

Crimping technology for terminals

Made as: female connectors, male connectors, female- and- male connectors, bullet and receptacles insulated and fully insulated.

Material:

CuZn 30F 43 brass acc. to DIN 17670 or M70 brass acc. to PN-67/H-87025.
Insulation: PVC, PA (polyamide, nylon), PC (polycarbonate); working temperature up to 130 °C (according to material).

Surface: tin-plated, 4 µm.

Design: WI male connector, NI female connector – DIN 46245 – Teil 1,2,3.

Rated sizes:

WI male connector and NI female connector – cross-section 0,5 to 6 [mm²], width of male connector: 2,8; 4,8; 6,3 [mm], thickness: 0,5; 0,8 [mm].
WI connectors and GI receptacles: cross-section 0,5 to 6 [mm²], pin/receptacle dia. 4 and 5 [mm].

Application: Male connectors and female connectors are used for connecting wire to the terminal of electric device.

One of the basic parameters effecting on the connection made (contact) is the material elasticity of the connector. Because of the heating-up of the contact the above-mentioned terminals are used up to maximum 6 mm².

There are various constructions of the part of compressed terminal:

- in the form of PVC tube (see fig. 1) pulled on the tubular part of the terminal (the insulation can be widened on its end to facilitate inserting of wire, the code acc. to Ergom: BPCV);
- in the form of PVC, PA or PC tube (see fig. 2 and 3) placed on the tin-plated copper sleeve which in turn is pressed onto the tubular part of the terminal (no special identification acc. to Ergom). Such construction makes the entry of the wire easier and considerably advances the mounting compared with the terminal having PVC insulation and is often called "easy entry" because of a conical form of the copper sleeve.

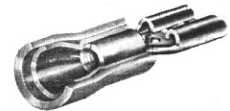
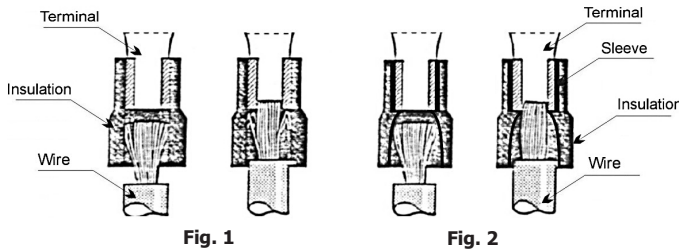


Fig. 3

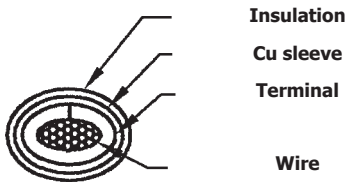
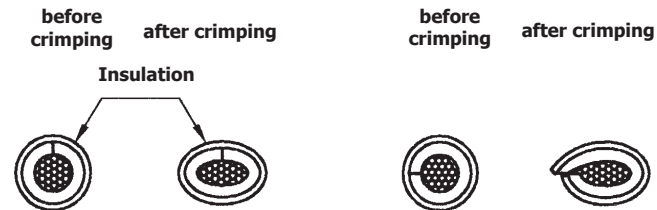


Fig. 4

Crimping technology:

The terminals are crimped by means of tools with the dies compressing to "oval" (see fig. 4). In this crimping technology for insulated terminals not only the material of the terminal and wire but also the material of the insulation sleeve is deformed. When compressing the insulated terminals with additional copper sleeve the position of the terminal seam in the crimping die is of no importance (see fig. 6), but when compressing the terminals without an additional sleeve the position of terminal seam in the crimping die is of vital importance for quality reasons (see fig. 5). The terminals without the additional sleeve (code B) are recommended only for low tensioned joints.

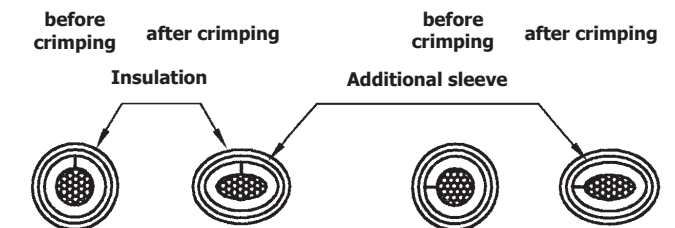
Fig. 5 Insulated terminals, without additional sleeve



Correct position of terminal seam in the die, along the direction of crimping force action

Wrong position of terminal seam in the die, across the direction of crimping force action

Fig. 6 Insulated terminals, with additional sleeve



Correct position of terminal seam in the die, along the direction of crimping force action

Correct position of terminal seam in the die, across the direction of crimping force action