

**HDC S6 6 BAS****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. An axial screw can be used to secure the wire.  
Axial screw connection TOP connection

**General ordering data**

|            |  |
|------------|--|
| Version    | HDC insert, Female, 690 V, 100 A, Number of poles: 12, Axial screw connection, Size: 8 |
| Order No.  | <a href="#">1790020000</a>   |
| Type       | HDC S6 6 BAS   |
| GTIN (EAN) | 4032248212088  |
| Qty.       | 1 pc(s).   |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 111 mm  | Depth (inches)  | 4.37 inch  |
| Height     | 50.8 mm | Height (inches) | 2 inch     |
| Width      | 34 mm   | Width (inches)  | 1.339 inch |
| Net weight | 300 g   |                 |            |

## Temperatures

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

## Dimensions

|                  |         |                   |        |
|------------------|---------|-------------------|--------|
| Height of socket | 50.8 mm | Total length base | 111 mm |
| Width            | 34 mm   |                   |        |

## General data

|                                      |             |                              |   |
|--------------------------------------|-------------|------------------------------|---|
| BG                                   | 8           | Colour                       | beige   |
| Free from halogens                   |             | Insulating material          | PC glass-fibre reinforced (UL-listed and railway-certified) |
|                                      | true        |                              |   |
| 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                      | 12          | Number of power contacts     | 6   |
| Number of signal contacts            | 6           | Plugging cycles, silver      | ≥ 500   |
| Pollution severity                   | 3           | Rated current (DIN EN 61984) | 100 A   |
| Rated impulse voltage (DIN EN 61984) | 8 kV        | Rated voltage (DIN EN 61984) | 690 V   |
| Rated voltage according to UL/CSA    | 600 V AC/DC | Series                       | MixMate   |
| Size                                 | 8           | Surface finish               | Silver passivated   |
| Type                                 | Female      | Type of connection           | Axial screw connection                                      |
| UL 94 flammability rating            | V-0         | Volume resistance            | ≤1 mΩ   |

## Connection data PE

|                                       |                  |                                       |                    |
|---------------------------------------|------------------|---------------------------------------|--------------------|
| Connection type PE                    | Screw connection | Rated cross-section                   | 35 mm <sup>2</sup> |
| Stripping length PE connection        | 8 mm             | Tightening torque, max. PE connection | 8 Nm               |
| Tightening torque, min. PE connection | 6 Nm             | Wire cross section, AWG (PE), max.    | AWG 2              |
| Wire cross section, AWG (PE), min.    | AWG 6            |                                       |                    |

## Power contact

|   |                        |   |                    |
|---|------------------------|---|--------------------|
| Clamping range, power contact, max.         | 35 mm <sup>2</sup>     | Clamping range, power contact, min.                 | 16 mm <sup>2</sup> |
| Hexagon socket                              | 4 mm                   | Number of poles, performance contact                | 6                  |
| Rated current (DIN EN 61984), power contact | 100 A                  | Rated impulse voltage (DIN EN 61984), power contact | 8 kV               |
| Rated voltage (DIN EN 61984), power contact | 690 V                  | Stripping length, performance contact               | 13 mm              |
| Tightening torque, power contact, max.      | 8 Nm                   | Tightening torque, power contact, min.              | 6 Nm               |
| Type of connection, power contact           | Axial screw connection |   |                    |

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## Signal contact

|  |                     |  |                     |
|--|---------------------|--|---------------------|
| AF size                                      | SD 0.6 x 3.5        | Clamping range, signal contact, max.         | 2.5 mm <sup>2</sup> |
| Clamping range, signal contact, min.         | 0.5 mm <sup>2</sup> | Number of poles, signal                      | 6                   |
| Rated current (DIN EN 61984), signal         | 16 A                | Rated impulse voltage (DIN EN 61984), signal | 6 kV                |
| Rated voltage (DIN EN 61984), signal contact | 400 V               | Stripping length, signal                     | 12 mm               |
| Tightening torque, signal contact, max.      | 0.8 Nm              | Tightening torque, signal contact, min.      | 0.4 Nm              |
| Type of connection, signal                   | Screw connection    |  |                     |

