8,1 |
| 18 | CTTW 100-2,5 | 100 | 100 | 2,5 | 8,1 |
| 50 | CTTW 200-2,5 | 100 | 200 | 2,5 | 8,1 |



Fastening elements for the CT cable ties

Application

They are applied for the fastening of CT cable ties to different foundations.

D 6 - Elements snap fastened in the hole of retaining construction

Technical data

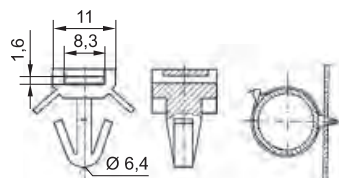
The thickness of sheet of retaining construction from 0,8 to 3 mm, inside diameter 6,4 mm.

The elements are made of polyamide.

Color: white.

Operating temperature: from -40°C to +85°C.

They are resistant for the typical solvents, greases, sea-water, mildew, and so on.



| Product name | Packing [pcs] |
|--------------|---------------|
| D 6 | 100 |

D 10 - Elements fastened in the hole drilled in the foundation

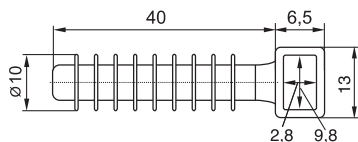
Technical data

The elements are made of polyamide 6.6.

Inflammability class acc. to UL 94 V2.

Operating temperature: from -40°C to +85°C.

Elements in black colour have higher resistance to UV radiation.



| Product name | Color | Packing [pcs] |
|--------------|-------|---------------|
| D 10-B | white | 100 |
| D 10-C | black | 100 |

E 3 - Elements screwed down to the foundation with the aid of the screw

Technical data

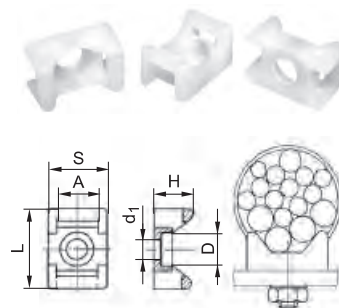
The elements are made of polyamide.

Color: white.

The screws are not sold together with E3 element.

Operating temperature: from -40°C to +85°C.

They are resistant for the typical solvents, greases, oil, sea-water, mildew, and so on.



| Product name | Packing [pcs] | Dimensions [mm] | | | | | |
|--------------|---------------|-----------------|-----|----------------|-----|------|------|
| | | A | D | d ₁ | H | S | L |
| E 3 - 4,8 | 100 | 5,0 | 7,8 | 4,5 | 7,2 | 9,5 | 14,9 |
| E 3 - 7,6 | 100 | 9,0 | 7,8 | 4,5 | 9,7 | 15,9 | 21,9 |

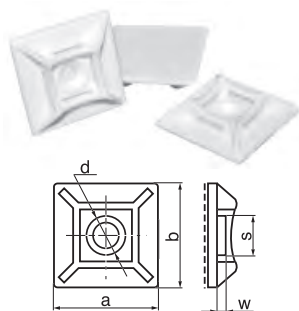
E 9 - Self-strick elements

Technical data

Elements are made of polyamide 6.6., inflammability class acc. to UL 94 V2.

Elements in black colour have higher resistance to UV radiation.

Operating temperature: from -40°C to +70°C.



| Product name | Packing [pcs] | Color | Max. fixed loading [g] | Dimensions [mm] | | | | |
|--------------|---------------|-------|------------------------|-----------------|------|-----|-----|-----|
| | | | | a | b | d | s | w |
| E 91 SR | 100 | white | 40 | 12,5 | 12,5 | bez | 3,0 | 1,5 |
| E 91 SR-C | 100 | black | 40 | 12,5 | 12,5 | bez | 3,0 | 1,5 |
| E 92 SR | 100 | white | 100 | 19,0 | 19,0 | 4,0 | 4,0 | 1,5 |
| E 92 SR-C | 100 | black | 100 | 19,0 | 19,0 | 4,0 | 4,0 | 1,5 |
| E 9 SR | 100 | white | 260 | 28,0 | 28,0 | 6,0 | 5,0 | 1,5 |
| E 9 SR-C | 100 | black | 260 | 28,0 | 28,0 | 6,0 | 5,0 | 1,5 |



Electro-insulating tapes

Application

Universal, self-extinguishing tapes are supplied for using in places where very well insulation properties are required. Ideal for using in industrial and domestic installations.

They are very well self-adhesive, flexible, sealing and have high resistance to moisture penetration, chemicals and abrasion.

They are applied for the reproduction of cables and conductors insulation (up to 1kV), bundling, phase marking, electrolytic corrosion protection, sealing, packing and so on.

Assembling

Tape shall be wound by stretching of 20%. In order that guard against the deglutination of tape; the last braid shall be made without the tension. We recommend to wind the tape in the temperature from 0°C up to 40°C.

Storage

Tapes should be protected against direct sunlight, sudden temperature changes, dust which may pollute the glue layer. Store not longer than 1 year.

