# **Electrical connection systems**

Sleeves for compacted conductors and sector-shaped conductors - copper

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





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

#### **Characteristics**

Annealed material optimises material and crimping properties

#### Material

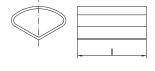
- Copper (HCP)

#### **Surface**

Tin-plated to protect against corrosion

#### **Technical instructions**

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



Nominal cross section mm <sup>2</sup> DIN version	Part No.	Dimension mm für l	Weight 100 pcs. ~kg	Packing unit/pcs
35	VHD353	17,5	0.11	100
50	VHD503	25,0	0.26	50
70	VHD703	25,0	0.39	50
95	VHD953	32,0	0.66	50
120	VHD1203	32,0	0.68	50
150	VHD1503	32,0	0.74	25
185	VHD1853	35,0	1.13	25
240	VHD2403	35,0	1.22	 25



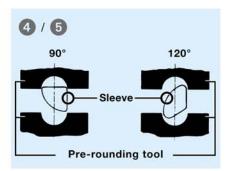
# Assembly instructions for sleeves for type VHR and VHD compacted conductors

We recommend the use of additional VHR and VHD sleeves for compacted round conductors to ensure that the tubular cable lugs and connectors fit accurately.

For sector-shaped conductors, we recommend the use of additional sector sleeves VHR 3 or VHR 4 and VHD 3 or VHD 4 with Cu cable lugs and connectors to prevent the conductor recoil. Sleeves need to be rounded with pre-rounding tools.

#### Please note:

- Ensure that the conductor is deformed as little as possible when cutting to length.
- Strip the conductor insulation in line with the insertion length.
- Slip the sleeve up to the front cut edge of the conductor.
- Place the conductor and sleeve in the pre-rounding tool as per the diagram.
- Crimp the sleeve
  - a) Crimping operation as per the diagram (1st pre-crimp)
  - b) Crimp turned through 90° (2nd pre-crimp)
  - c) Crimp turned through 30° (finish-crimp)
  - d) Crimp turned through 30° as required (finish-crimp)



# Instructions for fitting reduction sleeves

Only wide hydraulic crimping dies to be used when crimping more than two cross-sections.

# Assembly instructions for full tension Al/steel connectors to DIN 48085, part 3

The connectors consist of an Al sleeve (E-Al 99.5) and a soft steel sleeve (St 52).

- Straighten cable ends, remove dirt and any oxide layer.
- Slip the Al-compression joint onto one of the cable ends.
- Tie off the cable end and strip the Al cores.
- Tie off Al and steel cores.
- Slip on the steel sleeve and crimp through according to the crimping marks.
- Slide the Al sleeve centrally over the crimped steel sleeve and crimp according to the crimping marks







- Caution: Do not crimp in the centre, in the area of the steel connector. Do not crimp in the area of the cones.
- Remove excess compound after crimping the connector.
  - Warning: The compound must not be removed, either fully or partially, prior to assembly.

The tool dies can be assigned either by colour-coding, or preferably based on the code assigned to the cross-section. The dies for the steel sleeve have a black finish, those for the Al sleeve are zinc-coated.

### **General information:**

The crimping process has to be continued until the dies are completely closed, otherwise a proper crimp cannot be guaranteed.