

## HDC HDD 42 FC

**Weidmüller Interfaces GmbH & Co. KG**

Postfach 3030

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The HDD series with machined crimp contacts is designed for high pole counts in tight spaces. Users save installation space with the smaller design, without having to limit the number of poles.

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: 42

Rated current: **10 A**

Rated voltage: **250 V**

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

Crimp connection

### General ordering data

|            |   |
|------------|---|
| Version    | HDC insert, Female, 250 V, 10 A, Number of poles: 42, Crimp connection, Size: 4 |
| Order No.  | <a href="#">1651180000</a>  |
| Type       | HDC HDD 42 FC   |
| GTIN (EAN) | 4008190299781   |
| Qty.       | 1 pc(s).  |

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

|            |       |                 |            |
|------------|-------|-----------------|------------|
| Depth      | 64 mm | Depth (inches)  | 2.52 inch  |
| Height     | 33 mm | Height (inches) | 1.299 inch |
| Width      | 34 mm | Width (inches)  | 1.339 inch |
| Net weight | 54 g  |                 |            |

**Temperatures**

Limit temperature -40 °C ... 125 °C

**Environmental Product Compliance**

REACH SVHC Potassium perfluorobutane sulfonate 29420-49-3

SCIP 1609748e-c278-4c9b-b3d1-e6215d2988cd

| Chemical resistance | Substance                 | Chemical resistance     |
|---------------------|---------------------------|-------------------------|
|                     | Acetone                   | Resistant               |
|                     | Ammonia, watery           | Conditionally resistant |
|                     | Petrol                    | Resistant               |
|                     | Benzene                   | Resistant               |
|                     | Diesel oil                | Conditionally resistant |
|                     | Acetic acid, concentrated | Resistant               |
|                     | Potassium hydroxide       | Conditionally resistant |
|                     | Methanol                  | Conditionally resistant |
|                     | Motor oil                 | Conditionally resistant |
|                     | Lye, diluted              | Resistant               |
|                     | Hydrochlorofluorocarbons  | Conditionally resistant |
|                     | Outdoor use               | Conditionally resistant |

**Dimensions**

|                  |       |                   |       |
|------------------|-------|-------------------|-------|
| Height of socket | 33 mm | Total length base | 64 mm |
| Width            | 34 mm |                   |       |

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## Technical data

## General data

|                                      |   |                              |                     |
|--------------------------------------|---|------------------------------|---------------------|
| BG                                   | 4   | 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  | Number of poles              | 42                  |
| 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) | 250 V               |
| Rated voltage according to UL/CSA    | 600 V AC/DC   | Series                       | HDD                 |
| Size                                 | 4   | Type                         | Female              |
| UL 94 flammability rating            | V-0   | Volume resistance            | ≤4 mΩ               |

## Connection data PE

|                                       |                     |                                       |                            |
|---------------------------------------|---------------------|---------------------------------------|----------------------------|
| Blade size, crosshead                 | size PZ 1           | Blade size, slotted (PE connection)   | SD 0.6 x 3.5, SD 0.8 x 4.0 |
| Connection type PE                    | Screw connection    | Fixing screw                          | M 4                        |
| Rated cross-section                   | 2.5 mm <sup>2</sup> | Stripping length PE connection        | 10 mm                      |
| Tightening torque, max. PE connection | 1.5 Nm              | Tightening torque, min. PE connection | 1.2 Nm                     |
| Wire cross section, AWG (PE), max.    | AWG 14              | Wire cross section, AWG (PE), min.    | AWG 20                     |

## Version

|   |                      |   |                     |
|---|----------------------|---|---------------------|
| BG  | 4                    | Conductor cross-section, max.   | 2.5 mm <sup>2</sup> |
| Conductor cross-section, min.   | 0.14 mm <sup>2</sup> | Size  | 4                   |
| Stripping length, rated connection  | 8 mm                 | Type of connection  | Crimp connection    |
| Volume resistance   | ≤4 mΩ                | 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, min.                                    | 0.5 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 cross-section, solid, max.   | 2.5 mm <sup>2</sup> |
| Wire cross-section, solid, min.   | 0.5 mm <sup>2</sup>  |   |                     |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC000438    | ETIM 7.0    | EC000438    |
| ETIM 8.0    | EC000438    | ECLASS 9.0  | 27-44-02-05 |
| ECLASS 9.1  | 27-44-02-05 | ECLASS 10.0 | 27-44-02-05 |
| ECLASS 11.0 | 27-44-02-05 | ECLASS 12.0 | 27-44-02-05 |

## Approvals

Approvals



ROHS

Conform

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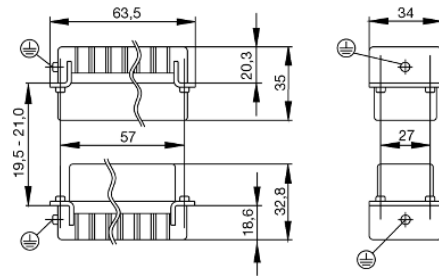
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**Drawings**



# 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 PZO                                   |
|                                       | S 6/12                                  | 0.5 - 0.55  | SD 0.6 x 3.5 mm or PZO                                   |
| <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 PZO                                   |
|                                       | HVE                                     | 0.5 - 0.55  | SD 0.6 x 3.5 mm or PZO                                   |
|                                       | <b>Signal contacts:</b>                 |   |  |
|                                       | 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                                   |
|                                       | <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 PZO                                   |
|                                       | <b>Guide pin</b>                        | 0.5 - 0.55  | SD 0.6 x 3.5 mm or PZO                                   |
|                                       | <b>Guide bush</b>                       | 0.5 - 0.55  | SD 0.6 x 3.5 mm or PZO                                   |
|                                       | <b>Coding pins</b>                      | 0.5 - 0.55  | SD 0.6 x 3.5 mm or PZO                                   |
|                                       | <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.

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