Technical data

| | |
|--|--|
| rupture strength | ≥15 N/cm, |
| elongation at rupture | ≥150%, |
| adhesion on steel | ≥ 1,5 N/cm, |
| brakdown voltage | ≥ 5kV / 1 layer |
| flammability | self-extinguishing acc. with norm PN-EN 60454-2 pkt. 20, |
| temperature grade | from 0°C to +80°C, |
| resistance to water and chemical factors | very good, |
| resistance to environmental conditions | very good. |

| Product name | Color | Packing [1 set = ... pcs] | Cumulative packing [sets] | Dimensions | | | index |
|--------------|--------------|---------------------------|---------------------------|------------|------------|----------------|----------|
| | | | | length [m] | width [mm] | thickness [mm] | |
| AR 19/10-RM | mixed | 10 | 50 | 10 | 19 | 0,13 | 0-240-30 |
| AR 19/10-C | black | 10 | 50 | 10 | 19 | 0,13 | 0-240-31 |
| AR 19/20-RM | mixed | 10 | 25 | 20 | 19 | 0,13 | 0-242-30 |
| AR 19/20-C | black | 10 | 25 | 20 | 19 | 0,13 | 0-242-31 |
| AR 19/20-K | red | 10 | 25 | 20 | 19 | 0,13 | 0-242-32 |
| AR 19/20-T | green | 10 | 25 | 20 | 19 | 0,13 | 0-242-34 |
| AR 19/20-Z | yellow | 10 | 25 | 20 | 19 | 0,13 | 0-242-35 |
| AR 19/20-ZT | yellow-green | 10 | 25 | 20 | 19 | 0,13 | 0-242-39 |
| AR 19/20-N | blue | 10 | 25 | 20 | 19 | 0,13 | 0-242-33 |
| AR 19/20-SZ | gray | 10 | 25 | 20 | 19 | 0,13 | 0-242-37 |
| AR 19/20-B | white | 10 | 25 | 20 | 19 | 0,13 | 0-242-36 |
| AR 19/20-BR | brown | 10 | 25 | 20 | 19 | 0,13 | 0-242-38 |
| AR 19/20-F | violet | 10 | 25 | 20 | 19 | 0,13 | 0-242-43 |



□ □ □ □ □ ■ Cable glands

Application

They are meant for sealing of conductor passages e.g. in switchboards. Cable glands guarantee high level of protection against strange solid bodies and water penetration.

Protection degree IP acc. with PN-92/E-08106, EN 60529, IEC529:1989 norms.

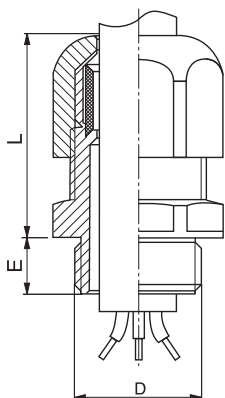
IP 68 - dustproofness, resistance to constant water immersion.

DR ... NP - Glands made of polyamide

Supplied with polyamide nut and sealing washer. Glands are equipped with protection against self-acting turn on during the vibrations.

Technical data:

- material: polyamide 6, color: grey RAL 7035,
- working temperature: from -30°C to +80°C,
- resistance to short-lasting temperature decreasing to -40°C,
- protection degree: IP 68 acc. with EN 60529 norm,
- type of thread: **Pg** - standard UTE C 68-311 - DIN 40430,
M - (metric, ISO) - wg EN 60423 i EN 50262.



| Product name | Packing [pcs] | Conductor diameter [mm] | | Thread type | Dimensions [mm] | | | index |
|--------------|---------------|-------------------------|-----|-------------|-----------------|----|----|------------|
| | | od | do | | D | L | E | |
| DR 7 NP | 50 | 3 | 6,5 | Pg 7 | 12,5 | 24 | 8 | 3-20-01-7 |
| DR 9 NP | 50 | 5 | 8 | Pg 9 | 15,2 | 28 | 8 | 3-20-01-9 |
| DR 11 NP | 50 | 5 | 10 | Pg 11 | 18,6 | 30 | 8 | 3-20-01-11 |
| DR 13 NP | 50 | 8 | 12 | Pg 13,5 | 20,4 | 30 | 9 | 3-20-01-13 |
| DR 16 NP | 50 | 10 | 13 | Pg 16 | 22,5 | 33 | 9 | 3-20-01-16 |
| DR 21 NP | 50 | 13 | 18 | Pg 21 | 28,3 | 41 | 11 | 3-20-01-21 |
| DR 29 NP | 25 | 18 | 25 | Pg 29 | 37 | 41 | 11 | 3-20-01-29 |
| DR 36 NP | 10 | 22 | 32 | Pg 36 | 47 | 51 | 13 | 3-20-01-36 |
| DR 42 NP | 10 | 30 | 38 | Pg 42 | 54 | 54 | 13 | 3-20-01-42 |
| DR 48 NP | 10 | 34 | 44 | Pg 48 | 59,3 | 55 | 14 | 3-20-01-48 |
| DR 12M NP | 50 | 3 | 6,5 | M12x1,5 | 12 | 27 | 8 | 3-21-01-12 |
| DR 16M NP | 50 | 5,5 | 10 | M16x1,5 | 16 | 31 | 8 | 3-21-01-16 |
| DR 20M NP | 50 | 10 | 14 | M20x1,5 | 20 | 36 | 9 | 3-21-01-20 |
| DR 25M NP | 50 | 13 | 18 | M25x1,5 | 25 | 38 | 10 | 3-21-01-25 |
| DR 32M NP | 25 | 18 | 25 | M32x1,5 | 32 | 41 | 10 | 3-21-01-32 |
| DR 40M NP | 10 | 23 | 32 | M40x1,5 | 40 | 51 | 10 | 3-21-01-40 |
| DR 50M NP | 10 | 32 | 38 | M50x1,5 | 50 | 54 | 13 | 3-21-01-50 |
| DR 63M NP | 10 | 37 | 44 | M63x1,5 | 63 | 55 | 14 | 3-21-01-63 |