## Version

|  |                        |  |                    |
|--|------------------------|--|--------------------|
| BG   | 8                      | Clamping screw                                       | M 7 x 0.75 mm      |
| Conductor cross-section, max.                        | 35 mm <sup>2</sup>     | Conductor cross-section, min.                        | 16 mm <sup>2</sup> |
| Material   | Copper alloy           | Size   | 8                  |
| Stripping length, rated connection                   | 13 mm                  | Surface finish                                       | Silver passivated  |
| Type of connection                                   | Axial screw connection | Volume resistance                                    | ≤1 mΩ              |
| Wire connection cross section AWG, max.              | AWG 2                  | Wire connection cross section AWG, min.              | AWG 6              |
| Wire connection cross section, finely stranded, max. | 35 mm <sup>2</sup>     | Wire connection cross section, finely stranded, min. | 16 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 |

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

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|                     |                          |
|---------------------|--------------------------|
| 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   |
| SCIP                | d447edfa-0214-4f34-b5ba-82eae491b46a   |
| Chemical resistance | de.myview.objectmodel.impl.BlockImpl@72b0c520 de.myview.objectmodel.impl.BlockImpl@13c3abd0<br>de.myview.objectmodel.impl.BlockImpl@7720139a de.myview.objectmodel.impl.BlockImpl@1a10119b<br>de.myview.objectmodel.impl.BlockImpl@6e7d5e3c de.myview.objectmodel.impl.BlockImpl@606ee508<br>de.myview.objectmodel.impl.BlockImpl@17a5865c de.myview.objectmodel.impl.BlockImpl@d23c1fa<br>de.myview.objectmodel.impl.BlockImpl@92be2dc de.myview.objectmodel.impl.BlockImpl@1efa0054<br>de.myview.objectmodel.impl.BlockImpl@25d6e2b1 de.myview.objectmodel.impl.BlockImpl@3669dbe0 |

## Approvals

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

## Downloads

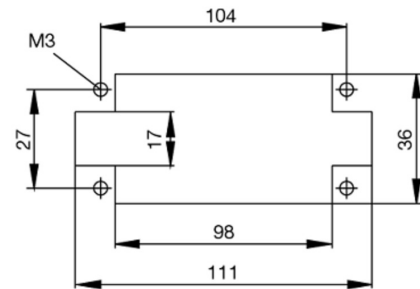
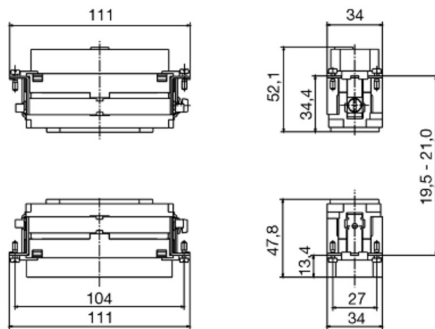
|                  |  |
|------------------|--|
| Engineering Data | <a href="#">CAD data – STEP</a>  |
| Engineering Data | <a href="#">Zuken E3.S</a>   |
| Catalogues       | <a href="#">Catalogues in PDF-format</a>                               |
| Brochures        | <a href="#">FL FIELDWIRING EN</a><br><a href="#">FL FIELDWIRING EN</a> |

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## Drawings



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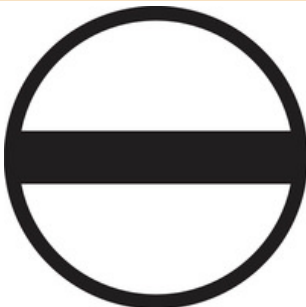
Germany

[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).                   |                          |

**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).                   |                          |

# 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.