

## HDC HA 16 FT 33-48

**Weidmüller Interfaces GmbH & Co. KG**

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The small and slim HA series can be used wherever space is limited.

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

|            |   |
|------------|---|
| Version    | HDC insert, Female, 250 V, 16 A, Number of poles: 16, Tension-clamp connection, Size: 5 |
| Order No.  | <a href="#">1896820000</a>  |
| Type       | HDC HA 16 FT 33-48  |
| GTIN (EAN) | 4032248592425   |
| Qty.       | 1 pc(s).  |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 73 mm   | Depth (inches)  | 2.874 inch |
| Height     | 31.1 mm | Height (inches) | 1.224 inch |
| Width      | 23 mm   | Width (inches)  | 0.906 inch |
| Net weight | 61 g    |                 |            |

## Temperatures

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

## Dimensions

|                  |         |                   |       |
|------------------|---------|-------------------|-------|
| Height of socket | 31.1 mm | Total length base | 73 mm |
| Width            | 23 mm   |                   |       |

## General data

|                                      |   |                              |                     |
|--------------------------------------|---|------------------------------|---------------------|
| BG                                   | 5   | 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        |
| Number of poles                      | 16  | Plugging cycles, silver      | ≥ 500               |
| Pollution severity                   | 3   | Rated current (DIN EN 61984) | 16 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                       | HA                  |
| Size                                 | 5   | Surface finish               | Silver passivated   |
| Type                                 | Female  | UL 94 flammability rating    | V-0                 |
| Volume resistance                    | ≤2 mΩ   |                              |                     |

## Connection data PE

|                                       |                     |                                       |              |
|---------------------------------------|---------------------|---------------------------------------|--------------|
| Blade size, crosshead                 | size PH1            | Blade size, slotted (PE connection)   | SD 0.8 x 4.0 |
| Connection type PE                    | Screw connection    | Fixing screw                          | M 4          |
| Rated cross-section                   | 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  | 5                        | 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  | 5                    |
| 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, 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>  |

Creation date March 6, 2023 12:41:07 PM CET

Catalogue status 18.02.2023 / We reserve the right to make technical changes.

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## 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 |

|                     |                           |
|---------------------|---------------------------|
| 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                  |
| 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

|                     |  |
|---------------------|--|
| 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@653a97de de.myview.objectmodel.impl.BlockImpl@dc0ae2<br>de.myview.objectmodel.impl.BlockImpl@7eb5e5b1 de.myview.objectmodel.impl.BlockImpl@433b8ec1<br>de.myview.objectmodel.impl.BlockImpl@728e751f de.myview.objectmodel.impl.BlockImpl@12e5fab6<br>de.myview.objectmodel.impl.BlockImpl@43ac0d36 de.myview.objectmodel.impl.BlockImpl@5cfede04<br>de.myview.objectmodel.impl.BlockImpl@5d596e09 de.myview.objectmodel.impl.BlockImpl@60541f5e<br>de.myview.objectmodel.impl.BlockImpl@43326bdf de.myview.objectmodel.impl.BlockImpl@69168343 |

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## Technical data

### Approvals

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate No. (cURus) | E92202     |

### Downloads

|                         |  |
|-------------------------|--|
| Engineering Data        | <a href="#">CAD data – STEP</a>  |
| Engineering Data        | <a href="#">WSCAD</a>  |
| Technical Documentation | <a href="#">1896840000_HDC_HA_16_MT_17-32_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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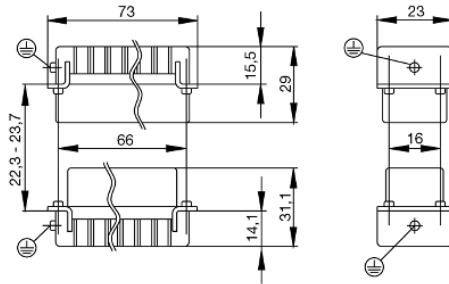
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Drawings



# 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.