Tools


SCH 6

| Product name | index | Description | Weight [kg] |
|--------------|------------|--|-------------|
| SCH 6 | 0-207-30 | For insulation stripping 0,2÷6 mm ² , for crimping 0,5-6 mm ² (for: H, HI) | 0,3 |
| PMX-1 | 0-206-04 | Mechanical press with jaws set | 1,15 |
| PMI 1-6 | 0-206-00 | Mechanical press 0,5÷6 mm ² (for: KOI, KBI, KWI, ZKI, WI, NI, NII) | 0,6 |
| PMH 1-6 | 0-206-01 | Mechanical press 0,5÷6 mm ² (for: H, HI) | 0,6 |
| PMN 1-10 | 0-206-03 | Mechanical press 0,5÷10 mm ² (for: K, KOZS, KO, Z, ZCS) | 0,6 |
| PMW 1-6 | 0-206-02 | Mechanical press 0,5÷6 mm ² (for: uninsulated male and female connectors) | 0,6 |
| PZ 0,5-16 | 0-438-01 | Mechanical press 0,5÷16 mm ² (for: H, HI) | 0,31 |
| PZ 10-35 | 0-438-00 | Mechanical press 10÷35 mm ² (for: H, HI) | 0,31 |
| KR95 | 0-834-00-7 | Press for notch type midspan connectors 16÷95 mm ² (don't contain jaws) | 4,9 |
| PH4 | 0-589-00 | Manual hydraulic press 16÷120 mm ² (don't contain jaws) | 4,4 |
| PH6 | 0-236-00 | Manual hydraulic press 16÷300 mm ² (don't contain jaws) | 4,8 |
| PHRN46 | 0-199-00 | Foot-operated hydraulic press, 16÷300 mm ² (don't contain jaws) | 14,5 |

Additional equipment for hydraulic and mechanical presses

| For press | Product name | index | Description | Weight [kg] | |
|---------------|---------------|--------------|---|--|-----|
| PH6 PHRN46 | PH6 PZ16-95 | 0-236-07 | Set of jaws, crimping and forming 16÷95 mm ² | 4,6 | |
| | PH6 PZ120-240 | 0-236-01/1 | Set of jaws, crimping and forming 120÷240 mm ² | 4 | |
| | PH6 Z16 | 0-445-00-5 | Jaws, crimping 16 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z25 | 0-445-00-6 | Jaws, crimping 25 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z35 | 0-445-00-2 | Jaws, crimping 35 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z50 | 0-445-06 | Jaws, crimping 50 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z70 | 0-445-00-4 | Jaws, crimping 70 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z95 | 0-445-00-1 | Jaws, crimping 95 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z120 | 0-445-00-3 | Jaws, crimping 120 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z150 | 0-445-00 | Jaws, crimping 150 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z185 | 0-445-01 | Jaws, crimping 185 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z240 | 0-445-02-2 | Jaws, crimping 240 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,4 | |
| | PH6 Z300 | 0-445-02-10 | Jaws, crimping 300 mm ² (for: K, Z) | 0,4 | |
| | PH6 P16 | 0-445-02-3 | Jaws, forming 16 mm ² | 0,4 | |
| | PH6 P25 | 0-445-02-4 | Jaws, forming 25 mm ² | 0,4 | |
| | PH6 P35 | 0-445-02-5 | Jaws, forming 35 mm ² | 0,4 | |
| | PH6 P50 | 0-445-02-6 | Jaws, forming 50 mm ² | 0,4 | |
| | PH6 P70 | 0-445-02-7 | Jaws, forming 70 mm ² | 0,4 | |
| | PH6 P95 | 0-445-02-8 | Jaws, forming 95 mm ² | 0,4 | |
| | PH6 P120 | 0-445-00-31 | Jaws, forming 120 mm ² | 0,4 | |
| | PH6 P150 | 0-445-02-9 | Jaws, forming 150 mm ² | 0,4 | |
| | PH6 P185 | 0-445-02-0 | Jaws, forming 185 mm ² | 0,4 | |
| | PH6 P240 | 0-445-02-1 | Jaws, forming 240 mm ² | 0,4 | |
| | PH6 P300 | 0-445-02-11 | Jaws, forming 300 mm ² | 0,4 | |
| | PH4 | PH4 PZ16-120 | 0-199-03 | Set of jaws, crimping and forming 16÷120 mm ² | 3,0 |
| | | PH4 Z16 | 0-199-03/6 | Jaws, crimping 16 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,3 |
| PH4 Z25 | | 0-199-03/7 | Jaws, crimping 25 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,3 | |
| PH4 Z35 | | 0-199-03/1 | Jaws, crimping 35 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,3 | |
| PH4 Z50 | | 0-199-03/5 | Jaws, crimping 50 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,3 | |
| PH4 Z70 | | 0-199-03/4 | Jaws, crimping 70 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,3 | |
| PH4 Z95 | | 0-199-03/2 | Jaws, crimping 95 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,3 | |
| PH4 Z120 | | 0-199-03/3 | Jaws, crimping 120 mm ² (for: K, 2 KAM, Z, 2 ZA) | 0,3 | |
| PH4 P16 | | 0-199-31 | Jaws, forming 16 mm ² | 0,3 | |
| PH4 P25 | | 0-199-32 | Jaws, forming 25 mm ² | 0,3 | |
| PH4 P35 | | 0-199-33 | Jaws, forming 35 mm ² | 0,3 | |
| PH4 P50 | | 0-199-34 | Jaws, forming 50 mm ² | 0,3 | |
| PH4 P70 | | 0-199-35 | Jaws, forming 70 mm ² | 0,3 | |
| PH4 P95 | | 0-199-36 | Jaws, forming 95 mm ² | 0,3 | |
| PH4 P120 | | 0-199-37 | Jaws, forming 120 mm ² | 0,3 | |



