

S2L 3.50/12/180G 3.5SN BK BX

Weidmüller Interface GmbH & Co. KG

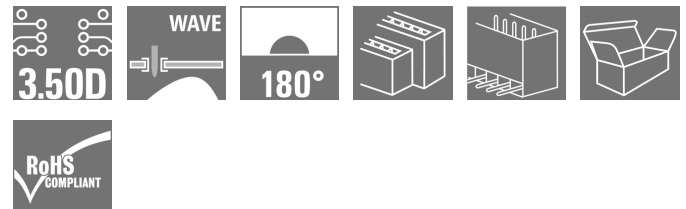
Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image



Similar to illustration

Straight, double-row pin header available in closed-sided or flange version (open-sided pin headers on request). The male headers with a pin length of 3.5mm are designed for wave soldering and are packed in a box. They can be screwed on to the PCB. The male headers provide space for labelling and can be coded.

General ordering data

| | |
|--------------|---|
| Version | PCB plug-in connector, male header, closed side, THT solder connection, 3.50 mm, Number of poles: 12, 180°, Solder pin length (l): 3.5 mm, tinned, black, Box |
| Order No. | 1728980000 |
| Type | S2L 3.50/12/180G 3.5SN BK BX |
| GTIN (EAN) | 4032248040414 |
| Qty. | 78 pc(s). |
| Product data | IEC: 250 V / 10 A UL: 150 V / 10 A |
| Packaging | Box |

Creation date September 16, 2022 10:06:05 AM CEST

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Technical data**Dimensions and weights**

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 10.5 mm | Depth (inches) | 0.413 inch |
| Height | 17.7 mm | Height (inches) | 0.697 inch |
| Height of lowest version | 14.2 mm | Width | 22.4 mm |
| Width (inches) | 0.882 inch | Net weight | 2.27 g |

System specifications

| | | | |
|--|---|--|-----------------------|
| Product family | OMNIMATE Signal - series B2L/S2L 3.50 - 2-row | Type of connection | Board connection |
| Mounting onto the PCB | THT solder connection | Pitch in mm (P) | 3.5 mm |
| Pitch in inches (P) | 0.138 inch | Outgoing elbow | 180° |
| Number of poles | 12 | Number of solder pins per pole | 1 |
| Solder pin length (l) | 3.5 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 |
| L1 in mm | 17.5 mm | L1 in inches | 0.689 inch |
| Number of rows | 1 | Pin series quantity | 2 |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from back-of-hand touch | Touch-safe protection acc. to DIN VDE 0470 | IP 10 |
| Can be coded | Yes | Plugging force/pole, max. | 5 N |
| Pulling force/pole, max. | 4 N | | |

Material data

| | | | |
|---------------------------------------|----------------------------------|---------------------------------------|--------|
| Insulating material | PBT | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | IIIa |
| Comparative Tracking Index (CTI) | ≥ 200 | UL 94 flammability rating | V-0 |
| Contact material | Copper alloy | Contact surface | tinned |
| Layer structure of solder connection | 2...3 µm Ni / 5...7 µm Sn glossy | 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 |
| Rated current, max. number of poles (Tu=40°C) | 8.5 A | Rated voltage for surge voltage class / pollution degree II/2 | 250 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 125 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 77 A |

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Technical data**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1488444

Rated voltage (Use group B / CSA)

150 V

Rated current (Use group B / CSA)

5 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Packing

Packaging

Box

VPE length

58 mm

VPE width

72 mm

VPE height

112 mm

Classifications

ETIM 6.0

EC002637

ETIM 7.0

EC002637

ETIM 8.0

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

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

- 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals

Approvals



ROHS

Conform

UL File Number Search

UL Website

Certificate No. (UR)

E60693

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Technical data

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN PO OMNIMATE EN |

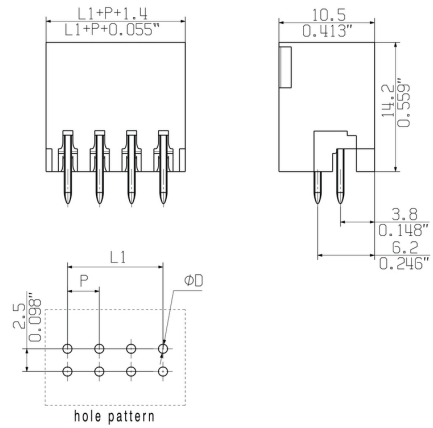
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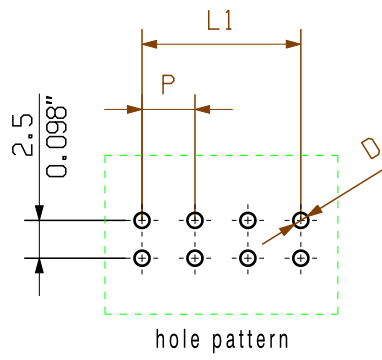
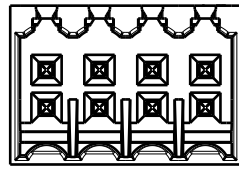
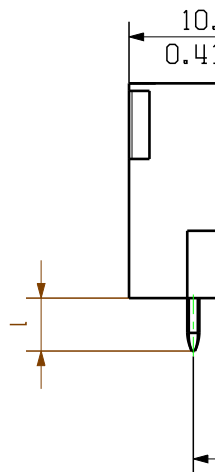
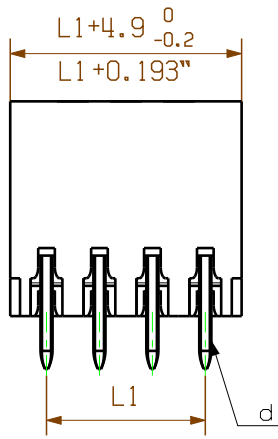
Drawings

