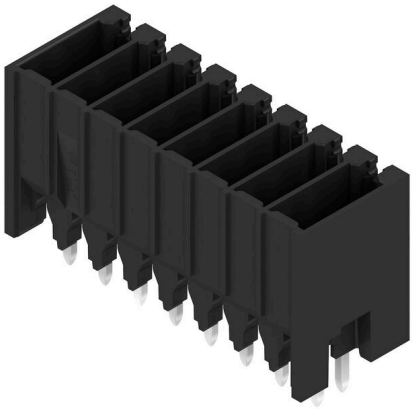
Data sheet

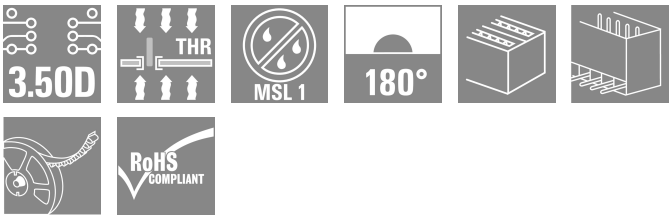
# S2C-SMT 3.50/16/180G 3.5SN BK RL

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

www.weidmueller.com

## Product image






High-temperature-resistant pin header.

- touch-safe
- can be plugged into B2CF 3.50 PUSH IN female plug
- Plug-in direction is perpendicular or parallel to the circuit board (180° / 90°)
- Housing variants: closed (G) and with solder flange (LF)
- Box packaging (BX) or, anti-static, tape-on-reel (RL)
- Suitable for reflow and wave soldering applications
- Pin length of either 1.5 mm or 3.5 mm

### General ordering data

| | |
|---|---|
| Version | PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.50 mm, Number of poles: 16, 180°, Solder pin length (l): 3.5 mm, tinned, black, Tape |
| Order No. | 1358810000 |
| Type | S2C-SMT 3.50/16/180G 3.5SN BK RL |
| GTIN (EAN) | 4050118161649 |
| Qty. | 175 items |
| Product data | IEC: 200 V / 13.4 A<br>UL: 150 V / 9.5 A |
| Packaging | Tape |



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# Data sheet

## S2C-SMT 3.50/16/180G 3.5SN BK RL

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# Technical data

### Approvals

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

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 10.8 mm | Depth (inches) | 0.4252 inch |
| Height | 17.7 mm | Height (inches) | 0.6968 inch |
| Height of lowest version | 14.2 mm | Width | 29.4 mm |
| Width (inches) | 1.1575 inch | Net weight | 4.5 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 B2C/S2C 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 | 180° |
| Number of poles | 16 | Number of solder pins per pole | 1 |
| Solder pin length (l) | 3.5 mm | Solder pin length tolerance | 0 / -0.3 mm |
| Solder pin dimensions | d = 1.0 mm, Octagonal | Solder pin dimensions = d tolerance | +0,01 / -0,03 mm |
| 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 | 24.50 mm | L1 in inches | 0.965 " |
| Number of rows | 1 | 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. | 3.5 N |
| Pulling force/pole, max. | 3.5 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 | Copper alloy |
| Contact surface | tinned | Layer structure of solder connection | 1...3 µm Ni / 2...4 µm Sn matt |
| Layer structure of plug contact | 1...3 µm Ni / 2...4 µm Sn matt | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -50 °C |
| Operating temperature, max. | 120 °C | Temperature range, installation, min. | -40 °C |
| Temperature range, installation, max. | 120 °C | | |



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## Technical data

### Rated data acc. to IEC

| | | | |
|---|---|---|---|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 13.4 A |
| Rated current, min. number of poles (Tu=40°C) | 12 A | Rated voltage for surge voltage class / pollution degree II/2 | 200 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 160 V | Rated voltage for surge voltage class / pollution degree III/3 | 80 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 80 A |