PH4



PMW 1-6

| For press | Product name | index | Description | Weight [kg] |
|---------------|----------------|---|---|-------------|
| PH6 PHRN46 | PH6 ZT P16-240 | 0-203-00 | Set of jaws, forming 16÷240 mm ² | 5,1 |
| | PH6 ZT P16 | 0-203-10 | Jaws, forming 16 mm ² | 0,6 |
| | PH6 ZT P25 | 0-203-11 | Jaws, forming 25 mm ² | 0,6 |
| | PH6 ZT P35 | 0-203-12 | Jaws, forming 35 mm ² | 0,6 |
| | PH6 ZT P50 | 0-203-13 | Jaws, forming 50 mm ² | 0,6 |
| | PH6 ZT P70 | 0-203-14 | Jaws, forming 70 mm ² | 0,6 |
| | PH6 ZT P95 | 0-203-15 | Jaws, forming 95 mm ² | 0,6 |
| | PH6 ZT P120 | 0-203-16 | Jaws, forming 120 mm ² | 0,6 |
| | PH6 ZT P150 | 0-203-17 | Jaws, forming 150 mm ² | 0,6 |
| | PH6 ZT P185 | 0-203-18 | Jaws, forming 185 mm ² | 0,6 |
| PH6 ZT P240 | 0-203-19 | Jaws, forming 240 mm ² | 0,6 | |
| PH6 PHRN46 | PH6 DA Z16-240 | 0-422-00 | Set of jaws, crimping 16÷240 mm ² (for: DKA, DKAMP, DZA) | 3,6 |
| | PH6 DA Z16 | 0-422-03 | Jaws, crimping 16 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z25 | 0-422-04 | Jaws, crimping 25 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z35 | 0-422-05 | Jaws, crimping 35 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z50 | 0-422-06 | Jaws, crimping 50 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z70 | 0-422-07 | Jaws, crimping 70 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z95 | 0-422-08 | Jaws, crimping 95 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z120 | 0-422-09 | Jaws, crimping 120 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z150 | 0-422-02 | Jaws, crimping 150 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| | PH6 DA Z185 | 0-422-10 | Jaws, crimping 185 mm ² (for: DKA, DKAMP, DZA) | 0,4 |
| PH6 DA Z240 | 0-422-01 | Jaws, crimping 240 mm ² (for: DKA, DKAMP, DZA) | 0,4 | |
| PH6 PHRN46 | PH6 DC Z16-240 | 0-590-00 | Set of jaws, crimping 16÷240 mm ² (for: DK, DZ) | 4,0 |
| | PH6 DC Z16 | 0-590-20 | Jaws, crimping 16 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z25 | 0-590-21 | Jaws, crimping 25 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z35 | 0-590-22 | Jaws, crimping 35 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z50 | 0-590-23 | Jaws, crimping 50 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z70 | 0-590-24 | Jaws, crimping 70 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z95 | 0-590-25 | Jaws, crimping 95 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z120 | 0-590-26 | Jaws, crimping 120 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z150 | 0-590-27 | Jaws, crimping 150 mm ² (for: DK, DZ) | 0,4 |
| | PH6 DC Z185 | 0-590-28 | Jaws, crimping 185 mm ² (for: DK, DZ) | 0,4 |
| PH6 DC Z240 | 0-590-29 | Jaws, crimping 240 mm ² (for: DK, DZ) | 0,4 | |



