

**HDC S4/0 FS****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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

The MixMate series of connectors can simultaneously transmit high rated currents and voltages as well as signals.

The wire connection level is designed for screw connections.

Screw connection.

**General ordering data**

|            |  |
|------------|--|
| Version    | HDC insert, Female, 830 V, 80 A, Number of poles: 4, Screw connection, Size: 6 |
| Order No.  | <a href="#">1023210000</a>   |
| Type       | HDC S4/0 FS  |
| GTIN (EAN) | 4032248739288  |
| Qty.       | 1 pc(s).   |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 84.5 mm | Depth (inches)  | 3.327 inch |
| Height     | 46.2 mm | Height (inches) | 1.819 inch |
| Width      | 34 mm   | Width (inches)  | 1.339 inch |
| Net weight | 105 g   |                 |            |

## Temperatures

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

## Dimensions

|                  |         |                   |         |
|------------------|---------|-------------------|---------|
| Height of socket | 46.2 mm | Total length base | 84.5 mm |
| Width            | 34 mm   |                   |         |

## General data

|                                      |   |                               |                   |
|--------------------------------------|---|-------------------------------|-------------------|
| BG                                   | 6   | Colour                        | beige             |
| Conductor cross-section              | 16 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  | Max. torque for main contact  | 3 Nm              |
| Min. torque for main contact         | 1.5 Nm  | Number of poles               | 4                 |
| Number of power contacts             | 4   | Plugging cycles, silver       | ≥ 500             |
| Pollution severity                   | 3   | Rated current (DIN EN 61984)  | 80 A              |
| Rated impulse voltage (DIN EN 61984) | 8 kV  | Rated voltage (DIN EN 61984)  | 830 V             |
| Rated voltage according to UL/CSA    | 600 V AC/DC   | Series                        | MixMate           |
| Size                                 | 6   | Surface finish                | Silver passivated |
| Type                                 | Female  | Type of connection            | Screw connection  |
| UL 94 flammability rating            | V-0   | Volume resistance             | ≤ 1 mΩ            |

## Connection data PE

|                                       |              |                                       |                    |
|---------------------------------------|--------------|---------------------------------------|--------------------|
| Blade size, slotted (PE connection)   | SD 1.2 x 6.5 | Connection type PE                    | Screw connection   |
| Fixing screw                          | M 5          | Rated cross-section                   | 16 mm <sup>2</sup> |
| Stripping length PE connection        | 13 mm        | Tightening torque, max. PE connection | 2.5 Nm             |
| Tightening torque, min. PE connection | 2 Nm         | Wire cross section, AWG (PE), max.    | AWG 6              |
| Wire cross section, AWG (PE), min.    | AWG 20       |                                       |                    |

## Power contact

|   |                     |
|---|---------------------|
| Clamping range, power contact, max.         | 16 mm <sup>2</sup>  |
| Clamping range, power contact, min.         | 1.5 mm <sup>2</sup> |
| Number of poles, performance contact        | 4                   |
| Rated current (DIN EN 61984), power contact | 80 A                |

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## Technical data

|   |                                   |        |
|---|-----------------------------------|--------|
| Rated current power circuit (UR)                            | Wire connection cross section AWG | AWG 14 |
|   | Rated current                     | 30 A   |
|   | Wire connection cross section AWG | AWG 12 |
|   | Rated current                     | 35 A   |
|   | Wire connection cross section AWG | AWG 10 |
|   | Rated current                     | 50 A   |
|   | Wire connection cross section AWG | AWG 8  |
|   | Rated current                     | 70 A   |
| Rated current power circuit (cUR)                           | Wire connection cross section AWG | AWG 6  |
|   | Rated current                     | 80 A   |
|   | Wire connection cross section AWG | AWG 14 |
|   | Rated current                     | 15 A   |
|   | Wire connection cross section AWG | AWG 12 |
|   | Rated current                     | 25 A   |
|   | Wire connection cross section AWG | AWG 10 |
|   | Rated current                     | 29 A   |
| Rated current power circuit (cUR)                           | Wire connection cross section AWG | AWG 8  |
|   | Rated current                     | 33 A   |
|   | Wire connection cross section AWG | AWG 6  |
|   | Rated current                     | 35 A   |
| Rated current signal circuit (UR)                           | Wire connection cross section AWG | AWG 14 |
|   | Rated current                     | 16 A   |
| Rated current signal circuit (cUR)                          | Wire connection cross section AWG | AWG 14 |
|   | Rated current                     | 12 A   |
| Rated impulse voltage (DIN EN 61984), 8 kV<br>power contact |                                   |        |
| Rated voltage (DIN EN 61984), power<br>contact              |                                   |        |
| Stripping length, performance contact                       |                                   |        |
| Type of connection, power contact                           |                                   |        |