### Rated data acc. to CSA

| | | | |
|---|---|---|---|
| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1121690 |
| Rated voltage (Use group B / CSA) | 150 V | Rated voltage (Use group C / CSA) | 50 V |
| Rated voltage (Use group D / CSA) | 150 V | Rated current (Use group B / CSA) | 9.5 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 voltage (Use group C / UL 1059) | 50 V |
| Rated current (Use group B / UL 1059) | 9.5 A | Rated current (Use group C / UL 1059) | 9.5 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

### Packing

| | | | |
|---|---|---|---|
| ESD Level packaging | static dissipative | Packaging | Tape |
| VPE length | 330.00 mm | VPE width | 330.00 mm |
| VPE height | 49.00 mm | Tape depth (T2) | 19.80 mm |
| Tape width (W) | 44 mm | Tape pocket depth (K0) | 19.30 mm |
| Tape pocket height (A0) | 11.10 mm | Tape pocket width (B0) | 33.30 mm |
| Tape pocket separation (P1) | 20.00 mm | Tape hole separation (E) | 1.75 mm |
| Tape pocket separation (F) | 20.20 mm | Tape reel diameter ⌀ (A) | 330 mm |
| Surface resistance | Rs = 109 - 1012 Ω | Width Pick & Place Pad (WPPP) | 10 mm |
| Length Pick & Place Pad (LPPP) | 15.6 mm | Diameter of the withdrawal surface (ø Dmax) | 9 mm |
| Protrusion 1 Pick & Place Pad (L01 (PPP)) | 7.8 mm | Protrusion 2 Pick & Place Pad (P02 (PPP)) | 7.8 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<br>• Rated current related to rated cross-section & min. No. of poles.<br>• Spacing between rows: see hole layout<br>• P on drawing = pitch<br>• 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. |



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## Technical data

- 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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# Data sheet

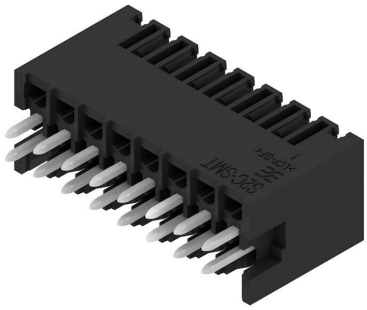
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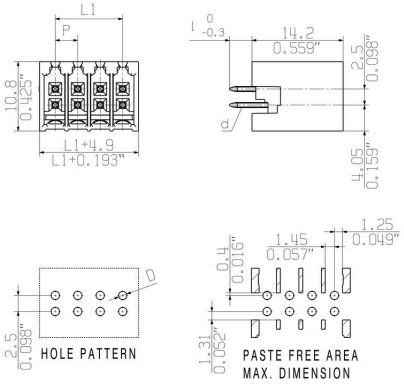
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## Drawings

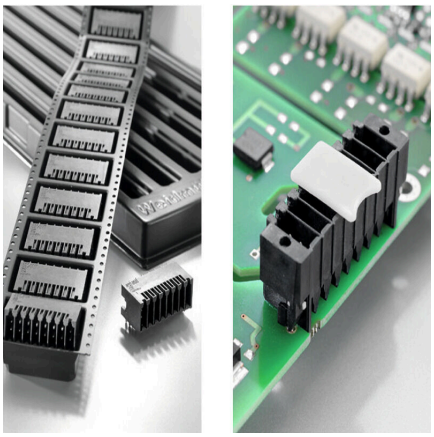
### Product image



### Dimensional drawing




### Product benefits



Optimised for the SMT processSafe board-to-board connection



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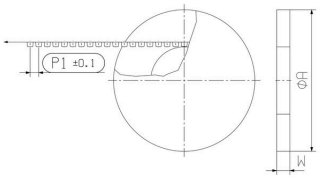
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## Drawings

