

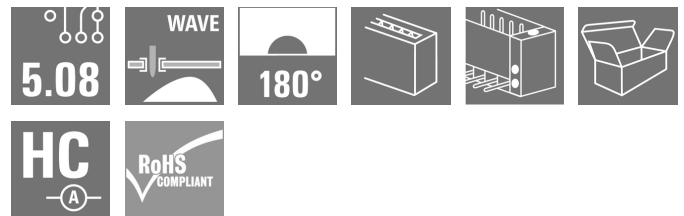
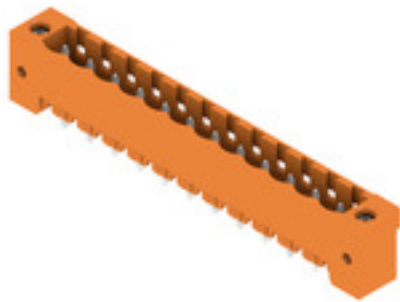
SL 5.08HC/12/180F 3.2SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

Pin headers in glass-fibre-reinforced plastic with straight wire outlet; optimised for wave soldering. The flange variant (F) can be screwed onto the respective counter piece or the circuit board. There is no need for an extra screw to connect the circuit board when the solder flange (LF) version is used. This also protects the solder points from mechanical strain. All pin headers can be manually coded or ordered pre-coded. HC = High Current.

General ordering data

| | |
|--------------|---|
| Version | PCB plug-in connector, male header, Flange, THT solder connection, 5.08 mm, Number of poles: 12, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box |
| Order No. | 1147440000 |
| Type | SL 5.08HC/12/180F 3.2SN OR BX |
| GTIN (EAN) | 4032248931163 |
| Qty. | 24 pc(s). |
| Product data | IEC: 400 V / 24 A UL: 300 V / 18.5 A |
| Packaging | Box |

Creation date June 5, 2024 12:58:19 PM CEST

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Depth | 8.5 mm | Depth (inches) | 0.335 inch |
| Height | 15.2 mm | Height (inches) | 0.598 inch |
| Height of lowest version | 12 mm | Width | 70.96 mm |
| Width (inches) | 2.794 inch | Net weight | 5.34 g |

System specifications

| | | | |
|--|--|---------------------|--|
| Product family | OMNIMATE Signal - series BL/SL 5.08 | | |
| Type of connection | Board connection | | |
| Mounting onto the PCB | THT solder connection | | |
| Pitch in mm (P) | 5.08 mm | | |
| Pitch in inches (P) | 0.2 " | | |
| Outgoing elbow | 180° | | |
| Number of poles | 12 | | |
| Number of solder pins per pole | 1 | | |
| Solder pin length (l) | 3.2 mm | | |
| Solder pin length tolerance | +0.1 / -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) | 1.5 mm | | |
| Solder eyelet hole diameter tolerance (D) | + 0.1 mm | | |
| L1 in mm | 55.88 mm | | |
| L1 in inches | 2.2 " | | |
| 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 | | |
| Protection degree | IP20 | | |
| Volume resistance | ≤5 mΩ | | |
| Can be coded | Yes | | |
| Plugging cycles | 25 | | |
| Plugging force/pole, max. | 10 N | | |
| Pulling force/pole, max. | 7.5 N | | |
| Tightening torque | Torque type | Mounting screw, PCB | |
| | Usage information | Tightening torque | min. 0.15 Nm |
| | | | max. 0.2 Nm |
| | | Recommended screw | Part number PTSC KA 2.2X4.5 WN1412 |

Material data

| | | | |
|---------------------------------------|--------------------------------|---------------------------------------|--------------------------------|
| Insulating material | PA GF | Colour | orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 550 | UL 94 flammability rating | V-0 |
| Contact material | Cu-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. | 100 °C |
| Temperature range, installation, min. | -25 °C | Temperature range, installation, max. | 100 °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) | 24 A |
| Rated current, max. number of poles (Tu=20°C) | 19 A | Rated current, min. number of poles (Tu=40°C) | 21 A |
| Rated current, max. number of poles (Tu=40°C) | 16.5 A | Rated voltage for surge voltage class / pollution degree II/2 | 400 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 320 V | Rated voltage for surge voltage class / pollution degree III/3 | 250 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 4,000 V | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV | | |

