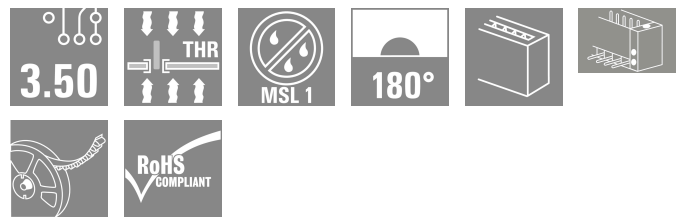
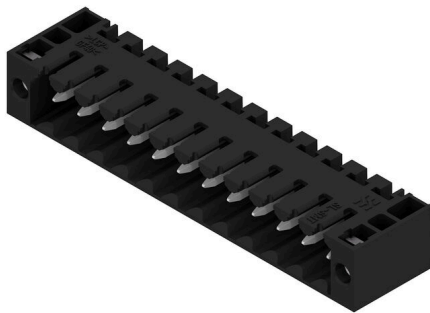


SL-SMT 3.50/12/180F 1.5SN BK RL

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Product image



High-temperature-resistant male header, 3.50 mm pitch.

- Plugging direction parallel (90°), straight 180° or angled (135°) to PCB
- Housing variants: closed side (G), screw flange (F), solder flange (LF) or snap-on solder flange (RF)
- Optimised for the SMT process
- Pin length 3.2 mm universal for all soldering methods
- Pin length 1.5 mm optimised for reflow soldering methods
- Packed either in a box (BX) or tape-on-reel (RL)
- Male header can be coded

General ordering data

| | |
|--------------|---|
| Version | PCB plug-in connector, male header, Flange, THT/THR solder connection, 3.50 mm, Number of poles: 12, 180°, Solder pin length (l): 1.5 mm, tinned, black, Tape |
| Order No. | 1896490000 |
| Type | SL-SMT 3.50/12/180F 1.5SN BK RL |
| GTIN (EAN) | 4032248511297 |
| Qty. | 230 items |
| Product data | IEC: 320 V / 15 A UL: 300 V / 10 A |
| Packaging | Tape |

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Technical data

Approvals

Approvals



| | |
|-----------------------|----------------------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (UR) | E60693 |

Dimensions and weights

| | | | |
|--------------------------|-------------|-----------------|-------------|
| Depth | 7.5 mm | Depth (inches) | 0.2953 inch |
| Height | 12.6 mm | Height (inches) | 0.4961 inch |
| Height of lowest version | 11.1 mm | Width | 49 mm |
| Width (inches) | 1.9291 inch | Net weight | 6.41 g |

Environmental Product Compliance

| | | | |
|--------------------------|-----------------------------|------------------|--|
| RoHS Compliance Status | Compliant without exemption | | |
| REACH SVHC | No SVHC above 0.1 wt% | | |
| Product Carbon Footprint | Cradle to gate | 0,052 kg CO2 eq. | |

System specifications

| | | | |
|--|--|---------------------|-------------|
| Product family | OMNIMATE Signal - series BL/SL 3.50 | | |
| 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 | 180° | | |
| Number of poles | 12 | | |
| Number of solder pins per pole | 1 | | |
| Solder pin length (l) | 1.5 mm | | |
| Solder pin length tolerance | 0 / -0.3 mm | | |
| Solder pin dimensions | d = 1.2 mm, Octagonal | | |
| Solder pin dimensions = d tolerance | 0 / -0,03 mm | | |
| Solder eyelet hole diameter (D) | 1.4 mm | | |
| Solder eyelet hole diameter tolerance (D) | + 0,1 mm | | |
| Outside diameter of solder pad | 2.3 mm | | |
| Template aperture diameter | 2.1 mm | | |
| L1 in mm | 38,50 mm | | |
| L1 in inches | 1.516 " | | |
| Number of rows | 1 | | |
| Pin series quantity | 1 | | |
| Touch-safe protection acc. to DIN VDE 57 106 | finger-safe plugged/ back-of-hand-safe unplugged | | |
| Touch-safe protection acc. to DIN VDE 0470 | IP20 plugged/ IP10 unplugged | | |
| Protection degree | IP10 | | |
| Volume resistance | ≤5 mΩ | | |
| Can be coded | Yes | | |
| Plugging cycles | 25 | | |
| Plugging force/pole, max. | 6 N | | |
| Pulling force/pole, max. | 6 N | | |
| Tightening torque | Torque type | Mounting screw, PCB | |
| | Usage information | Tightening torque | min. 0.1 Nm |

