

HDC insert
HDC HE 24 FC

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 16
 D-32758 Detmold
 Germany
 Fon: +49 5231 14-0
 Fax: +49 5231 14-292083
 www.weidmueller.com



For the crimp connection, the wire connection level is designed as a crimp contact. The established crimp connection has been used as a standard for decades. Crimp contacts are not delivered with the inserts.

Number of poles: **24**

Rated current: **16 A**

Rated voltage: **500 V**

Nominal voltage acc. to UL/CSA: **600 V AC/DC**

Crimp connection

General ordering data

| | |
|------------|--|
| Type | HDC HE 24 FC |
| Order No. | 121160000 |
| Version | HDC insert, Female, 500 V, 16 A, No. of poles: 24, Crimp connection, Size: 8 |
| GTIN (EAN) | 4008190033200 |
| Qty. | 1 pc(s). |

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Technical data**Dimensions and weights**

| | | | |
|------------|---------|-----------------|------------|
| Length | 111 mm | Length (inches) | 4.37 inch |
| Width | 34 mm | Width (inches) | 1.339 inch |
| Height | 33.5 mm | Height (inches) | 1.319 inch |
| Net weight | 75 g | | |

Temperatures

| | |
|-------------------|-------------------|
| Limit temperature | -40 °C ... 125 °C |
|-------------------|-------------------|

Dimensions

| | | | |
|------------------|---------|-------------------|--------|
| Height of socket | 33.5 mm | Total length base | 111 mm |
|------------------|---------|-------------------|--------|

General data

| | | | |
|--------------------------------------|-------------------|------------------------------|---|
| Conductor cross-section | 4 mm ² | Insulating material | PC glass-fibre reinforced (UL-listed and railway-certified) |
| Insulating material group | IIIa | Insulation resistance | 10 ¹⁰ Ω |
| Material | Copper alloy | No. of poles | 24 |
| Plugging cycles, gold | ≥ 500 | Plugging cycles, silver | ≥ 500 |
| Pollution severity | 3 | Rated current (DIN EN 61984) | 16 A |
| Rated impulse voltage (DIN EN 61984) | 6 kV | Rated voltage (DIN EN 61984) | 500 V |
| Rated voltage according to UL/CSA | 600 V AC/DC | Series | HE |
| Size | 8 | Surface finish | Silver passivated, gold |
| Type | Female | UL 94 flammability rating | V-0 |
| Volume resistance | ≤ 2mΩ | | |

Connection data PE

| | | | |
|---|---------------------|---|---------------------|
| Blade size, crosshead | size PH1 | Blade size, slotted (PE connection) | SD 0.8 x 4.0 |
| Connection type PE | Screw connection | Fixing screw | M 4 |
| Rated cross-section | 4 mm ² | Stripping length PE connection | 10 mm |
| Tightening torque, max. PE connection | 1.5 Nm | Tightening torque, min. PE connection | 1.2 Nm |
| Wire connection cross section, finely stranded, max. | 4 mm ² | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 4 mm ² |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 mm ² | Wire connection cross-section, finely stranded, min. | 0.5 mm ² |
| Wire cross section, AWG (PE), max. | AWG 12 | Wire cross section, AWG (PE), min. | AWG 20 |
| Wire cross-section, solid, max. | 4 mm ² | Wire cross-section, solid, min. | 0.5 mm ² |

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Technical data**Version**

| | | | |
|---|---------------------|---|-------------------------|
| Conductor cross-section, max. | 4 mm ² | Conductor cross-section, min. | 0.5 mm ² |
| Material | Copper alloy | Size | 8 |
| Stripping length, rated connection | 7.5 mm | Surface finish | Silver passivated, gold |
| Type of connection | Crimp connection | Volume resistance | ≤ 2mΩ |
| Wire connection cross section AWG, max. | AWG 12 | Wire connection cross section AWG, min. | AWG 20 |
| Wire connection cross section, finely stranded, max. | 4 mm ² | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 4 mm ² |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 mm ² | Wire connection cross-section, finely stranded, min. | 0.5 mm ² |
| Wire cross-section, solid, max. | 4 mm ² | Wire cross-section, solid, min. | 0.5 mm ² |

Classifications

| | | | |
|------------|-------------|------------|-------------|
| ETIM 3.0 | EC001121 | ETIM 4.0 | EC000438 |
| ETIM 5.0 | EC000438 | ETIM 6.0 | EC000438 |
| UNSPSC | 30-21-18-01 | eClass 5.1 | 27-14-34-19 |
| eClass 6.2 | 27-26-12-04 | eClass 7.1 | 27-44-02-05 |
| eClass 8.1 | 27-44-02-05 | eClass 9.0 | 27-44-02-05 |
| eClass 9.1 | 27-44-02-05 | | |

Product information

| | |
|---------------------------------|---|
| Descriptive text technical data | Rated voltage 630 V / 6 kV at pollution degree 2 |
| Instructions for accessories | Accessories, see chapter J - Tools, see chapter K |

