

**HDC HE 6 MT****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



For the tension clamp connection, the wire connection level is designed as a tension clamp element. Thus practically no servicing is required. In addition, a secure and permanent connection is established which is resistant to vibrations.

Number of poles: **6**Rated current: **24 A**Rated voltage: **500 V**Nominal voltage acc. to UL/CSA: **600 V AC/DC**

Tension clamp connection

**General ordering data**

|            |                                                                                      |
|------------|--------------------------------------------------------------------------------------|
| Version    | HDC insert, Male, 500 V, 24 A, Number of poles: 6, Tension-clamp connection, Size: 3 |
| Order No.  | <a href="#">1745820000</a>                                                           |
| Type       | HDC HE 6 MT                                                                          |
| GTIN (EAN) | 4008190985547                                                                        |
| Qty.       | 1 pc(s).                                                                             |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 51 mm   | Depth (inches)  | 2.008 inch |
| Height     | 33.5 mm | Height (inches) | 1.319 inch |
| Width      | 34 mm   | Width (inches)  | 1.339 inch |
| Net weight | 43 g    |                 |            |

## Temperatures

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

## Dimensions

|                |         |                   |       |
|----------------|---------|-------------------|-------|
| Height of plug | 33.5 mm | Total length base | 51 mm |
| Width          | 34 mm   |                   |       |

## General data

|                                      |                                                             |        |  |
|--------------------------------------|-------------------------------------------------------------|--------|--|
| BG                                   | 3                                                           |        |  |
| Colour                               | beige                                                       |        |  |
| Conductor cross-section              | 2.5 mm <sup>2</sup>                                         |        |  |
| Free from halogens                   | true                                                        |        |  |
| Insulating material                  | PC glass-fibre reinforced (UL-listed and railway-certified) |        |  |
| Insulating material group            | IIIa                                                        |        |  |
| Insulation strength                  | 10 <sup>10</sup> Ω                                          |        |  |
| Low smoke acc. DIN EN 45545-2        | Yes                                                         |        |  |
| Material                             | Copper alloy                                                |        |  |
| Number of poles                      | 6                                                           |        |  |
| Plugging cycles, silver              | ≥ 500                                                       |        |  |
| Pollution severity                   | 3                                                           |        |  |
| Rated current (DIN EN 61984)         | 24 A                                                        |        |  |
| Rated current (UR)                   | Wire connection cross section AWG                           | AWG 14 |  |
|                                      | Rated current                                               | 15 A   |  |
|                                      | Wire connection cross section AWG                           | AWG 16 |  |
|                                      | Rated current                                               | 10 A   |  |
|                                      | Wire connection cross section AWG                           | AWG 18 |  |
|                                      | Rated current                                               | 7 A    |  |
|                                      | Wire connection cross section AWG                           | AWG 20 |  |
|                                      | Rated current                                               | 5 A    |  |
| Rated current (cUR)                  | Wire connection cross section AWG                           | AWG 14 |  |
|                                      | Rated current                                               | 14.4 A |  |
|                                      | Wire connection cross section AWG                           | AWG 16 |  |
|                                      | Rated current                                               | 11.7 A |  |
|                                      | Wire connection cross section AWG                           | AWG 18 |  |
|                                      | Rated current                                               | 7.6 A  |  |
|                                      | Wire connection cross section AWG                           | AWG 20 |  |
|                                      | Rated current                                               | 7.2 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                                 | 3                                                           |        |  |
| Surface finish                       | Silver passivated                                           |        |  |
| Type                                 | Male                                                        |        |  |
| Type of connection                   | Tension-clamp connection                                    |        |  |
| UL 94 flammability rating            | V-0                                                         |        |  |

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## Technical data

Volume resistance  $\leq 2 \text{ m}\Omega$ 

## Connection data PE

|                                       |              |                                       |                   |
|---------------------------------------|--------------|---------------------------------------|-------------------|
| 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 cross section, AWG (PE), max.    | AWG 12            |
| Wire cross section, AWG (PE), min.    | AWG 20       |                                       |                   |

