

**HDC HE 24 FT****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

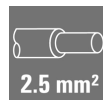
D-32758 Detmold

Germany

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www.weidmueller.com



For the tension clamp connection, the wire connection level is designed as a tension clamp element. As a result, it is virtually maintenance-free and a safe, permanent and vibration-proof connection is established.

Tension clamp connection

**General ordering data**

|            |                                                                            |
|------------|----------------------------------------------------------------------------|
| Type       | HDC HE 24 FT                                                               |
| Order No.  | <a href="#">1745790000</a>                                                 |
| Version    | , Female, 500 V, 16 A, No. of poles: 24, Tension-clamp connection, Size: 8 |
| GTIN (EAN) | 4008190985516                                                              |
| Qty.       | 1 pc(s).                                                                   |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 34 mm   | Width (inches)  | 1.339 inch |
| Height     | 33 mm   | Height (inches) | 1.299 inch |
| Depth      | 111 mm  | Depth (inches)  | 4.37 inch  |
| Net weight | 111.2 g |                 |            |

## Temperatures

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

## Environmental Product Compliance

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

## Dimensions

|                  |       |                   |        |
|------------------|-------|-------------------|--------|
| Height of socket | 33 mm | Total length base | 111 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                         | 24                                                          |
| 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   | Type                                 | Female                                                      |
| UL 94 flammability rating    | V-0                 | Volume resistance                    | ≤ 2mΩ                                                       |

## Connection data PE

|                                                                                         |                     |                                                                                         |                     |
|-----------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------|---------------------|
| Blade size, crosshead                                                                   | size PH 1           | 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 <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 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 12              | 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

|                                                                                         |                      |                                                                                         |                          |
|-----------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------|--------------------------|
| Blade size, slotted (screw connection)                                                  | SD 0.5 x 3.0         | Conductor cross-section, max.                                                           | 2.5 mm <sup>2</sup>      |
| Conductor cross-section, min.                                                           | 0.25 mm <sup>2</sup> | Material                                                                                | Copper alloy             |
| Size                                                                                    | 8                    | Stripping length, rated connection                                                      | 8 mm                     |
| Surface finish                                                                          | Silver passivated    | Type of connection                                                                      | Tension-clamp connection |
| Volume resistance                                                                       | ≤ 2 mΩ               | Wire connection cross section AWG, max.                                                 | AWG 14                   |
| Wire connection cross section AWG, min.                                                 | AWG 24               | 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   | 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 |            |             |

## 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, Zuken E3.S</a>                                |
| Engineering Data        | <a href="#">STEP</a>                                                    |
| Technical Documentation | <a href="#">1745790000_HDC_HE_24_FT_STP_Blatt__1.pdf</a>                |

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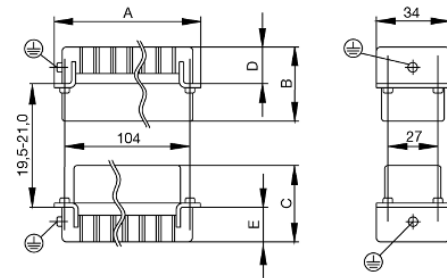
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[www.weidmueller.com](http://www.weidmueller.com)**Drawings**

# 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.