

**HDC insert  
HDC HD 8 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



The HD range features a high density of contacts. It is thus optimally suited for signal processing.  
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: **7 - 8**

Rated current: **10 A**

Rated voltage: 42/**250 V**

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

Crimp connection

**General ordering data**

|            |                                                                            |
|------------|----------------------------------------------------------------------------|
| Type       | HDC HD 8 FC                                                                |
| Order No.  | <a href="#">1650600000</a>                                                 |
| Version    | HDC insert, Female, 50 V, 10 A, No. of poles: 8, Crimp connection, Size: 1 |
| GTIN (EAN) | 4008190870959                                                              |
| Qty.       | 1 pc(s).                                                                   |

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**Technical data**
**Dimensions and weights**

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 21 mm   | Width (inches)  | 0.827 inch |
| Height     | 33.2 mm | Height (inches) | 1.307 inch |
| Depth      | 21 mm   | Depth (inches)  | 0.827 inch |
| Net weight | 10 g    |                 |            |

**Temperatures**

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

**Environmental Product Compliance**

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

**Dimensions**

|                  |         |                   |       |
|------------------|---------|-------------------|-------|
| Height of socket | 33.2 mm | Total length base | 21 mm |
|------------------|---------|-------------------|-------|

**General data**

|                                      |                     |                              |                                                             |
|--------------------------------------|---------------------|------------------------------|-------------------------------------------------------------|
| Conductor cross-section              | 2.5 mm <sup>2</sup> | Insulating material          | PC glass-fibre reinforced (UL-listed and railway-certified) |
| Insulating material group            | IIIa                | Insulation strength          | 10 <sup>10</sup> Ω                                          |
| Material                             | Copper alloy        | No. of poles                 | 8                                                           |
| Plugging cycles, gold                | ≥ 500               | Plugging cycles, silver      | ≥ 500                                                       |
| Pollution severity                   | 3                   | Rated current (DIN EN 61984) | 10 A                                                        |
| Rated impulse voltage (DIN EN 61984) | 4 kV                | Rated voltage (DIN EN 61984) | 50 V                                                        |
| Rated voltage according to UL/CSA    | 600 V AC/DC         | Series                       | HD                                                          |
| Size                                 | 1                   | Surface finish               | Silver passivated, gold                                     |
| Type                                 | Female              | UL 94 flammability rating    | V-0                                                         |
| Volume resistance                    | ≤ 4mΩ               |                              |                                                             |

**Connection data PE**

|                                                                                         |                     |                                                                                         |                     |
|-----------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------|---------------------|
| Connection type PE                                                                      | Screw connection    | Rated cross-section                                                                     | 2.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max.                                    | 2.5 mm <sup>2</sup> | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 2.5 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 mm <sup>2</sup> | Wire connection cross-section, finely stranded, min.                                    | 0.5 mm <sup>2</sup> |
| Wire cross section, AWG (PE), max.                                                      | AWG 14              | Wire cross section, AWG (PE), min.                                                      | AWG 20              |
| Wire cross-section, solid, max.                                                         | 2.5 mm <sup>2</sup> | Wire cross-section, solid, min.                                                         | 0.5 mm <sup>2</sup> |

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**Technical data**
**Version**

|                                                                                         |                     |                                                                                         |                         |
|-----------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------|-------------------------|
| Conductor cross-section, max.                                                           | 2.5 mm <sup>2</sup> | Conductor cross-section, min.                                                           | 0.14 mm <sup>2</sup>    |
| Material                                                                                | Copper alloy        | Size                                                                                    | 1                       |
| Stripping length, rated connection                                                      | 8 mm                | Surface finish                                                                          | Silver passivated, gold |
| Type of connection                                                                      | Crimp connection    | Volume resistance                                                                       | ≤ 4mΩ                   |
| Wire connection cross section AWG, max.                                                 | AWG 14              | Wire connection cross section AWG, min.                                                 | AWG 26                  |
| Wire connection cross section, finely stranded, max.                                    | 2.5 mm <sup>2</sup> | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 2.5 mm <sup>2</sup>     |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 mm <sup>2</sup> | Wire connection cross-section, finely stranded, min.                                    | 0.5 mm <sup>2</sup>     |
| Wire cross-section, solid, max.                                                         | 2.5 mm <sup>2</sup> | Wire cross-section, solid, min.                                                         | 0.5 mm <sup>2</sup>     |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001121    | ETIM 4.0   | EC001121    |
| ETIM 5.0   | EC001121    | 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 |            |             |