## Signal contact

|                                    |                                   |        |
|------------------------------------|-----------------------------------|--------|
| Rated current power circuit (UR)   | Wire connection cross section AWG | AWG 14 |
|                                    | Rated current                     | 30 A   |
|                                    | Wire connection cross section AWG | AWG 12 |
|                                    | Rated current                     | 35 A   |
|                                    | Wire connection cross section AWG | AWG 10 |
|                                    | Rated current                     | 50 A   |
|                                    | Wire connection cross section AWG | AWG 8  |
|                                    | Rated current                     | 70 A   |
| Rated current power circuit (cUR)  | Wire connection cross section AWG | AWG 6  |
|                                    | Rated current                     | 80 A   |
|                                    | Wire connection cross section AWG | AWG 14 |
|                                    | Rated current                     | 15 A   |
|                                    | Wire connection cross section AWG | AWG 12 |
|                                    | Rated current                     | 25 A   |
|                                    | Wire connection cross section AWG | AWG 10 |
|                                    | Rated current                     | 29 A   |
| Rated current power circuit (cUR)  | Wire connection cross section AWG | AWG 8  |
|                                    | Rated current                     | 33 A   |
|                                    | Wire connection cross section AWG | AWG 6  |
|                                    | Rated current                     | 35 A   |
| Rated current signal circuit (UR)  | Wire connection cross section AWG | AWG 14 |
|                                    | Rated current                     | 16 A   |
| Rated current signal circuit (cUR) | Wire connection cross section AWG | AWG 14 |
|                                    | Rated current                     | 12 A   |

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## Technical data

## Version

|   |                     |   |                    |
|---|---------------------|---|--------------------|
| BG  | 6                   | Blade size, slotted (screw connection)  | 1.0 x 5.5 mm       |
| Clamping screw  | M 6                 | Conductor cross-section, max.   | 16 mm <sup>2</sup> |
| Conductor cross-section, min.   | 1.5 mm <sup>2</sup> | Material  | Copper alloy       |
| Max. torque for main contact  | 3 Nm                | Min. torque for main contact  | 1.5 Nm             |
| Size  | 6                   | Stripping length, rated connection  | 15 mm              |
| Surface finish  | Silver passivated   | Type of connection  | Screw connection   |
| Volume resistance   | ≤1 mΩ               | Wire connection cross section AWG, max.   | AWG 6              |
| Wire connection cross section AWG, min.   | AWG 16              | Wire connection cross section, finely stranded, max.                                    | 16 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. | 16 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.   | 16 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    |
| 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 |             |             |

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

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|                     |                          |
|---------------------|--------------------------|
| 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@419b74bb de.myview.objectmodel.impl.BlockImpl@307554af<br>de.myview.objectmodel.impl.BlockImpl@60019a28 de.myview.objectmodel.impl.BlockImpl@6599ea67<br>de.myview.objectmodel.impl.BlockImpl@7fbd64c3 de.myview.objectmodel.impl.BlockImpl@657787b7<br>de.myview.objectmodel.impl.BlockImpl@9cb91eb de.myview.objectmodel.impl.BlockImpl@232b9867<br>de.myview.objectmodel.impl.BlockImpl@37a46bbd de.myview.objectmodel.impl.BlockImpl@6eb708c1<br>de.myview.objectmodel.impl.BlockImpl@3b269835 de.myview.objectmodel.impl.BlockImpl@4431d796 |

## Approvals

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate No. (cURus) | E310075    |

## Downloads

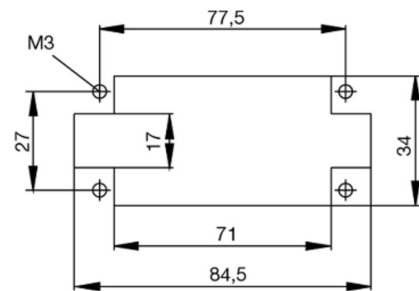
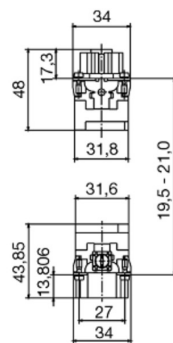
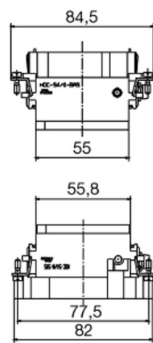
|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Manufacturer's declaration</a>                             |
| Engineering Data                            | <a href="#">CAD data – STEP</a>  |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                               |
| Brochures                                   | <a href="#">FL FIELDWIRING EN</a><br><a href="#">FL FIELDWIRING EN</a> |

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## Drawings



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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDIS 0.6X3.5X100           | Version                  |
| Order No.  | <a href="#">9008390000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056354              |                          |
| Qty.       | 1 pc(s).                   |                          |
| Type       | SDIS 0.8X4.0X100           | Version                  |
| Order No.  | <a href="#">9008400000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056361              |                          |
| Qty.       | 1 pc(s).                   |                          |

**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDS 0.6X3.5X100            | Version                  |
| Order No.  | <a href="#">9008330000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056286              |                          |
| Qty.       | 1 pc(s).                   |                          |
| Type       | SDS 0.8X4.0X100            | Version                  |
| Order No.  | <a href="#">9008340000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056293              |                          |
| Qty.       | 1 pc(s).                   |                          |

# 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.