

HDC S6 12 BAS**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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, 630 V, 48 A, Number of poles: 18, Axial screw connection, Size: 6 |
| Order No. | 1790010000 |
| Type | HDC S6 12 BAS |
| GTIN (EAN) | 4032248212071 |
| Qty. | 1 pc(s). |

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Technical data

Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Depth | 84.5 mm | Depth (inches) | 3.327 inch |
| Height | 47.3 mm | Height (inches) | 1.862 inch |
| Width | 34 mm | Width (inches) | 1.339 inch |
| Net weight | 146.3 g | | |

Temperatures

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

Dimensions

| | | | |
|------------------|---------|-------------------|---------|
| Height of socket | 47.3 mm | Total length base | 84.5 mm |
| Width | 34 mm | | |

General data

| | | | |
|--------------------------------------|-------------|------------------------------|---|
| BG | 6 | Colour | beige |
| Free from halogens | true | Insulating material | PC glass-fibre reinforced (UL-listed and railway-certified) |
| Insulating material group | IIIa | Insulation strength | 10 ¹⁰ Ω |
| Low smoke acc. DIN EN 45545-2 | Yes | Material | Copper alloy |
| Number of poles | 18 | Number of power contacts | 6 |
| Number of signal contacts | 12 | Plugging cycles, silver | ≥ 500 |
| Pollution severity | 3 | Rated current (DIN EN 61984) | 48 A |
| Rated impulse voltage (DIN EN 61984) | 8 kV | Rated voltage (DIN EN 61984) | 630 V |
| Rated voltage according to UL/CSA | 600 V AC/DC | Series | MixMate |
| Size | 6 | Surface finish | Silver passivated |
| Type | Female | Type of connection | Axial screw connection |
| UL 94 flammability rating | V-0 | Volume resistance | ≤2 mΩ |

Connection data PE

| | | | |
|---------------------------------------|--------------|---------------------------------------|--------------------|
| Blade size, slotted (PE connection) | SD 0.8 x 4.0 | Connection type PE | Screw connection |
| Fixing screw | M 5 | Rated cross-section | 10 mm ² |
| Stripping length PE connection | 8 mm | Tightening torque, max. PE connection | 2.5 Nm |
| Tightening torque, min. PE connection | 2 Nm | Wire cross section, AWG (PE), max. | AWG 8 |
| Wire cross section, AWG (PE), min. | AWG 14 | | |

Power contact

| | | | |
|---|------------------------|---|---------------------|
| Clamping range, power contact, max. | 10 mm ² | Clamping range, power contact, min. | 2.5 mm ² |
| Hexagon socket | 2 mm | Number of poles, performance contact | 6 |
| Rated current (DIN EN 61984), power contact | 48 A | Rated impulse voltage (DIN EN 61984), power contact | 8 kV |
| Rated voltage (DIN EN 61984), power contact | 690 V | Stripping length, performance contact | 8 mm |
| Tightening torque, max. | 0.9 Nm | Tightening torque, min. | 0.45 Nm |
| Tightening torque, power contact, max. | 1.7 Nm | Tightening torque, power contact, min. | 1.1 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 ² |
| Clamping range, signal contact, min. | 0.5 mm ² | Number of poles, signal | 12 |
| 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, max. | 0.9 Nm | Tightening torque, min. | 0.45 Nm |
| Tightening torque, signal contact, max. | 0.8 Nm | Tightening torque, signal contact, min. | 0.4 Nm |
| Type of connection, signal | Screw connection | | |

Version

| | | | |
|---|------------------------|---|---------------------|
| BG | 6 | Clamping screw | M 8 x 0.75 mm |
| Conductor cross-section, max. | 10 mm ² | Conductor cross-section, min. | 2.5 mm ² |
| Material | Copper alloy | Size | 6 |
| Stripping length, rated connection | 8 mm | Surface finish | Silver passivated |
| Type of connection | Axial screw connection | Volume resistance | ≤2 mΩ |
| Wire connection cross section AWG, max. | AWG 8 | Wire connection cross section AWG, min. | AWG 14 |
| Wire connection cross section, finely stranded, max. | 10 mm ² | Wire connection cross section, finely stranded, min. | 2.5 mm ² |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 10 mm ² | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 2.5 mm ² |
| Wire cross-section, solid, max. | 10 mm ² | Wire cross-section, solid, min. | 2.5 mm ² |

