

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

Do not use product for new developments

Product image













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Similar to illustration

The new benchmark for component density: the virtual 0.875mm pitch - for 1mm² I/O connections

The only 4-row double level male connectors for standard IP20 sensor interfaces with 3.5 pitch

The S2L in a double pack - a standard has surpassed itself:

- Each 3.5mm wide, 4 I/O contacts for 1mm² connection cross-section
- Force-fit enclosure geometry guarantees maximum stability
- Solder flange eliminates the need for a screw fastening Less is more - basic advantages for your applications:
- 75% space savings on the circuit board
- Solder flange reduces process costs
- Less mechanical load on the soldering points
- More space for displays in the front panel, for example

A "small" contribution to greater competitiveness: additional features in the same installation space or a more compact device with the same range of functions.

General ordering data

| Version | PCB plug-in connector, male header, Solder flange, THT/THR solder connection, 3.50 mm, Number of poles: 8, 90°, Solder pin length (I): 3.2 mm, tinned, black, Box |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Order No. | <u>1028370000</u> |
| Туре | S2LD-THR 3.50/08/90LF 3.2SN BK BX |
| GTIN (EAN) | 4032248756889 |
| Qty. | 50 items |
| Product data | IEC: 200 V / 10 A UL: 150 V / 7 A |
| Packaging | Box |
| Delivery status | This article will no longer be available in the future. |
| Available until | 2028-12-31T00:00:00+01:00 |
| Alternative product | S2CD-THR 3.50/08/90LF 3.2SN BK BX |
| | |

Catalogue status / Drawings





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Technical data

Approvals

Approvals



| ROHS | Conform |
|-------------------------|-------------------|
| UL File Number Search | <u>UL Website</u> |
| Certificate No. (cURus) | E60693 |

Dimensions and weights

| Depth | 24.4 mm | Depth (inches) | 0.9606 inch |
|--------------------------|-------------|-----------------|-------------|
| Height | 35 mm | Height (inches) | 1.378 inch |
| Height of lowest version | 31.8 mm | Width | 14 mm |
| Width (inches) | 0.5512 inch | Net weight | 6.11 g |

Environmental Product Compliance

| RoHS Compliance Status | Compliant without exemption |
|------------------------|-----------------------------|
| REACH SVHC | No SVHC above 0.1 wt% |

System specifications

| Product family | OMNIMATE Signal - series B2L/S2L 3.50 - 2-row | Type of connection | Board connection |
|----------------------------------------------|-----------------------------------------------------|---------------------------------------------------|---------------------------------|
| Mounting onto the PCB | THT/THR solder connection | Pitch in mm (P) | 3.50 mm |
| Pitch in inches (P) | 0.138 " | Outgoing elbow | 90° |
| Number of poles | 8 | Number of solder pins per pole | 1 |
| Solder pin length (I) | 3.2 mm | Solder pin dimensions | d = 1.0 mm, Octagonal |
| Solder eyelet hole diameter (D) | 1.3 mm | Solder eyelet hole diameter tolerance (D)+ 0,1 mm | |
| Outside diameter of solder pad | 2.1 mm | Template aperture diameter | 1.9 mm |
| L1 in mm | 3.50 mm | L1 in inches | 0.138 " |
| Number of rows | 2 | Pin series quantity | 2 |
| Touch-safe protection acc. to DIN VDE 57 106 | finger-safe unplugged/ back-of-hand-safe plugged | Touch-safe protection acc. to DIN VDE 0470 | IP20 plugged/ IP10 unplugged |
| Can be coded | Yes | Plugging force/pole, max. | 3 N |

Material data

| Insulating material | LCP GF | Colour | black |
|---------------------------------------|---------------------|---------------------------------------|---------------------|
| Colour chart (similar) | RAL 9011 | Insulating material group | IIIb |
| Comparative Tracking Index (CTI) | ≥ 175 | Moisture Level (MSL) | 1 |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Contact surface | tinned | Layer structure of solder connection | 23 μm Ni / 57 μm Sn |
| | | | glossy |
| Layer structure of plug contact | 25 µm Sn / 13 µm Ni | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -50 °C |
| Operating temperature, max. | 100 °C | Temperature range, installation, min. | -30 °C |
| Temperature range, installation, max. | 100 °C | | |

Rated data acc. to IEC

| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 10 A |
|-----------------------------------------------|------------------------|-----------------------------------------------|------|
| Rated current, max. number of poles (Tu=20°C) | 10 A | Rated current, min. number of poles (Tu=40°C) | 9 A |

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Technical data

| Rated current, max. number of poles 8.5 A (Tu=40°C) | Rated voltage for surge voltage class / 200 V pollution degree II/2 |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Rated voltage for surge voltage class / 160 V pollution degree III/2 | Rated voltage for surge voltage class / 100 V pollution degree III/3 |
| Rated impulse voltage for surge voltage 2.5 kV class/ pollution degree II/2 | Rated impulse voltage for surge voltage 2.5 kV class/ pollution degree III/2 |
| Rated impulse voltage for surge voltage 1.5 kV class/ contamination degree III/3 | |

Rated data acc. to CSA

| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1488444 |
|-----------------------------------|------------------------------------------------------------------------------|-----------------------------------|----------------|
| Rated voltage (Use group B / CSA) | 50 V | Rated voltage (Use group C / CSA) | 50 V |
| Rated voltage (Use group D / CSA) | 150 V | Rated current (Use group B / CSA) | 5 A |
| Rated current (Use group C / CSA) | 9.5 A | Rated current (Use group D / CSA) | 9.5 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Rated data acc. to UL 1059

| Institute (cURus) | CURUS | Certificate No. (cURus) | E60693 |
|---------------------------------------|----------------------------------------------|---------------------------------------|--------|
| Rated voltage (Use group B / UL 1059) | 150 V | Rated current (Use group B / UL 1059) | 7 A |
| Reference to approval values | Specifications are maximum values, details - | | |

Packing

| Packaging | Box | VPE length | 196.00 mm |
|-----------|-----------|------------|-----------|
| VPE width | 134.00 mm | VPE height | 38.00 mm |

Important note

| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request. |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Natas | a Additional variante en manuest |

Notes

- Additional variants on request
- · Gold-plated contact surfaces on request
- · Spacing between rows: see hole layout
- · Rated current related to rated cross-section & min. No. of poles.
- P on drawing = pitch
- · Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- \bullet Long term storage of the product with average temperature of 50 $^{\circ}\text{C}$ and maximum humidity 70%, 36 months

Classifications

| ETIM 6.0 | EC002637 | ETIM 7.0 | EC002637 |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002637 | ETIM 9.0 | EC002637 |
| ETIM 10.0 | EC002637 | ECLASS 9.0 | 27-44-04-02 |
| ECLASS 9.1 | 27-44-04-02 | ECLASS 10.0 | 27-44-04-02 |
| ECLASS 11.0 | 27-46-02-01 | ECLASS 12.0 | 27-46-02-01 |
| ECLASS 13.0 | 27-46-02-01 | ECLASS 14.0 | 27-46-02-01 |
| ECLASS 15.0 | 27-46-02-01 | | |
| | | | |

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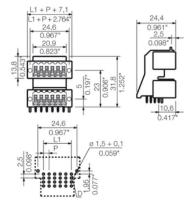
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Drawings

Dimensional drawing





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Accessories

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery. Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

| connector, Accessories, Coding element, black, Number |
|--------------------------------------------------------|
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| connector, Accessories, Coding element, orange, Number |
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