## Version

|                                                                                         |                          |                                                      |                          |
|-----------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------|--------------------------|
| BG                                                                                      | 3                        | 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                                                 | 3                        |
| Stripping length, rated connection                                                      | 8 mm                     | Surface finish                                       | Silver passivated        |
| Type of connection                                                                      | Tension-clamp connection | Volume resistance                                    | $\leq 2 \text{ m}\Omega$ |
| 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, 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 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    | ETIM 9.0    | EC000438    |
| ETIM 10.0   | 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 |
| ECLASS 13.0 | 27-44-02-05 | ECLASS 14.0 | 27-44-02-05 |
| ECLASS 15.0 | 27-44-02-05 |             |             |

|                     |                           |
|---------------------|---------------------------|
| Substance           | Acetone                   |
| Chemical resistance | Resistant                 |
| Substance           | Ammonia, watery           |
| Chemical resistance | Conditionally resistant   |
| Substance           | Petrol                    |
| Chemical resistance | Resistant                 |
| Substance           | Benzene                   |
| Chemical resistance | Resistant                 |
| Substance           | Diesel oil                |
| Chemical resistance | Conditionally resistant   |
| Substance           | Acetic acid, concentrated |
| Chemical resistance | Resistant                 |
| Substance           | Potassium hydroxide       |
| Chemical resistance | Conditionally resistant   |
| Substance           | Methanol                  |

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|                     |                          |
|---------------------|--------------------------|
| Chemical resistance | Conditionally resistant  |
| Substance           | Motor oil                |
| Chemical resistance | Conditionally resistant  |
| Substance           | Lye, diluted             |
| Chemical resistance | Resistant                |
| Substance           | Hydrochlorofluorocarbons |
| Chemical resistance | Conditionally resistant  |
| Substance           | Outdoor use              |
| Chemical resistance | Conditionally resistant  |

## Environmental Product Compliance

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RoHS Compliance Status               | Compliant with exemption                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| RoHS Exemption (if applicable/known) | 6c                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| REACH SVHC                           | Lead 7439-92-1 Potassium perfluorobutane sulfonate 29420-49-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SCIP                                 | b67daa31-7dca-434d-8290-da7fb52f83a2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Chemical resistance                  | de.myview.objectmodel.impl.BlockImpl@43327a9e de.myview.objectmodel.impl.BlockImpl@4f0cc0d0<br>de.myview.objectmodel.impl.BlockImpl@37c67cf4 de.myview.objectmodel.impl.BlockImpl@70cfd10c<br>de.myview.objectmodel.impl.BlockImpl@20f9b301 de.myview.objectmodel.impl.BlockImpl@9daed8e<br>de.myview.objectmodel.impl.BlockImpl@dff019d de.myview.objectmodel.impl.BlockImpl@3b6e69f<br>de.myview.objectmodel.impl.BlockImpl@6eba2c53 de.myview.objectmodel.impl.BlockImpl@30521a97<br>de.myview.objectmodel.impl.BlockImpl@45d416e9 de.myview.objectmodel.impl.BlockImpl@716292d2 |

## Approvals

Approvals



|                         |                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID         | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/</a> |
| ROHS                    | Conform                                                                                                                                                                                                                                                                                                                                                 |
| UL File Number Search   | UL Website                                                                                                                                                                                                                                                                                                                                              |
| Certificate No. (cURus) | E92202                                                                                                                                                                                                                                                                                                                                                  |

## Downloads

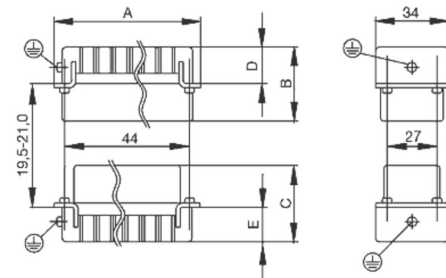
|                                             |                                                                        |
|---------------------------------------------|------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Manufacturer's declaration</a>                             |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                        |
| Technical Documentation                     | <a href="#">1745820000 HDC HE 06 MT STP Blatt_1.pdf</a>                |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                               |
| Brochures                                   | <a href="#">FL FIELDWIRING EN</a><br><a href="#">FL FIELDWIRING EN</a> |

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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.