PMN 1-10

| For press | Product name | index | Description | Weight [kg] | |
|----------------------|------------------|------------|---|--|-----|
| PH6 PHRN46 | PH6 K16-95 | 0-590-03 | Set of jaws, corrugating AL 16÷95 mm ² and AFL 25÷70 mm ² | 3,0 | |
| | PH6 ASX Z16-120 | 0-590-01 | Jaws for insulated conductors ASX Sn 16÷120 mm ² | 1,1 | |
| | PH6 ZC | 0-590-02 | Jaws for clamps of "C" type | 4,2 | |
| | PH6 AFL ZM16-240 | 0-590-07 | Jaws, crimping and pull-of fastening AFL 16÷240 mm ² | 4,6 | |
| | PH6 G | 0-591-00 | Head for jaws | 1,1 | |
| | PH6 GR PH4 | 0-398-02 | Reduction head for PH4 press' jaws | 0,9 | |
| | PH4 | PH4 G | 0-398-03 | Head for jaws | 0,9 |
| | PHRN46 | NK80 | 0-813-00 | Head for cutting cables of diameters up to 80 mm | 7,5 |
| | | GP6 | 0-236-02 | Head for cutting bars and flat steel | 3,1 |
| | | GS6 | 0-590-04 | Head for bending rails and flat bars | 4,5 |
| PH6 PHRN46 | PN6 | 0-591-01 | Head for cutting pins and main sails M10÷M24 | 1,7 | |
| | PN6 G M10-16 | 0-590-05 | Arrowhead M10-M16 for head PN6 | 0,4 | |
| | PN6 G M16-24 | 0-590-06 | Arrowhead M16-M24 for head PN6 | 0,3 | |
| | GD6 | 0-236-09 | Head for making holes in flat bars (without dies) | 3,6 | |
| | GD6 SM6,5 | 0-236-51 | Cutting bolt with die for head GD6, diameter 6,5 mm | 0,4 | |
| | GD6 SM9 | 0-236-52 | Cutting bolt with die for head GD6, diameter 9 mm | 0,4 | |
| | GD6 SM11 | 0-236-53 | Cutting bolt with die for head GD6, diameter 11 mm | 0,4 | |
| | GD6 SM13 | 0-236-54 | Cutting bolt with die for head GD6, diameter 13 mm | 0,4 | |
| | GD6 SM17 | 0-236-55 | Cutting bolt with die for head GD6, diameter 17 mm | 0,4 | |
| | GW6 | 0-591-02 | Head for making holes in sheets | 5,2 | |
| | UPD1 | 0-236-04 | Head for flatten an punching holes on cables endings | 5,1 | |
| KR95 | KR95 K16-95 | 0-834-00-8 | Set of jaws, corrugating AL 16÷95 mm ² and AFL 25÷70 mm ² | 2,2 | |
| | KR95 AK16 | 0-834-83 | Jaws, corrugating 16 mm ² (for: ZLA) | 0,3 | |
| | KR95 AK25 | 0-834-84 | Jaws, corrugating 25 mm ² (for: ZLA) | 0,3 | |
| | KR95 AK35 | 0-834-85 | Jaws, corrugating 35 mm ² (for: ZLA) | 0,3 | |
| | KR95 AK50 | 0-834-81 | Jaws, corrugating 50 mm ² (for: ZLA) | 0,3 | |
| | KR95 AK70 | 0-834-82 | Jaws, corrugating 70 mm ² (for: ZLA) | 0,3 | |
| | KR95 AK95 | 0-834-80 | Jaws, corrugating 95 mm ² (for: ZLA) | 0,3 | |
| | KR95 FK25 | 0-834-86 | Jaws, corrugating 25 mm ² (for: ZLF, ZLFD) | 0,3 | |
| | KR95 FK35 | 0-834-87 | Jaws, corrugating 35 mm ² (for: ZLF, ZLFD) | 0,3 | |
| | KR95 FK50 | 0-834-88 | Jaws, corrugating 50 mm ² (for: ZLF, ZLFD) | 0,3 | |
| | KR95 FK70 | 0-834-89 | Jaws, corrugating 70 mm ² (for: ZLF, ZLFD) | 0,3 | |
| PH4 PH6 PHRN46 | PH4 C16-120 | 0-199-02 | Set of bolts, 16÷120 mm ² | 0,8 | |
| | PH6 C120-240 | 0-199-01 | Set of bolts, 120÷240 mm ² | 0,7 | |
| | PH4 C16 | 0-199-21 | Bolt, 16 mm ² | 0,1 | |
| | PH4 C25 | 0-199-22 | Bolt, 25 mm ² | 0,1 | |
| | PH4 C35 | 0-199-23 | Bolt, 35 mm ² | 0,1 | |
| | PH4 C50 | 0-199-24 | Bolt, 50 mm ² | 0,1 | |
| | PH4 C70 | 0-199-25 | Bolt, 70 mm ² | 0,1 | |
| | PH4 C95 | 0-199-26 | Bolt, 95 mm ² | 0,1 | |
| | PH4 C120 | 0-199-27 | Bolt, 120 mm ² | 0,1 | |
| | PH6 PHRN46 | PH6 C150 | 0-199-28 | Bolt, 150 mm ² | 0,1 |
| | PH6 C185 | 0-199-29 | Bolt, 185 mm ² | 0,1 | |
| | PH6 C240 | 0-199-20 | Bolt, 240 mm ² | 0,1 | |

PZ 10-35





NK80 - Head

Designed for cutting cables of diameters up to 80 mm which aren't under voltage.



SCH 6 - Insulation stripper and press in one

Meant for crimping of sleeving terminals of cross-sections from 0,5 to 6 mm² and for wires insulation stripping regulated by handwheel in ranges 0,2 ÷ 6 and 0,05 ÷ 0,2 mm² where in chosen range it automatically adjust to any cross-section. Regulated bumper with measure enables setting the length on which we want to strip the insulation. The stripper is additionally equipped with shears meant for cutting of single-core wires.

This device is excellent supplement for PMX-1 set.



PMI 1-6 - Press

Designed for crimping insulated terminals and ferrules for wires cross-sections from 0,5 ÷ 6 mm². The press can be also used for crimping heat shrink insulated terminals and ferrules thanks to jaws' round edges. Immobile lower jaw and almost parallel tighten of upper jaw guarantee precise crimping. Construction of body guarantee proper device stiffness. Tempered jaws (HRC 42 ÷ 48) made of steel ensure very high durability of the device.

User-friendly hands protect against direct contact of user's hands with metal elements of the tool. They are made of material which guard against hands deslize thanks to it the long-lasting work with the press is easier.