Approvals

Approvals



ROHS Conform

Downloads

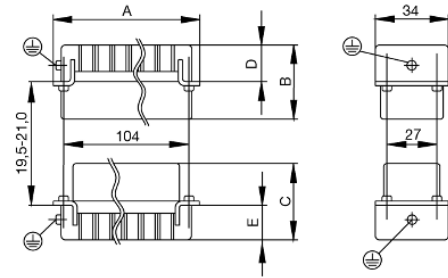
| | |
|-------------------------|---|
| Brochure/Catalogue | CAT 3 HDC 17/18 EN FL FIELDWIRING EN |
| Engineering Data | EPLAN, WSCAD |
| Technical Documentation | 1211600000 HDC_HE_24_FC_STP_Blatt_1.pdf |

Data sheet

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Drawings



Tightening torques and screwing tools

| Screw size | Connector type | Dia. tightening torque in Nm | Recommended blade inserts and AF size for hexagon socket | |
|---------------------------------------|---|---|--|-----------------------------------|
| M 2.5 | Signal contacts | | | |
| | S 6/6 | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | S 6/12 | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| M 2.9 x 0.5 | Fastening screws | | | |
| | HQ 4/2 | 0.8 (plastic) / 1.1 (metal) | SD 0.6 x 3.5 mm or PH0 | |
| | HQ 8 | 0.8 (plastic) / 1.1 (metal) | SD 0.6 x 3.5 mm or PH0 | |
| | HQ 17 | 0.8 (plastic) / 1.1 (metal) | SD 0.6 x 3.5 mm or PH0 | |
| M 3 | Contact screws | | | |
| | HA 3 | 0.5 - 0.55 | SD 0.5 x 3.0 mm | |
| | HA 4 | 0.5 - 0.55 | SD 0.5 x 3.0 mm | |
| | HA 10 bis HA 48 | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PH0 | |
| | HE | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | HVE | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | Signal contacts: | | | |
| | S 4/2 | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | S 4/8 | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | PE connection via female contact | | | |
| | S 4 | 0.5 - 0.8 | SD 0.6 x 3.5 mm | |
| | ConCept modular frame, metal | 0.5 - 0.55 | SD 0.6 x 3.5 mm | |
| | PE terminal | | | |
| | HQ 5 | 0.5 - 0.55 | SD 0.6 x 3.5 or 0.8 x 4 mm | |
| | HQ 7 | 0.5 - 0.55 | SD 0.6 x 3.5 or 0.8 x 4 mm | |
| | Fastening screws | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | Guide pin | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | Guide bush | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | Coding pins | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZO | |
| | M 4 | Contact screws | | |
| | | HSB | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1 |
| PE connection via male contact | | | | |
| S 4 | | 0.5 - 0.8 | SD 0.6 x 3.5 mm | |
| ConCept modular frame, metal | | 1.2 - 1.5 | SD 0.6 x 3.5 mm | |
| PE terminal | | | | |
| HA | | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PH1 | |
| HE | | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PH1 | |
| HEE | | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PH1 | |
| HVE | | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PH1 | |
| HD | | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1 | |
| HDD | | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1 | |
| S 6/6 (for signal contacts) | | 1.2 - 1.5 | 0.8 x 4 mm or PZ1 | |
| ConCept modular frame, plastic | | 1.2 - 1.5 | 0.8 x 4 mm or PZ1 | |
| M 5 | | PE terminal | | |
| | | HSB | 2 - 2.5 | SD 1 x 5.5 mm or PZ2 |
| | | S 4/0 (Screw connection) | 2 - 2.5 | SD 1.2 x 6.5 mm or PH2 |
| | S 4/0 (Axial screw connection) | 2 - 2.5 | SD 0.8 x 4 mm or PZ 2 | |
| | S 4/2 | 2 - 2.5 | SD 1.2 x 6.5 mm or PH2 | |
| | S 4/8 | 2 - 2.5 | SD 1.2 x 6.5 mm or PH2 | |
| | S 6/12 | 2 - 2.5 | SD 0.8 x 4 mm or PZ 2 | |
| | S 6/36 | 2 - 2.5 | SD 1.2 x 6.5 mm or PH2 | |
| | S 8/24 | 2 - 2.5 | SD 1.2 x 6.5 mm or PH2 | |
| | S 12/2 | 2 - 2.5 | SD 1.2 x 6.5 mm or PH2 | |
| | M 6 | Power contacts | | |
| S 4/0 (Screw connection) | | 1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²) | SD 0.8 x 4 mm | |
| S 4/2 | | 1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²) | SD 0.8 x 4 mm | |
| S 4/8 | | 1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²) | SD 0.8 x 4 mm | |
| M 7 x 0.75 | Power contacts | | | |
| | S 4 | 1.1 - 1.7 | SW 2 | |
| | S 6/6 (+ PE) | 6 - 8 | SW 4 | |
| M 8 x 0.75 | Power contacts | | | |
| | S 6/12 | 1.1 - 1.7 | SW 2 | |
| | S 8/0 (+ PE) | 6 (10-16 mm ²) - 7 (25 mm ²) | SW 4 | |
| M10 x 1 | Power contacts | | | |
| | S 4/0 (Axial connection) | 2 - 3 | SW 3 | |

Increasing the tightening torque does not improve the contact resistance. The stated torque settings offer optimal mechanical, thermal and electrical conditions. Exceeding the recommended values may even damage the conductor and terminal.