**Approvals**

Approvals



ROHS

Conform

**Downloads**

|                    |                                                                         |
|--------------------|-------------------------------------------------------------------------|
| Brochure/Catalogue | <a href="#">CAT 3 HDC 17/18 EN</a><br><a href="#">FL FIELDWIRING EN</a> |
| Engineering Data   | <a href="#">EPLAN_WSCAD</a>                                             |
| Engineering Data   | <a href="#">STEP</a>                                                    |

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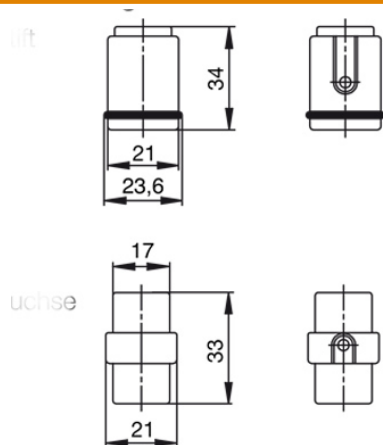
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## Drawings



# Tightening torques and screwing tools

| Screw size         | Connector type                          | Dia. tightening torque in Nm                                                      | Recommended blade inserts and AF size for hexagon socket |
|--------------------|-----------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------|
| <b>M 2.5</b>       | <b>Signal contacts</b>                  |                                                                                   |                                                          |
|                    | S 6/6                                   | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
|                    | S 6/12                                  | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
| <b>M 2.9 x 0.5</b> | <b>Fastening screws</b>                 |                                                                                   |                                                          |
|                    | 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                                   |
| <b>M 3</b>         | <b>Contact screws</b>                   |                                                                                   |                                                          |
|                    | 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 PZ0                                   |
|                    | HVE                                     | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
|                    | <b>Signal contacts:</b>                 |                                                                                   |                                                          |
|                    | S 4/2                                   | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
|                    | S 4/8                                   | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
|                    | <b>PE connection via female contact</b> |                                                                                   |                                                          |
|                    | 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                                          |
|                    | <b>PE terminal</b>                      |                                                                                   |                                                          |
|                    | 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                               |
|                    | <b>Fastening screws</b>                 | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
|                    | <b>Guide pin</b>                        | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
|                    | <b>Guide bush</b>                       | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
|                    | <b>Coding pins</b>                      | 0.5 - 0.55                                                                        | SD 0.6 x 3.5 mm or PZ0                                   |
| <b>M 4</b>         | <b>Contact screws</b>                   |                                                                                   |                                                          |
|                    | HSB                                     | 1.2 - 1.5                                                                         | SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1                        |
|                    | <b>PE connection via male contact</b>   |                                                                                   |                                                          |
|                    | 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                                          |
|                    | <b>PE terminal</b>                      |                                                                                   |                                                          |
|                    | 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                                        |
| <b>M 5</b>         | <b>PE terminal</b>                      |                                                                                   |                                                          |
|                    | 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                                   |
| <b>M 6</b>         | <b>Power contacts</b>                   |                                                                                   |                                                          |
|                    | S 4/0 (Screw connection)                | 1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> ) | SD 0.8 x 4 mm                                            |
|                    | S 4/2                                   | 1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> ) | SD 0.8 x 4 mm                                            |
|                    | S 4/8                                   | 1.2 (1.5 mm <sup>2</sup> ) / 2 (2.5 mm <sup>2</sup> ) / 3 (4-16 mm <sup>2</sup> ) | SD 0.8 x 4 mm                                            |
| <b>M 7 x 0.75</b>  | <b>Power contacts</b>                   |                                                                                   |                                                          |
|                    | S 4                                     | 1.1 - 1.7                                                                         | SW 2                                                     |
|                    | S 6/6 (+ PE)                            | 6 - 8                                                                             | SW 4                                                     |
| <b>M 8 x 0.75</b>  | <b>Power contacts</b>                   |                                                                                   |                                                          |
|                    | S 6/12                                  | 1.1 - 1.7                                                                         | SW 2                                                     |
|                    | S 8/0 (+ PE)                            | 6 (10-16 mm <sup>2</sup> ) - 7 (25 mm <sup>2</sup> )                              | SW 4                                                     |
| <b>M10 x 1</b>     | <b>Power contacts</b>                   |                                                                                   |                                                          |
|                    | 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.