PMX-1 - Set

The suitcase contains PMI 1-6 press, key for hexagonal screws, 2 additional screws and set of jaws as enclosed in below specification.



| | | |
|--|---|---|
| <p>KOI, NI, KWI, ZKIT 0,5÷6 mm²</p> | <p>uninsulated female connectors 0,5÷6 mm²</p> | <p>K, KO, KW, KOZs, Z 0,5÷10 mm²</p> |
| <p>RG58, RG59/62, BNC/TNC</p> | <p>RG-59, RG-6 typ-F CATV</p> | <p>RJ-45 (8 ways)</p> |



KR95 - Corrugator

Meant for crimping of full-tension notch type midspan connectors and for joining aluminum wires of cross-sections from 16 to 95 mm² and also for AFL wires from 25 to 75 mm².

The corrugator doesn't contain jaws.

PHRN46 - High speed hydraulic press



Very quick performing of work - thanks to faster move of working press frame unit, only few swinging moves pedal is enough.

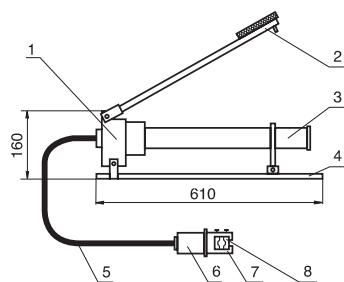
Unlimited access - long pressing hose makes the work safer even in tight and hard available places, in deep holes and also on high levels.

Wide application - thanks to removable and universal heads.

Different types of removable jaws can be applied in the press (they have to be bought separately).

The press is equipped with special safety valve.

Length of press - 610 mm, pressure strength 200kN.



Description:

- 1 - pump,
- 2 - pedal,
- 3 - oil tank,
- 4 - foundation,
- 5 - pressing hose of length from 2,5 m (standard) up to 15 m (on request),
- 6 - working press frame unit,
- 7 - head,
- 8 - jaws (dies), they have to be bought additionally.

PH6 - Manual hydraulic press



Big opportunities for reasonable price - light and mobile press for the use with removable universal heads. Different types of removable jaws can be applied in the press (they have to be bought separately)

The press is equipped with special safety valve.

Length of press - 570 mm, pressure strength 200kN.

PH4 - Manual hydraulic press



Lighter weight and cheaper jaws - PH4 press is designed for crimping of cable ferrules and terminals on aluminum single or multiwire conductors and copper multiwire conductors of cross-section from 16 to 120 mm² acc. with PN (apart from thick wall ferrules and terminals). The set of jaws for crimping also contains jaws for around forming of sector cores.

The press is equipped with special safety valve.

Length of press - 525 mm, pressure strength 120kN.

Assembling of cable terminals and ferrules



Connecting of **aluminum multiwire conductors** is made by one crimping operation with the use of 2 jaws from set PH6 PZ16-95 and PH6 PZ120- 240 or from set PH4 PZ 16-120 (pict. 1).



Single-wire aluminum conductors are connected by performing two operations. First crimping with the use of jaws from set PH6 PZ16-95 and PH6 PZ120-240 or from set PH4 PZ 16-120 (pict. 1), and next after screwing in the bolt (pict. 2) we make additional backward dent.



In case connecting of **sector cores** they should be first formed round with the use of jaws from set PH6 PZ 16-95 and PH 6 PZ 120-240 or from set PH4 PZ 16-120 or PH6 ZT P16-240 (pict. 3).



Connecting of **copper conductors** is done with the use of resist jaw from the set PH6 PZ16-95 and PH6 PZ120-240 or set PH4 PZ 16-120 and screwed in bolt (pict. 4). Crimping can be done single (with one dent) or by two crimping next to each other (with two dents) (pict. 5).



In case if we use **compression terminals and ferrules acc. to DIN standard**, for crimping should be used jaws from set PH6 DA Z16-240 or PH6 DC Z16-240 (with these jaws we don't use bolt) (pict. 6).



GP6 - Head

Designed for cutting of steel flat and angle bars of thickness up to 8 mm, copper and aluminum flat bars of thickness up to 12 mm and steel bars up to dimension of 18 mm. Jaws of width 40 mm allow cutting of flat bars of width up to 80 mm.



GS6 - Bending device

Meant for bending of aluminum and copper conductor rails of width 100 mm and thickness up to 10 mm and also for bending of steel flat bars of width 60 mm and thickness up to 8 mm. Bend angle: 90. Bending device is very useful in modernization and emergency works in transformer stations and any other works connected with using of steel flat bars or tapes.



PN6 - Head

Designed for cutting of corroded caps from M10 up to 24M, specially of damaged line insulators. Supplied in set with arrowheads for cutting.



GD6 - Head

Open construction enables easy making of holes of diameters 6,5 / 9 / 11 / 13 / 17 mm in aluminum and copper collective rails of transformer stations of thickness up to 10 mm and steel flat bars of thickness up to 6 mm.



GW6 - Head

Designed for cutting out of round and other shape holes in switchgears walls, control desks, boxes and other devices which elements are made of sheet of thickness up to 2 mm. In cut out holes can be placed: signal lamps, glands, control buttons, measures etc. Standard set consists of head, dies and bolts enabling cutting out of round holes of diameters up to [mm]: 16,5 / 18 / 22,5 / 30,5 / 38,5 / 48,5 / 55,5 / 60,5.



