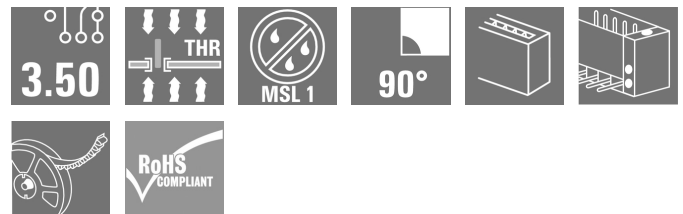


SL-SMT 3.50/10/90F 3.2SN BK RL**Weidmüller Interface GmbH & Co. KG**

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: 10, 90°, Solder pin length (l): 3.2 mm, tinned, black, Tape |
| Order No. | 1041840000 |
| Type | SL-SMT 3.50/10/90F 3.2SN BK RL |
| GTIN (EAN) | 4032248773176 |
| Qty. | 385 pc(s). |
| Product data | IEC: 320 V / 15 A UL: 300 V / 10 A |
| Packaging | Tape |

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 11.1 mm | Depth (inches) | 0.437 inch |
| Height | 10.7 mm | Height (inches) | 0.421 inch |
| Height of lowest version | 7.5 mm | Width | 42 mm |
| Width (inches) | 1.654 inch | Net weight | 4.68 g |

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) | 3.5 mm | | |
| Pitch in inches (P) | 0.138 " | | |
| Outgoing elbow | 90° | | |
| Number of poles | 10 | | |
| Number of solder pins per pole | 1 | | |
| Solder pin length (l) | 3.2 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 | 31.5 mm | | |
| L1 in inches | 1.24 " | | |
| 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 |
| | | | 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 | | |

Creation date June 23, 2024 5:36:05 AM CEST

Catalogue status 14.06.2024 / We reserve the right to make technical changes.

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Technical data

Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, max. number of poles
(Tu=20°C)

12 A

Rated current, max. number of poles
(Tu=40°C)

10 A

Rated voltage for surge voltage class /
pollution degree III/2

160 V

Rated impulse voltage for surge voltage
class/ pollution degree II/2

2.5 kV

Rated impulse voltage for surge voltage
class/ contamination degree III/3

2.5 kV

Rated current, min. number of poles
(Tu=20°C)

15 A

Rated current, min. number of poles
(Tu=40°C)

13 A

Rated voltage for surge voltage class /
pollution degree II/2

320 V

Rated voltage for surge voltage class /
pollution degree III/3

160 V

Rated impulse voltage for surge voltage
class/ pollution degree III/2

2.5 kV

Short-time withstand current resistance

3 x 1s with 100 A

Rated data acc. to CSA

Institute (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)



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

VPE length

332 mm

VPE height

63 mm

Tape width (W)

56 mm

Tape pocket height (AO)

11.41 mm

Tape pocket separation (P1)

16 mm

Tape pocket separation (F)

26.2 mm

Surface resistance

 $R_s = 10^9 - 10^{12} \Omega$

Packaging

Tape

VPE width

332 mm

Tape depth (T2)

12.1 mm

Tape pocket depth (KO)

11.6 mm

Tape pocket width (BO)

43.7 mm

Tape hole separation (E)

1.75 mm

Tape reel diameter \varnothing (A)

330 mm

Classifications

ETIM 6.0

EC002637

ETIM 7.0

EC002637

ETIM 8.0

EC002637

ETIM 9.0

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

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Technical data

Environmental Product Compliance

REACH SVHC

/

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 $D = 1.4 + 0.1 \text{ mm}$
- Solder eyelet diameter $D = 1.5 + 0.1 \text{ mm}$, 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

Approvals

Approvals



ROHS

Conform

UL File Number Search

UL Website

Certificate No. (UR)

E60693

Downloads

Engineering Data

[CAD data – STEP](#)

Product Change Notification

[PCN_2015_208_PL30X_SC-SMT_SL_SMT_3.xx_5.xx_neue_Tapeverpackung_Step_3_DE](#)
[PCN_2015_208_PL30X_SC-SMT_SL_SMT_3.xx_5.xx_new_Tape_Packaging_Step_3_EN](#)
[Changeover to ESD bags for "Tape on Reel" products](#)
[Umstellung auf ESD-Beutel bei „Tape on Reel“ Produkten](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

[FL DRIVES EN](#)
[FL DRIVES DE](#)

White paper surface mount technology

[Download Whitepaper](#)

