

## HDC insert HDC HQ 7 MC

**Weidmüller Interface GmbH & Co. KG**  
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The HQ series - big features in a compact design The electrical values speak for themselves. The standard HE crimp contacts can also be used here. 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. Pole count: **7 (+PE)**  
 Rated current: **10 A**  
 Rated voltage: **400 V**  
 Nominal voltage acc. to UL/CSA: **600 V AC/DC**  
 Crimp connection

### General ordering data

|            |   |
|------------|---|
| Type       | HDC HQ 7 MC   |
| Order No.  | <a href="#">1003190000</a>  |
| Version    | HDC insert, Male, 400 V, 10 A, No. of poles: 7, Crimp connection, Size: 1 |
| GTIN (EAN) | 4032248698189   |
| Qty.       | 1 pc(s).  |

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## Technical data

### Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Length     | 21 mm   | Length (inches) | 0.827 inch |
| Width      | 21 mm   | Width (inches)  | 0.827 inch |
| Height     | 39.5 mm | Height (inches) | 1.555 inch |
| Net weight | 15.4 g  |                 |            |

### Temperatures

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

### Dimensions

|                |         |                   |       |
|----------------|---------|-------------------|-------|
| Height of plug | 39.5 mm | Total length base | 21 mm |
|----------------|---------|-------------------|-------|

### General data

|                              |   |                                      |                 |
|------------------------------|---|--------------------------------------|-----------------|
| Insulating material          | PC glass-fibre reinforced (UL-listed and railway-certified) | Insulating material group            | IIIa            |
| Insulation resistance        | $10^{10} \Omega$  | Material                             | Copper alloy    |
| No. of poles                 | 7   | Plugging cycles, gold                | $\geq 500$      |
| Plugging cycles, silver      | $\geq 500$  | Pollution severity                   | 3               |
| Rated current (DIN EN 61984) | 10 A  | Rated impulse voltage (DIN EN 61984) | 6 kV            |
| Rated voltage (DIN EN 61984) | 400 V   | Rated voltage according to UL/CSA    | 600 V AC/DC     |
| Series                       | HQ  | Size                                 | 1               |
| Surface finish               | Silver passivated, gold                                     | Type                                 | Male            |
| UL 94 flammability rating    | V-0   | Volume resistance                    | $\leq 4m\Omega$ |

### Connection data PE

|   |                      |   |                      |
|---|----------------------|---|----------------------|
| Blade size, slotted (PE connection)   | SD 0.6 x 3.5         | Connection type PE  | Screw connection     |
| Fixing screw  | M 3                  | Rated cross-section   | 2.5 mm <sup>2</sup>  |
| Stripping length PE connection  | 5 mm                 | Tightening torque, max. PE connection   | 0.55 Nm              |
| Tightening torque, min. PE connection   | 0.5 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. | 0.14 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded, min.                                    | 0.14 mm <sup>2</sup> | Wire cross section, AWG (PE), max.  | AWG 14               |
| Wire cross section, AWG (PE), min.  | AWG 26               |   |                      |

### Version

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

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**Data sheet**

**HDC insert  
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**Technical data**

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001121    | ETIM 4.0   | EC001121    |
| ETIM 5.0   | EC001121    | ETIM 6.0   | EC000438    |
| UNSPSC     | 30-21-18-01 | eClass 5.1 | 27-14-34-19 |
| eClass 6.2 | 27-14-34-19 | 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 |            |             |

**Product information**

|                                 |  |
|---------------------------------|--|
| Descriptive text technical data | Earth with same conductor cross-sections as crimp connections via plug and socket contact. |
| Descriptive text accessories    | Accessories, see chapter J - Tools, see chapter K  |

**Approvals**

Approvals



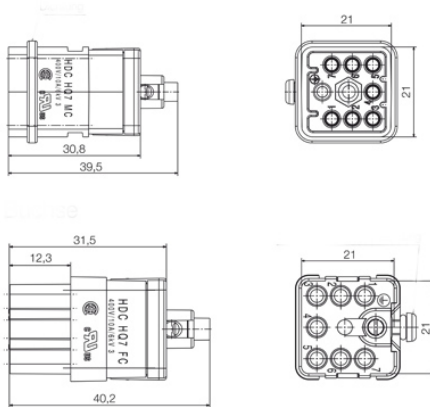
ROHS Conform

**Downloads**

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

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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.