UPD1 - Head

Meant for making of connections (without termination) of single-core aluminum cables of cross-sections from 35 up to 240 mm². It makes flatten and hole. The head set contains piercing die for making holes of diameter 6,5 / 9 / 11 / 13 / 17 mm.



Vibroisolators

Application

Vibroisolators are supplied for the precise and foundationless foundation of machines and devices.

They act in two ways:

insulate the environment from vibration evoked by running machines (active vibration), insulate the machine from vibration and shocks caused by the environment, for instance: the vibration transmitted through by floor, evoked by others machines (passive vibration).

They decrease efficaciously the noise, vibration and blows level, improving the environment protection conditions, and industrial safety. Thanks to them, the production management costs are lowered, for instance: cost of special floor execution. The advantage is shorter assembling and location changes of machines. This vibroisolators extend the machines and objects life. Easy using.

Construction

UC vibroisolator consists of two cardinal parts: metal (cap and special screw), flexible (settling disk and rings).

Suitable construction of cap causes the transmission of static and dynamic forces on total surface and guarantees no deformation of the cap as the result of fatigue.

Irregularity of surface under the machine is liquidated with the aid of screw control and thrust-washer.

The rings are made of rubber resistant for oil and greases.

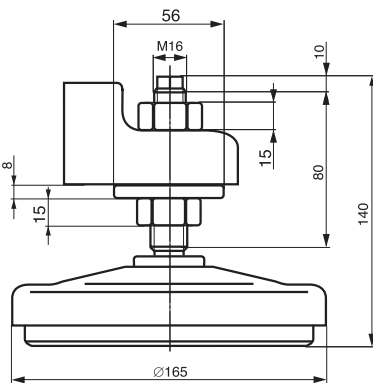
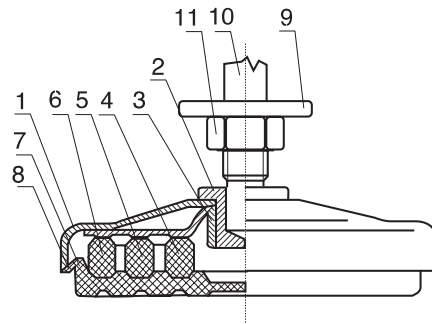
They have different degree of hardness (50°Sh and 70°Sh) depends on type of vibroisolator.

Metal elements have corrosion protection.



Drawing description:

- 1 - complete cap,
- 2 - resistance seat,
- 3 - sleeve,
- 4, 5, 6 - rubber rings,
- 7 - settling disk,
- 8 - retainer ring,
- 9 - thrust washer,
- 10 - special screw,
- 11 - nut.



| Load on one vibroisolator [kg]* | | Product name | Rings system |
|---------------------------------|---------|--------------|-------------------|
| minimal | maximal | | |
| 100 | 400 | UC 1.1 | ○ ● ● ● ● ● ○ |
| 200 | 500 | UC 1.2 | ● ● ● ○ ● ● ● |
| 300 | 800 | UC 1.3 | ● ● ● ● ● ● ● |
| 300 | 1000 | UC 1.4 | ○ ● ● ● ● ● ○ |
| 400 | 1400 | UC 1.5 | ● ● ○ ○ ● ● ● |
| 500 | 2000 | UC 1.6 | ● ● ● ● ● ● ● |

* recommended load necessary for effective vibrations deaden.

Screw dimensions

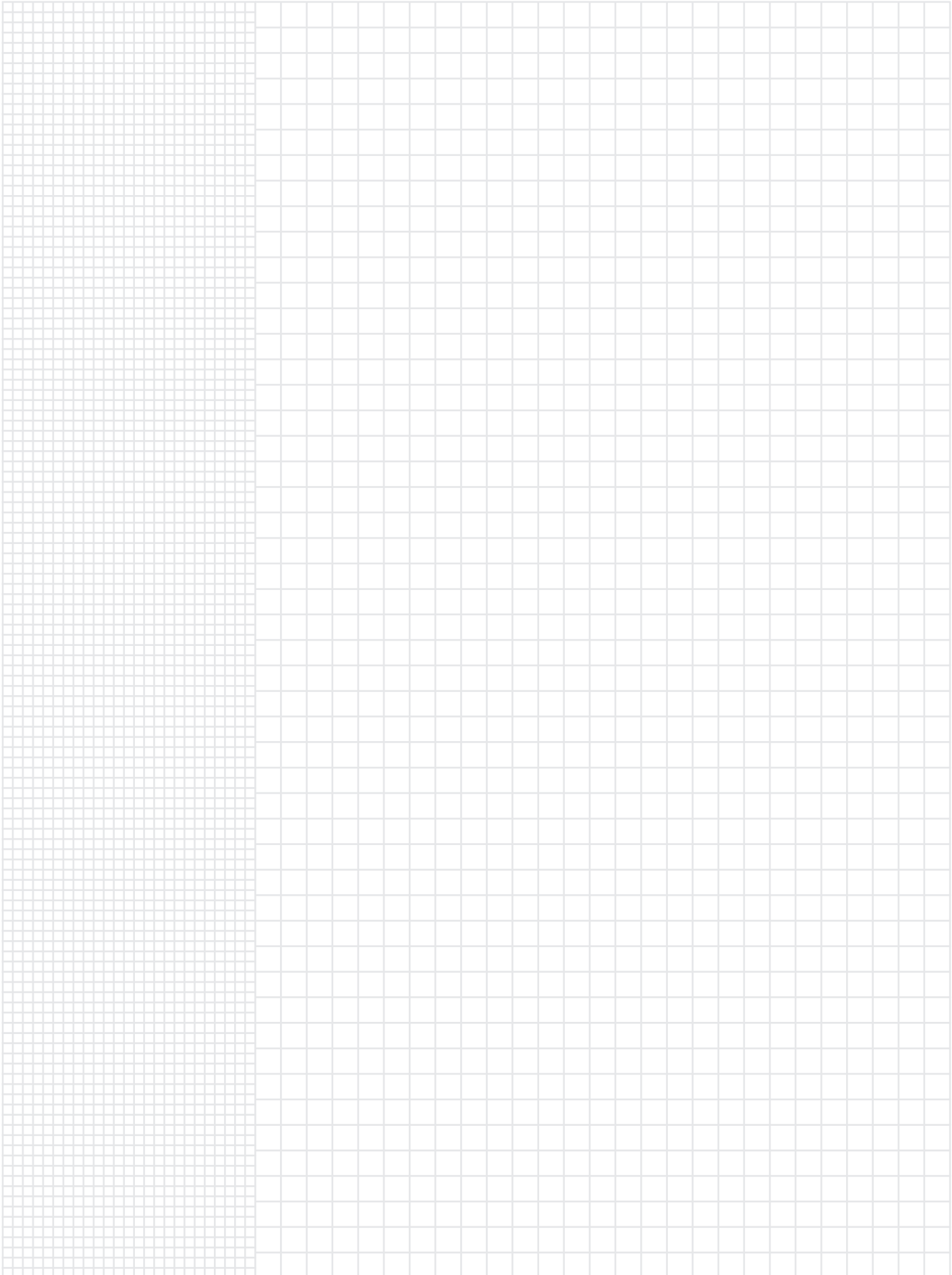
Standard screws used for vibroisolators have dimension M16, caps M16 have length 15 mm.