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| | | | |
|-------------------|-------------|------|--|
| | | max. | 0.15 Nm |
| Recommended screw | Part number | | PTSC KA 2.2X4.5 WN1412 |

Material data

| | | | |
|---------------------------------------|---------------------------|---------------------------------------|---------------------------|
| Insulating material | LCP GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | IIIa |
| 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 | 2...3 µm Ni / 5...7 µm Sn |
| Layer structure of plug contact | 2...3 µm Ni / 5...7 µm Sn | 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) | 15 A |
| Rated current, max. number of poles (Tu=20°C) | 12 A | Rated current, min. number of poles (Tu=40°C) | 13 A |
| Rated current, max. number of poles (Tu=40°C) | 10 A | Rated voltage for surge voltage class / pollution degree II/2 | 320 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 160 V | Rated voltage for surge voltage class / pollution degree III/3 | 160 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 2.5 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV | Short-time withstand current resistance | 3 x 1s with 100 A |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1176845 |
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group D / CSA) | 300 V |
| Rated current (Use group B / CSA) | 10 A | Rated current (Use group D / CSA) | 10 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (UR) | UR | Certificate No. (UR) | E60693 |
| Rated voltage (Use group B / UL 1059) | 300 V | Rated voltage (Use group D / UL 1059) | 300 V |
| Rated current (Use group B / UL 1059) | 10 A | Rated current (Use group D / UL 1059) | 10 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------------------------|--------------------|-------------------------------|-----------|
| ESD Level packaging | static dissipative | Packaging | Tape |
| VPE length | 365.00 mm | VPE width | 341.00 mm |
| VPE height | 103.00 mm | Tape depth (T2) | 16.50 mm |
| Tape width (W) | 88 mm | Tape pocket depth (K0) | 16.00 mm |
| Tape pocket height (A0) | 7.80 mm | Tape pocket width (B0) | 71.80 mm |
| Tape pocket separation (P1) | 16.00 mm | Tape hole separation (E) | 1.75 mm |
| Tape pocket separation (F) | 42.20 mm | Tape reel diameter Ø (A) | 330 mm |
| Surface resistance | Rs = 109 - 1012 Ω | Width Pick & Place Pad (WPPP) | 6.8 mm |

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| | | | |
|---|----------|---|--------|
| Length Pick & Place Pad (LPPP) | 12.65 mm | Diameter of the withdrawal surface (ø Dmax) | 5 mm |
| Protrusion 1 Pick & Place Pad (L01 (PPP)) | 2.7 mm | Protrusion 2 Pick & Place Pad (P02 (PPP)) | 2.5 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.

- Notes**
- Gold-plated contact surfaces on request
 - Rated current related to rated cross-section & min. No. of poles.
 - Diameter of solder eyelet D = 1.4+0.1mm
 - Solder eyelet diameter D = 1.5 + 0.1 mm, from 9 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.
 - For additional mechanical support for male connectors with screw flange (...F), we recommend an additional cable gland with fastening screws (sheet metal screw ISO 1481-ST 2.2x4.5 C or ISO 7049-ST 2.2x4.5 C – see Accessories). Cable gland only permitted before soldering.
 - 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
 - Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002637 | ETIM 9.0 | EC002637 |
| ETIM 10.0 | EC002637 | ECLASS 14.0 | 27-46-02-01 |
| ECLASS 15.0 | 27-46-02-01 | | |

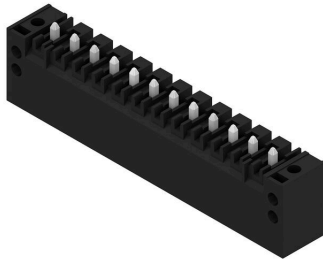
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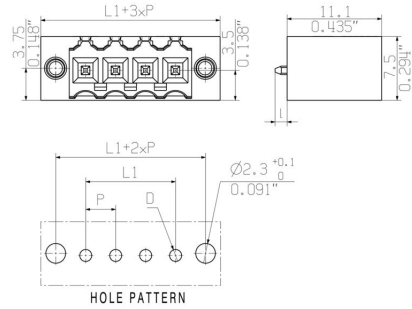
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Drawings

Product image



Dimensional drawing



Dimensional drawing



Dimensional drawing



Example of use