### Dimensional drawing






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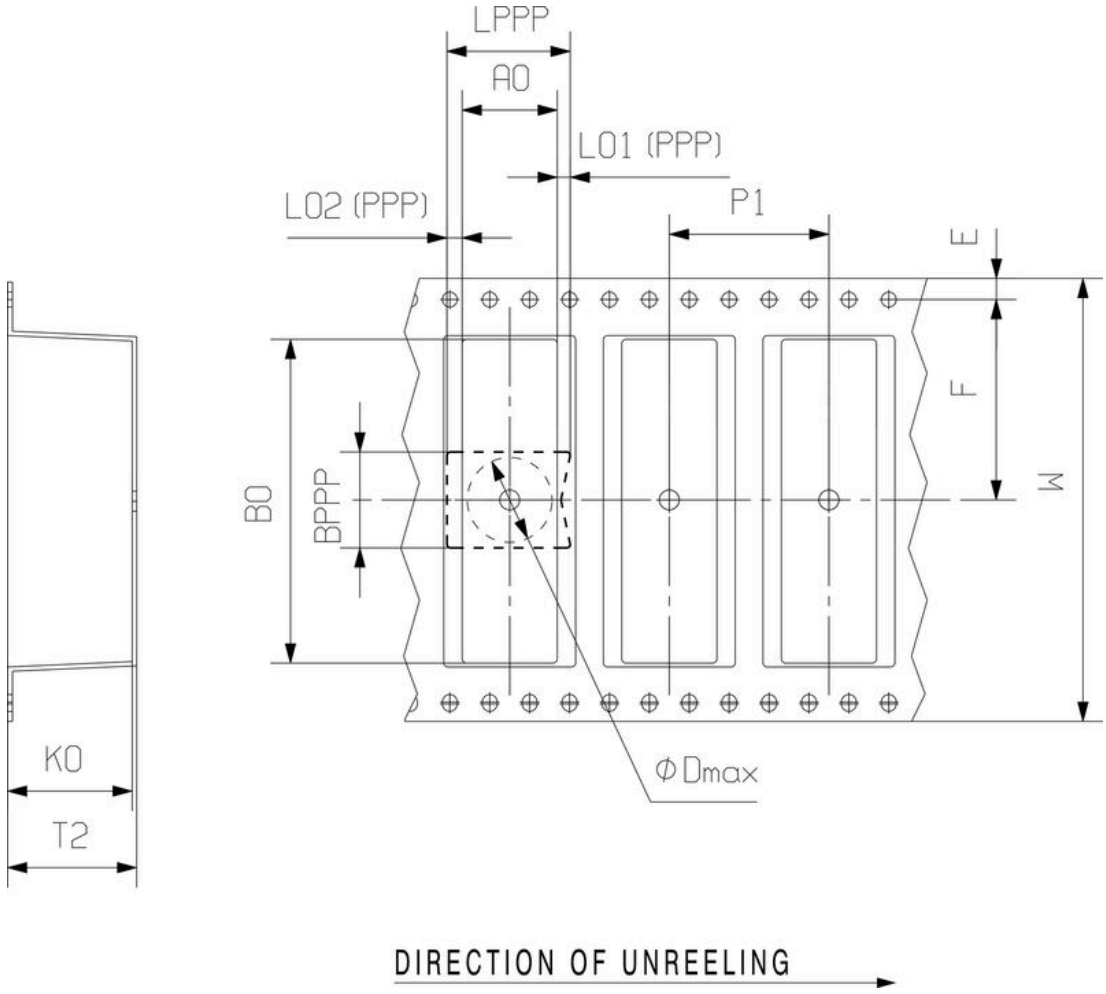
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## Drawings

### 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

| | | |
|---|---|---|
| Type | B2L/S2L 3.50 KO BK BX | Version |
| Order No. | 1849740000 | PCB plug-in connector, Accessories, Coding element, black, Number |
| GTIN (EAN) | 4032248378203 | of poles: 1 |
| Qty. | 100 ST | |
| Type | B2L/S2L 3.50 KO OR BX | Version |
| Order No. | 1849730000 | PCB plug-in connector, Accessories, Coding element, orange, Number |
| GTIN (EAN) | 4032248378197 | of poles: 1 |
| Qty. | 100 ST | |



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