Dependable on clients needs screws of dimensions from range M12 to M24 can be produced on request.

Standard working length of screw M16 is 80 mm.

On special demand different lengths of screws are also possible,

- | - vibroisolator axis
- - ring
- - without ring



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osprzet termokurczliwy
osprzet kablowy

Prawy hydrauliczne

- Pakiety
- Rozszerzenia
- Szablony
- Zestawy

Wszystkie produkty

| Model | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość |
|-------|----------|----------|----------|----------|----------|----------|----------|
| 200 | 20 | 18 | 16 | 14 | 12 | 10 | 8 |

osprzet termokurczliwy
osprzet kablowy

Wszystkie produkty

| Model | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość |
|-------|----------|----------|----------|----------|----------|----------|----------|
| 200 | 20 | 18 | 16 | 14 | 12 | 10 | 8 |

osprzet termokurczliwy
osprzet kablowy

Zestawy rur termokurczliwych dwukomorowych

| Model | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość |
|--------|----------|----------|----------|----------|----------|----------|----------|
| RC 4.2 | 7.6 | 5.0 | 3.0 | 1.5 | 0.8 | 0.4 | 0.2 |

osprzet termokurczliwy
osprzet kablowy

Formularz zamówienia

Adres:
Imię:
Nazwa firmy:
Ulica / numer:
Kod pocztowy:
Miasto / powiat:
Telefon kontaktowy:
Fax:
E-mail:
 Adres e-mail

Wszystkie produkty

osprzet termokurczliwy
osprzet kablowy

Mufy kablowe

| Model | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość |
|--------|----------|----------|----------|----------|----------|----------|----------|
| RC 4.2 | 7.6 | 5.0 | 3.0 | 1.5 | 0.8 | 0.4 | 0.2 |

osprzet termokurczliwy
osprzet kablowy

Wszystkie produkty

| Model | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość |
|--------|----------|----------|----------|----------|----------|----------|----------|
| RC 4.2 | 7.6 | 5.0 | 3.0 | 1.5 | 0.8 | 0.4 | 0.2 |

osprzet termokurczliwy
osprzet kablowy

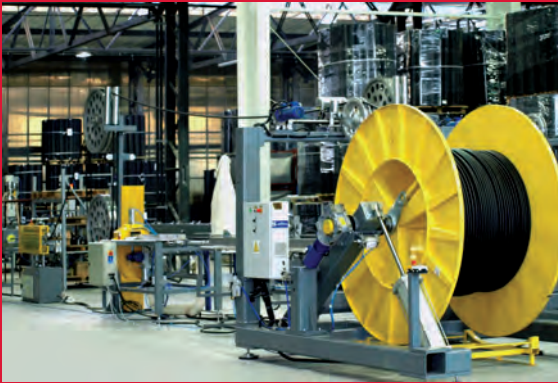
Koncówki kablowe aluminiowe

| Model | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość |
|--------|----------|----------|----------|----------|----------|----------|----------|
| RC 4.2 | 7.6 | 5.0 | 3.0 | 1.5 | 0.8 | 0.4 | 0.2 |

osprzet termokurczliwy
osprzet kablowy

Wszystkie produkty

| Model | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość | Prędkość |
|--------|----------|----------|----------|----------|----------|----------|----------|
| RC 4.2 | 7.6 | 5.0 | 3.0 | 1.5 | 0.8 | 0.4 | 0.2 |



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