Dimensional drawing



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hole pattern

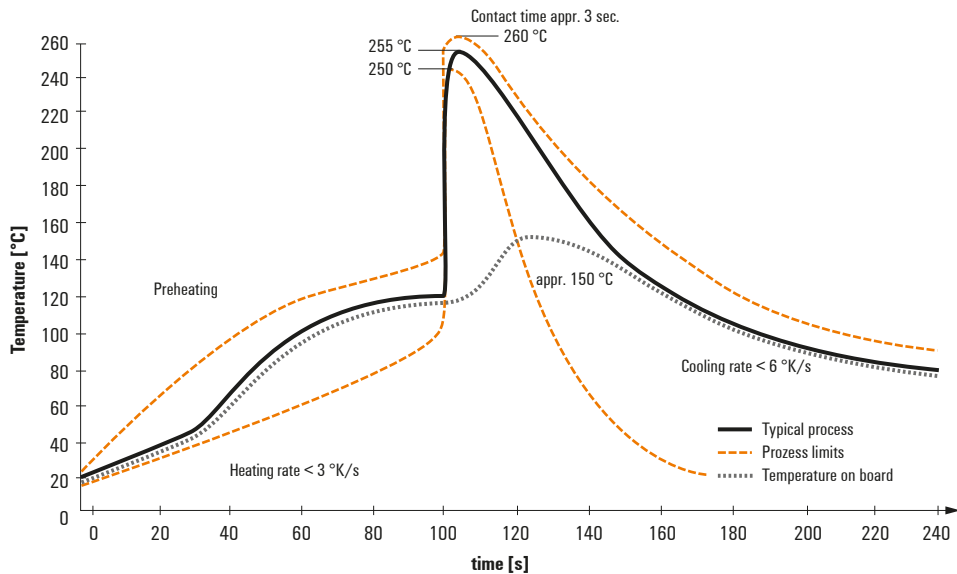
For the mounting of PCBs, it should be noted that the data given in the catalogue relates to the connection elements. The necessary creepage clearance paths must be observed in connection with the respective applicant in accordance with VDE 0113. The current-carrying capacity and pitch tolerance must be determined according to DIN IEC 326 part 1.

Weidmueller connectors are tested to the DIN EN 60900 standard, and are valid for its field of application. Provided that the connectors are used to their intended purpose, all requirements with respect to the occurrence of electrical, mechanical, thermal and corrosive stress will be satisfied.

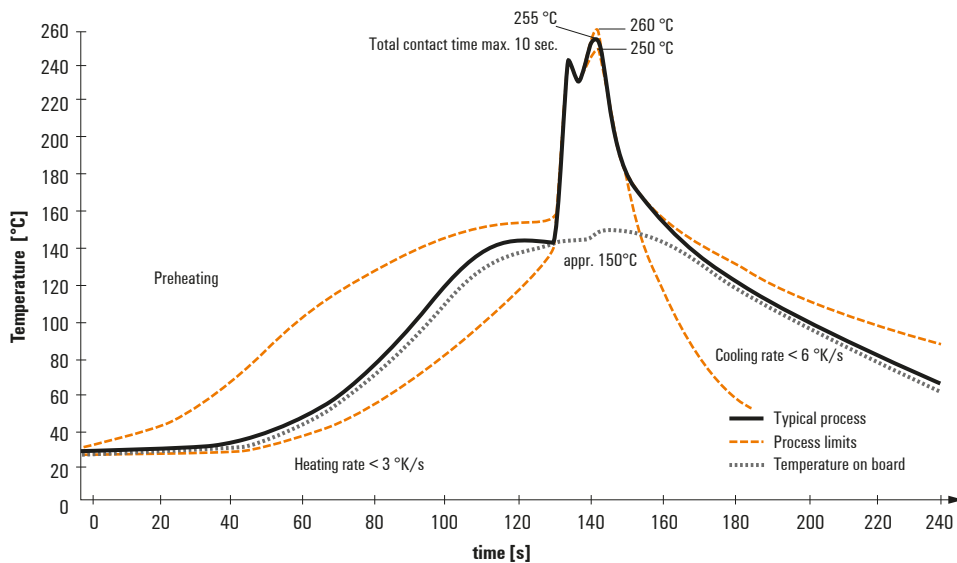
Recommended wave soldering profiles

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Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

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