Rated data acc. to CSA

| | | | |
|-----------------------------------|---|-----------------------------------|----------------|
| Institute (CSA) |  | Certificate No. (CSA) | 200039-1121690 |
| Rated voltage (Use group B / CSA) | 300 V | Rated voltage (Use group D / CSA) | 300 V |
| Rated current (Use group B / CSA) | 18.5 A | Rated current (Use group D / CSA) | 18.5 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|---|---------------------------------------|--------|
| Institute (cURus) |  | Certificate No. (cURus) | 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) | 18.5 A | Rated current (Use group D / UL 1059) | 10 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 339 mm |
| VPE width | 134 mm | VPE height | 21 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

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 • Rated current related to rated cross-section & min. No. of poles. • Diameter of solder eyelet $D = 1.4 \pm 0.1 \text{ mm}$ • Solder eyelet diameter $D = 1.5 \pm 0.1 \text{ mm}$, 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. • 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 |

Downloads

| | |
|---|--|
| Approval/Certificate/Document of Conformity | CB Certificate CB Testreport 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 FL INDUSTR.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 |

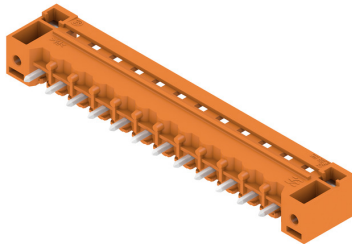
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Drawings

Product image



Dimensional drawing



Product benefits



Safe power transmission
Proven properties

Graph



Graph



Graph



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Dimensions without tolerances are no check dimensions

The English version is binding



HOLE PATTERN

PCB-Ø 1,4 TILL POLE 8
PCB-Ø 1,5 FROM POLE 9



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 IEC 60326 part 3 very fine.

Weidmueller 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.

P=PITCH

SHOWN: SL 5.08HC/04/180F

| STIFTLAENGE L PIN LENGTH L | TOLERANZ TOLERANCE |
|-------------------------------|-----------------------|
| 3,2 | 0,1 -0,3 |
| 4,5 | 0,1 -0,3 |

| | | |
|----|---------|-----------|
| 24 | 116,84 | 4,600 |
| 23 | 111,76 | 4,400 |
| 22 | 106,68 | 4,200 |
| 21 | 101,60 | 4,000 |
| 20 | 96,52 | 3,800 |
| 19 | 91,44 | 3,600 |
| 18 | 86,36 | 3,400 |
| 17 | 81,28 | 3,200 |
| 16 | 76,20 | 3,000 |
| 15 | 71,12 | 2,800 |
| 14 | 66,04 | 2,600 |
| 13 | 60,96 | 2,400 |
| 12 | 55,88 | 2,200 |
| 11 | 50,80 | 2,000 |
| 10 | 45,72 | 1,800 |
| 9 | 40,64 | 1,600 |
| 8 | 35,56 | 1,400 |
| 7 | 30,48 | 1,200 |
| 6 | 25,40 | 1,000 |
| 5 | 20,32 | 0,800 |
| 4 | 15,24 | 0,600 |
| 3 | 10,16 | 0,400 |
| 2 | 5,08 | 0,200 |
| n | L1 [mm] | L1 [Inch] |

General tolerance:
DIN ISO 2768-mK



99587/5
22.11.17 HELIS_MA 04

Modification

Weidmüller

Cat.no.:
3 50953 04
Drawing no. Issue no.
Sheet 04 of 05 sheets



| | Date | Name |
|-------------|------------|----------|
| Drawn | 18.02.2011 | HERTEL_S |
| Responsible | | HERTEL_S |
| Checked | 30.11.2017 | HELIS_MA |
| Approved | | LANG_T |

SL 5.08HC/.. /180..
STIFTELEISTE
MALE HEADER

Product file: SL5.08 HC

7377

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.