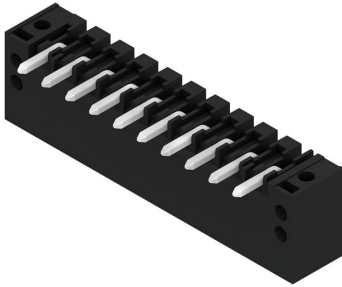
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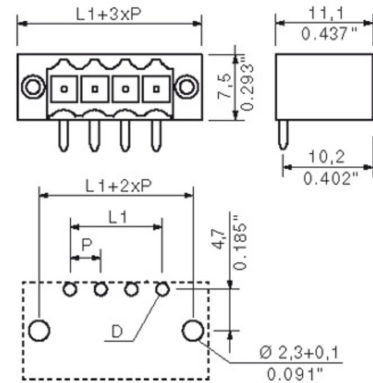
www.weidmueller.com

Drawings

Product image

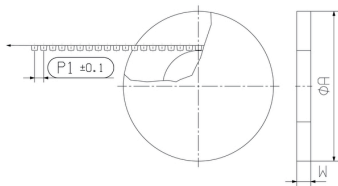


Dimensional drawing

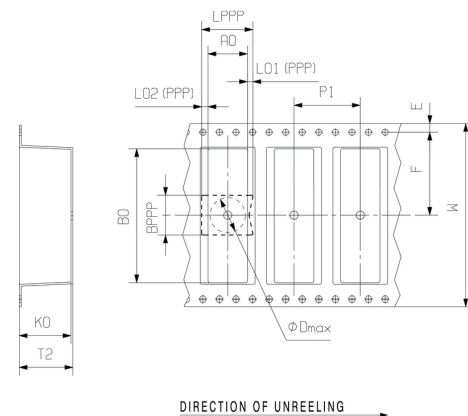


$L1 = 31.50 \text{ mm} \mid P = 3.50 \text{ mm}$

Dimensional drawing



Dimensional drawing



Example of use



SL-SMT 3.50/10/90F 3.2SN BK RL

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Accessories

LED Light guides

**Effective: the link between LED and front panel.**

Floodlight indicators allow users to monitor the switching states without requiring a special design: optical plastic directs the light from standard LEDs around a bend into the connectors or through the front plate.

The fibre-optic elements are simply clipped behind the relevant 90° bend male connectors (90° outlet direction). Versions with different incoming light beam heights achieve maximum light efficiency for LEDs with different designs or heights.

The advantages compared to conventional solutions:

- No additional LED circuit board required behind the front panel
- No "long-legged" LEDs with separate mounting required
- Bent fibre-optic cable line for maximum light efficiency
- Uncomplicated front plate bore holes due to circular shape of outgoing light beam
- Easy to maintain correct clearance and creepage distance
- Can be partitioned for smaller pole numbers

The result: simplified manufacturing process, reduced costs and simplified design

General ordering data

| Type | SL 3.5 FLA 2.3/1.75/8 | Version | Product data | Packaging |
|------------|----------------------------|---|--------------|-----------|
| Order No. | 1597640000 | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190011321 | Number of poles: 1 | | |
| Qty. | 25 pc(s). | | | |
| Type | SL 3.5 FLA 2.3/8 | Version | Product data | Packaging |
| Order No. | 1597520000 | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190120566 | Number of poles: 1 | | |
| Qty. | 50 pc(s). | | | |
| Type | SL 3.5 FLA 1.5/8 | Version | Product data | Packaging |
| Order No. | 1597510000 | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190127541 | Number of poles: 1 | | |
| Qty. | 50 pc(s). | | | |
| Type | SL 3.5 FLA 4.0/8 | Version | Product data | Packaging |
| Order No. | 1597530000 | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190075699 | Number of poles: 1 | | |
| Qty. | 50 pc(s). | | | |
| Type | SL 3.5 FLA 4.0/1.75/8 | Version | Product data | Packaging |
| Order No. | 1597650000 | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190027773 | Number of poles: 1 | | |
| Qty. | 50 pc(s). | | | |
| Type | SL 3.5 FLA 1.5/1.75/8 | Version | Product data | Packaging |
| Order No. | 1597630000 | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190148386 | Number of poles: 1 | | |
| Qty. | 50 pc(s). | | | |

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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 | BL SL 3.5 KO SW | Version | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No. | 1610100000 | PCB plug-in connector, Accessories, Coding element, black, Number | | Box |
| GTIN (EAN) | 4008190187637 | of poles: 1 | | |
| Qty. | 100 pc(s). | | | |
| Type | BL SL 3.5 KO OR | Version | Product data | Packaging |
| Order No. | 1693430000 | PCB plug-in connector, Accessories, Coding element, orange, Number | | Box |
| GTIN (EAN) | 4008190867447 | of poles: 1 | | |
| Qty. | 100 pc(s). | | | |