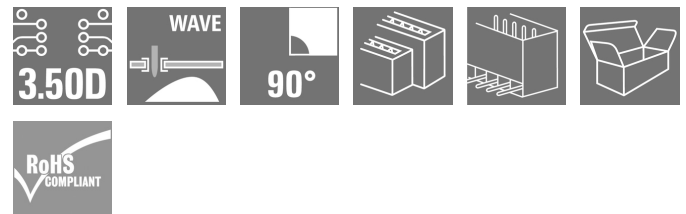


S2L 3.50/04/90G 3.5SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Similar to illustration

Angled, two-tier pin header available as closed-sided or with flange (open-sided pin headers on request). Pin headers with 3.5mm pins are designed for wave soldering and are packaged in a box. They can be screwed on to the PCB. The pin 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: 4, 90°, Solder pin length (l): 3.5 mm, tinned, orange, Box |
| Order No. | 2941920000 |
| Type | S2L 3.50/04/90G 3.5SN OR BX |
| GTIN (EAN) | 4099986712225 |
| Product data | IEC: 160 V / 10 A UL: 150 V / 10 A |
| Packaging | Box |

Creation date July 10, 2025 9:22:35 PM CEST

Catalogue status 04.07.2025 / We reserve the right to make technical changes.

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Technical data**Dimensions and weights**

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 14.2 mm | Depth (inches) | 0.559 inch |
| Height | 14 mm | Height (inches) | 0.551 inch |
| Height of lowest version | 10.5 mm | Width | 8.4 mm |
| Width (inches) | 0.331 inch | Net weight | 1.136 g |

System specifications

| | | | |
|--|---|--|------------------------------|
| Product family | OMNIMATE Signal - series B2L/S2L 3.50 - 2-row | Mounting onto the PCB | THT solder connection |
| Pitch in mm (P) | 3.5 mm | Pitch in inches (P) | 0.138 " |
| Outgoing elbow | 90° | Number of poles | 4 |
| 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 | 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 cycles | 25 |
| Plugging force/pole, max. | 5 N | Pulling force/pole, max. | 4 N |

Material data

| | | | |
|--------------------------------------|----------------------------------|-----------------------------|--------|
| Insulating material | PBT GF | Colour | orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | IIIa |
| Comparative Tracking Index (CTI) | ≥ 200 | 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 glossy | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -50 °C |
| Operating temperature, 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 | 160 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 | 1.5 kV | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 1.5 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 |

Rated data acc. to CSA

| | | | |
|-----------------------------------|-------|-----------------------------------|-----|
| Rated voltage (Use group B / CSA) | 150 V | Rated current (Use group B / CSA) | 5 A |
|-----------------------------------|-------|-----------------------------------|-----|

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|-------|---------------------------------------|------|
| Rated voltage (Use group B / UL 1059) | 150 V | Rated current (Use group B / UL 1059) | 10 A |
|---------------------------------------|-------|---------------------------------------|------|

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Technical data**Packing**

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 352 mm |
| VPE width | 139 mm | VPE height | 26 mm |

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 | | |

Approvals

| | |
|------|---------|
| ROHS | Conform |
|------|---------|

Environmental Product Compliance

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

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 | <ul style="list-style-type: none"> • 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. • Diameter of solder eyelet $D = 1.3 \pm 0.1$ mm • 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 • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

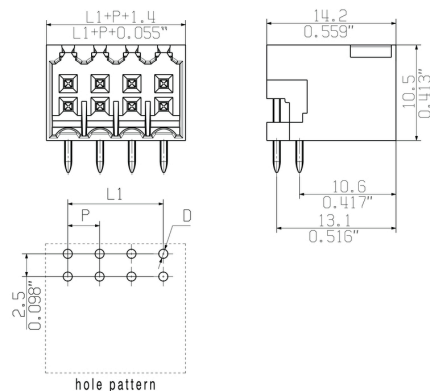
Downloads

| | |
|-------------------------|--|
| Technical Documentation | Customer Drawing Customer Drawing Customer Drawing |
|-------------------------|--|

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Drawings**Dimensional drawing**

Recommended wave soldering profiles

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

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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