

**HDC insert  
HDC S4 SAS****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

D-32758 Detmold

Germany

Fon: +49 5231 14-0

Fax: +49 5231 14-292083

www.weidmueller.com



The MixMate series of connectors can simultaneously transmit high rated currents and voltages as well as signals. An axial screw can be used to secure the wire.  
Axial screw connection TOP connection

**General ordering data**

|            |                                                                                 |
|------------|---------------------------------------------------------------------------------|
| Type       | HDC S4 SAS                                                                      |
| Order No.  | <a href="#">1789990000</a>                                                      |
| Version    | HDC insert, Pin, 1000 V, 40 A, No. of poles: 4, Axial screw connection, Size: 3 |
| GTIN (EAN) | 4032248212057                                                                   |
| Qty.       | 1 pc(s).                                                                        |

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## Technical data

### Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 34 mm   | Width (inches)  | 1.339 inch |
| Height     | 41.3 mm | Height (inches) | 1.626 inch |
| Depth      | 51 mm   | Depth (inches)  | 2.008 inch |
| Net weight | 78.7 g  |                 |            |

### Temperatures

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

### Environmental Product Compliance

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

### Dimensions

|                |         |                   |       |
|----------------|---------|-------------------|-------|
| Height of plug | 41.3 mm | Total length base | 51 mm |
|----------------|---------|-------------------|-------|

### General data

|                                      |                   |                              |                                                             |
|--------------------------------------|-------------------|------------------------------|-------------------------------------------------------------|
| Conductor cross-section              | 6 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                 | 4                                                           |
| No. of power contacts                | 4                 | Plugging cycles, silver      | ≥ 500                                                       |
| Pollution severity                   | 3                 | Rated current (DIN EN 61984) | 40 A                                                        |
| Rated impulse voltage (DIN EN 61984) | 8 kV              | Rated voltage (DIN EN 61984) | 1,000 V                                                     |
| Rated voltage according to UL/CSA    | 600 V AC/DC       | Series                       | MixMate                                                     |
| Size                                 | 3                 | Surface finish               | Silver passivated                                           |
| Type                                 | Pin               | UL 94 flammability rating    | V-0                                                         |
| Volume resistance                    | ≤ 1 mΩ            |                              |                                                             |

### Connection data PE

|                                                                                         |                     |                                                                                         |                     |
|-----------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------|---------------------|
| Blade size, slotted (PE connection)                                                     | SD 0.6 x 3.5        | Connection type PE                                                                      | Screw connection    |
| Fixing screw                                                                            | M 4                 | Rated cross-section                                                                     | 6 mm <sup>2</sup>   |
| Stripping length PE connection                                                          | 8 mm                | Tightening torque, max. PE connection                                                   | 0.8 Nm              |
| Tightening torque, min. PE connection                                                   | 0.5 Nm              | Wire connection cross section, finely stranded, max.                                    | 6 mm <sup>2</sup>   |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 6 mm <sup>2</sup>   | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 2.5 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded, min.                                    | 2.5 mm <sup>2</sup> | Wire cross section, AWG (PE), max.                                                      | AWG 11              |
| Wire cross section, AWG (PE), min.                                                      | AWG 14              | Wire cross-section, solid, max.                                                         | 6 mm <sup>2</sup>   |
| Wire cross-section, solid, min.                                                         | 2.5 mm <sup>2</sup> |                                                                                         |                     |

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**Technical data****Power contact**

|                                                     |                   |                                             |                        |
|-----------------------------------------------------|-------------------|---------------------------------------------|------------------------|
| Clamping range, power contact, max.                 | 6 mm <sup>2</sup> | Clamping range, power contact, min.         | 2.5 mm <sup>2</sup>    |
| No. of poles, performance contact                   | 4                 | Rated current (DIN EN 61984), power contact | 40 A                   |
| Rated impulse voltage (DIN EN 61984), power contact | 8 kV              | Rated voltage (DIN EN 61984), power contact | 1,000 V                |
| Stripping length, performance contact               | 8 mm              | Tightening torque, power contact, max.      | 1.7 Nm                 |
| Tightening torque, power contact, min.              | 1.1 Nm            | Type of connection, power contact           | Axial screw connection |

**Version**

|                                                                                         |                     |                                                                                         |                        |
|-----------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------------------------|------------------------|
| Clamping screw                                                                          | M 7 x 0.75 mm       | Conductor cross-section, max.                                                           | 6 mm <sup>2</sup>      |
| Conductor cross-section, min.                                                           | 2.5 mm <sup>2</sup> | Material                                                                                | Copper alloy           |
| Size                                                                                    | 3                   | Stripping length, rated connection                                                      | 8 mm                   |
| Surface finish                                                                          | Silver passivated   | Type of connection                                                                      | Axial screw connection |
| Volume resistance                                                                       | ≤ 1 mΩ              | Wire connection cross section AWG, max.                                                 | AWG 11                 |
| Wire connection cross section AWG, min.                                                 | AWG 14              | Wire connection cross section, finely stranded, max.                                    | 6 mm <sup>2</sup>      |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 6 mm <sup>2</sup>   | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 2.5 mm <sup>2</sup>    |
| Wire connection cross-section, finely stranded, min.                                    | 2.5 mm <sup>2</sup> | Wire cross-section, solid, max.                                                         | 6 mm <sup>2</sup>      |
| Wire cross-section, solid, min.                                                         | 2.5 mm <sup>2</sup> |                                                                                         |                        |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC002413    | 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 | 27-26-12-90 | eClass 7.1 | 27-44-02-90 |
| eClass 8.1 | 27-44-02-90 | 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>                                                    |

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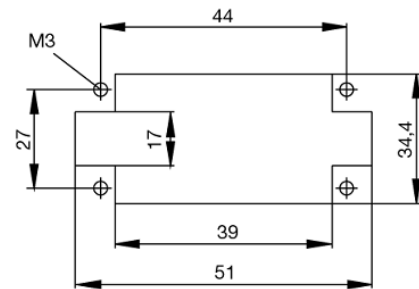
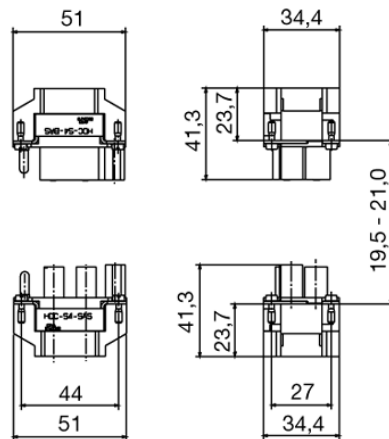
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# Tightening torques and screwing tools

| 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.