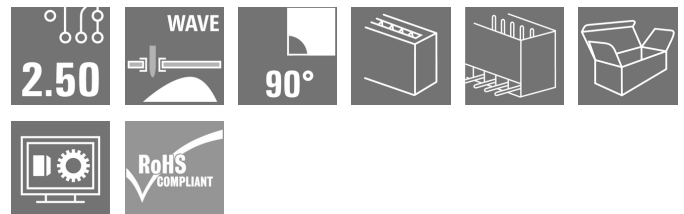


SL 2.50/04/90G 3.2SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Similar to illustration

Male header for wave soldering in 2.50 mm pitch.

- Plugging direction is parallel (90°) to the PCB
- Housing variant: Closed (G)
- Packaged in a cardboard box (BX)

General ordering data

| | |
|--------------|---|
| Version | PCB plug-in connector, male header, THT solder connection, Pitch in mm (P): 2.50 mm, Number of poles: 4, 90°, Box |
| Order No. | 2439770000 |
| Type | SL 2.50/04/90G 3.2SN BK BX |
| GTIN (EAN) | 4050118454949 |
| Qty. | 250 pc(s). |
| Product data | IEC: 320 V / 6 A UL: 150 V / 5 A |
| Packaging | Box |

Creation date November 7, 2024 9:59:39 AM CET

Catalogue status 26.10.2024 / We reserve the right to make technical changes.

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 10.1 mm | Depth (inches) | 0.398 inch |
| Height | 11.3 mm | Height (inches) | 0.445 inch |
| Height of lowest version | 8.1 mm | Width | 11.9 mm |
| Width (inches) | 0.469 inch | Net weight | 0.972 g |

System specifications

| | | | |
|--|---|--|------------------------------|
| Product family | OMNIMATE Signal - series BL/SL 2.50 | Type of connection | Board connection |
| Mounting onto the PCB | THT solder connection | Pitch in mm (P) | 2.5 mm |
| Pitch in inches (P) | 0.098 " | Outgoing elbow | 90° |
| Number of poles | 4 | Number of solder pins per pole | 1 |
| Solder pin length (l) | 3.2 mm | Solder pin length tolerance | +0.1 / -0.1 mm |
| Solder pin dimensions | 0.8 x 0.8 mm | Solder pin dimensions = d tolerance | +0,02 / -0,02 mm |
| Solder eyelet hole diameter (D) | 1.3 mm | Solder eyelet hole diameter tolerance (D)+ | 0,1 mm |
| L1 in mm | 7.5 mm | L1 in inches | 2.952 " |
| Number of rows | 1 | Pin series quantity | 1 |
| 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 |

Material data

| | | | |
|--------------------------------------|-----------------------------------|----------------------------------|----------|
| Insulating material | PA 66 | Colour | black |
| Colour chart (similar) | RAL 9011 | Comparative Tracking Index (CTI) | ≥ 600 |
| UL 94 flammability rating | V-0 | Contact material | Cu-alloy |
| Contact surface | tinned | Tinning type | matt |
| Layer structure of solder connection | 1...3 µm Ni / 4...6 µm Sn matt | Storage temperature, min. | -40 °C |
| Storage temperature, max. | 70 °C | Operating temperature, min. | -40 °C |
| Operating temperature, max. | 105 °C | | |

Rated data acc. to IEC

| | | | |
|---|-----------|---|--------|
| tested acc. to standard | IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 6 A |
| Rated current, min. number of poles (Tu=40°C) | 6 A | Rated voltage for surge voltage class / pollution degree II/2 | 320 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 320 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 | | |

Rated data acc. to CSA

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

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Technical data

Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 150 V

Rated current (Use group B / UL 1059) 5 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Packing

| | | | |
|-----------|-------|------------|--------|
| Packaging | Box | VPE length | 138 mm |
| VPE width | 88 mm | VPE height | 52 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 |
| ECLASS 14.0 | 27-46-02-01 | | |

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"> 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. 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. (cURus) | E60693 |

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SL 2.50/04/90G 3.2SN BK BX

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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 |