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 |

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|---------------------|--------------------------|
| 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 |
| SCIP | c4c4c9fc-7957-49de-b5fd-516c2623a8c3 |
| Chemical resistance | de.myview.objectmodel.impl.BlockImpl@7df5c5ab de.myview.objectmodel.impl.BlockImpl@451666b1 de.myview.objectmodel.impl.BlockImpl@4f693459 de.myview.objectmodel.impl.BlockImpl@264315fd de.myview.objectmodel.impl.BlockImpl@75484403 de.myview.objectmodel.impl.BlockImpl@39d87f5 de.myview.objectmodel.impl.BlockImpl@550a023 de.myview.objectmodel.impl.BlockImpl@3b02a189 de.myview.objectmodel.impl.BlockImpl@c5d92b6 de.myview.objectmodel.impl.BlockImpl@63901ee7 de.myview.objectmodel.impl.BlockImpl@63c1fb0e de.myview.objectmodel.impl.BlockImpl@4de11016 |

Approvals

Approvals



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

Downloads

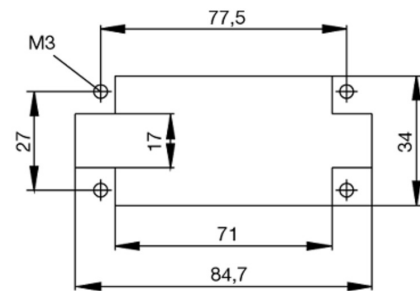
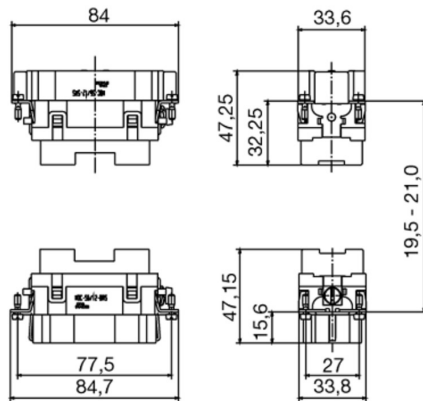
| | |
|------------------|--|
| Engineering Data | CAD data – STEP |
| Engineering Data | Zuken E3.S |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL FIELDWIRING EN FL FIELDWIRING EN |

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Drawings



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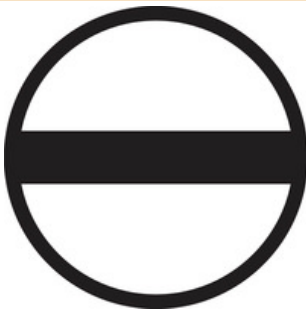
Germany

www.weidmueller.com**Accessories****Socket wrench sets**

Allen key made from fully hardened, high-alloy chromium-vanadium- steel, acc. to DIN ISO 2936 L (DIN 911), high-quality refined surface.

General ordering data

| | | |
|------------|----------------------------|---------------|
| Type | SK WSD-S 1,5-10,0 | Version |
| Order No. | 9008850000 | Mounting tool |
| GTIN (EAN) | 4032248266609 | |
| 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. | 9008330000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056286 | |
| Qty. | 1 pc(s). | |

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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. | 9008390000 | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248056354 | |
| 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 |
|--------------------|---|---|--|
| M 2.5 | Signal contacts | | |
| | 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 |
| M 2.9 x 0.5 | Fastening screws | | |
| | 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 |
| M 3 | Contact screws | | |
| | 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 |
| | Signal contacts: | | |
| | 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 |
| | PE connection via female contact | | |
| | 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 |
| | PE terminal | | |
| | 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 |
| | Fastening screws | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZ0 |
| | Guide pin | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZ0 |
| | Guide bush | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZ0 |
| | Coding pins | 0.5 - 0.55 | SD 0.6 x 3.5 mm or PZ0 |
| M 4 | Contact screws | | |
| | HSB | 1.2 - 1.5 | SD 0.6 x 3.5 or 0.8 x 4 mm or PZ1 |
| | PE connection via male contact | | |
| | 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 |
| | PE terminal | | |
| | 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 |
| M 5 | PE terminal | | |
| | 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 |
| M 6 | Power contacts | | |
| | S 4/0 (Screw connection) | 1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²) | SD 0.8 x 4 mm |
| | S 4/2 | 1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²) | SD 0.8 x 4 mm |
| | S 4/8 | 1.2 (1.5 mm ²) / 2 (2.5 mm ²) / 3 (4-16 mm ²) | SD 0.8 x 4 mm |
| M 7 x 0.75 | Power contacts | | |
| | S 4 | 1.1 - 1.7 | SW 2 |
| | S 6/6 (+ PE) | 6 - 8 | SW 4 |
| M 8 x 0.75 | Power contacts | | |
| | S 6/12 | 1.1 - 1.7 | SW 2 |
| | S 8/0 (+ PE) | 6 (10-16 mm ²) - 7 (25 mm ²) | SW 4 |
| M10 x 1 | Power contacts | | |
| | 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.