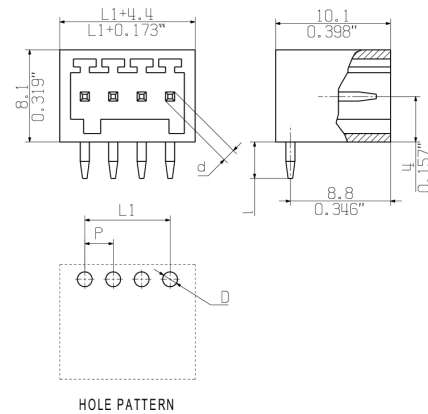
SL 2.50/04/90G 3.2SN BK BX

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Drawings

Dimensional drawing



SL 2.50/04/90G 3.2SN BK BX

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Drawings

Product benefits



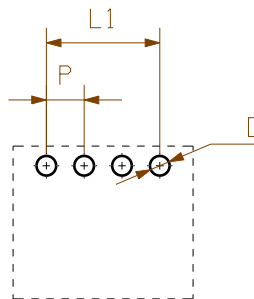
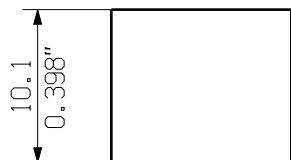
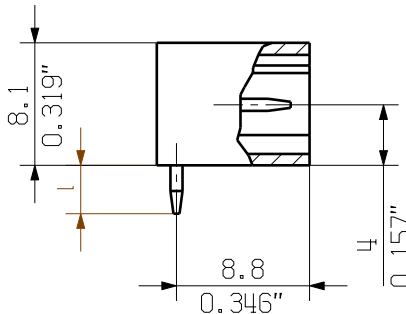
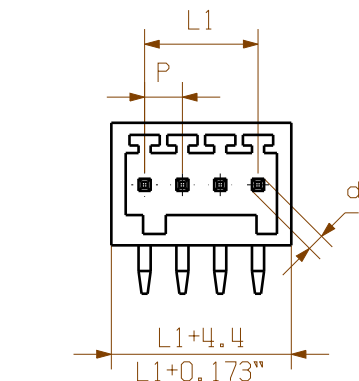
Operating safety
Through PUSH IN connection system

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WEIDMÜLLER INTERFACE GmbH & Co. KG

MASS E OHNE TOLERANZ SIND KEINE PRUEFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING



HOLE PATTERN



1:1

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

SHOWN: SL 2.50/04/90 3.2SN

n = POLZAHL/NO OF POLS

L1 = (n-1) x P

P = 2.50mm RASTER
0,098" PITCH

D = Ø1.3 +0.1
0.051"

d = 1.0, OKTAGONAL
0.039"

l = 3.2
0.126"

| | | |
|----|--------|----------|
| 12 | 31,90 | 1,256 |
| 11 | 29,40 | 1,157 |
| 10 | 26,90 | 1,059 |
| 9 | 24,40 | 0,961 |
| 8 | 21,90 | 0,862 |
| 7 | 19,40 | 0,764 |
| 6 | 16,90 | 0,665 |
| 5 | 14,40 | 0,567 |
| 4 | 11,90 | 0,469 |
| 3 | 9,40 | 0,370 |
| 2 | 6,90 | 0,272 |
| n | L [mm] | L [Inch] |

GENERAL TOLERANCE:
DIN ISO 2768-mH



MAX. NRN./NOS.

86511/0
02.03.16 AMANN_A 00

MODIFICATION

Weidmüller



CAT.NO.:

4 63328

00

DRAWING NO.

ISSUE NO.

SHEET 00

OF 00

SHEETS



DRAWN

DATE

NAME

RESPONSIBLE

02.02.2016

AMANN_A

CHECKED

02.03.2016

AMANN_A

APPROVED

LANG_T

HELI_S_MA

SL 2.50/2-12/90..

STIFTLEISTE
MALE HEADER

SCALE: 2:1

SUPERSEDES:

PRODUCT FILE: SL/BLF 2.50

7414

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.

We reserve the right to make technical changes.