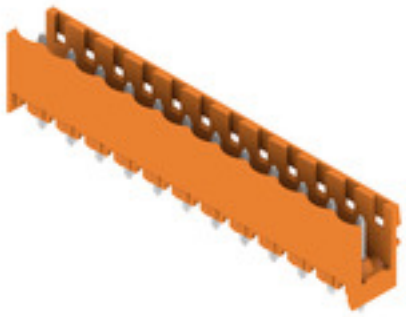
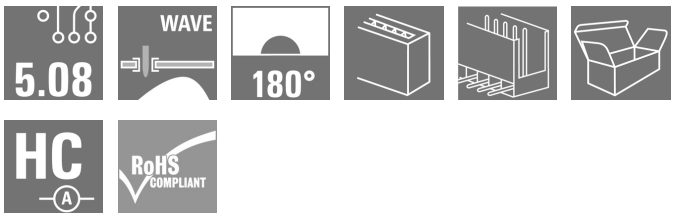
# SL 5.08HC/12/180 3.2SN OR BX

**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, open side, THT solder connection, 5.08 mm, Number of poles: 12, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box |
| Order No. | 1146570000 |
| Type | SL 5.08HC/12/180 3.2SN OR BX |
| GTIN (EAN) | 4032248933167 |
| Qty. | 50 pc(s). |
| Product data | IEC: 400 V / 24 A<br>UL: 300 V / 18.5 A |
| Packaging | Box |

Creation date November 17, 2023 6:13:19 PM CET

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## Technical data

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 8.43 mm | Depth (inches) | 0.332 inch |
| Height | 15.2 mm | Height (inches) | 0.598 inch |
| Height of lowest version | 12 mm | Width | 60.76 mm |
| Width (inches) | 2.392 inch | Net weight | 3.424 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 |

### 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 | CuMg | 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 |

### 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 kV | 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

| | | | |
|---|---|---|---|
| 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 |

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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) | 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 | 169 mm |
| VPE width | 117 mm | VPE height | 38 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 | 27460201 |

### 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<br>• Gold-plated contact surfaces on request<br>• Rated current related to rated cross-section & min. No. of poles.<br>• Diameter of solder eyelet D = 1.4+0.1mm<br>• Solder eyelet diameter D = 1.5 + 0.1 mm, from 9 poles<br>• P on drawing = pitch<br>• 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.<br>• 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<br>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

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## Technical data

### Approvals

| | |
|---|---|
| Approvals |  |
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

### Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | CB Certificate<br>CB Testreport<br>Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Product Change Notification | EN - Change of packaging<br>DE - Change of packaging |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN<br>MB DEVICE MANUF. EN<br>FL DRIVES DE<br>FL BUILDING SAFETY EN<br>FL APPL LED LIGHTING EN<br>FL INDUSTR.CONTROLS EN<br>FL MACHINE SAFETY EN<br>FL HEATING ELECTR EN<br>FL APPL_INVERTER EN<br>FL_BASE_STATION_EN<br>FL ELEVATOR EN<br>FL POWER SUPPLY EN<br>FL 72H SAMPLE SER EN<br>PO OMNIMATE EN<br>PO OMNIMATE EN |

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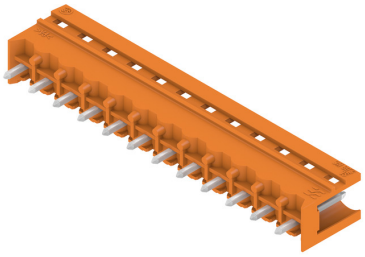
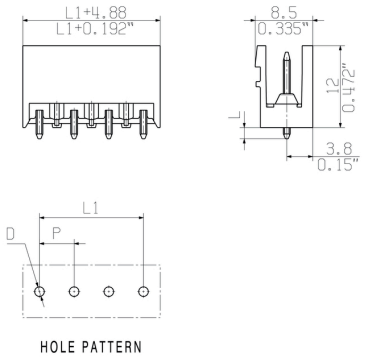
## Drawings

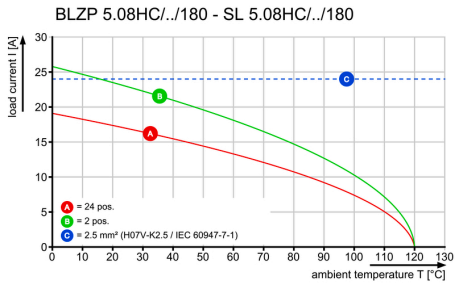
### Product image



### Dimensional drawing




### Graph

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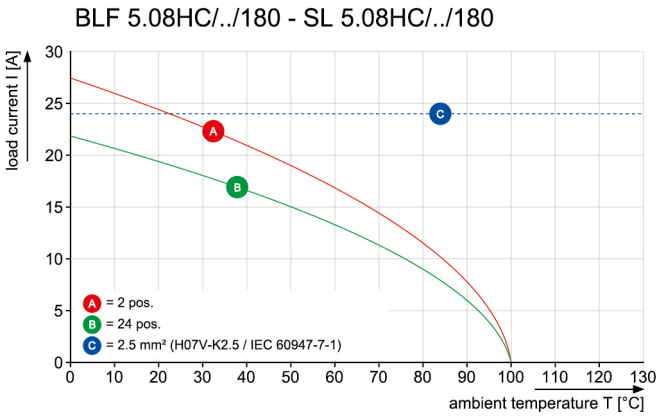


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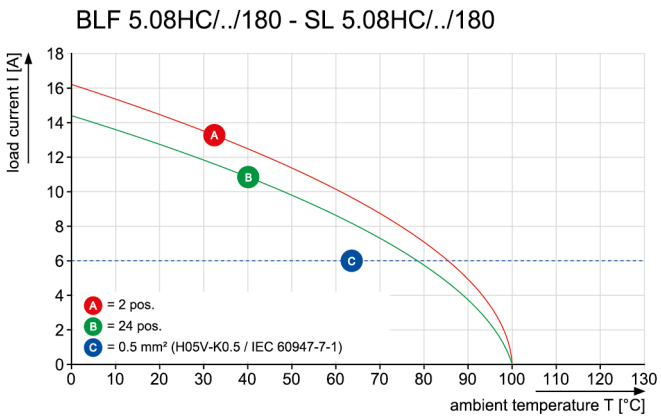
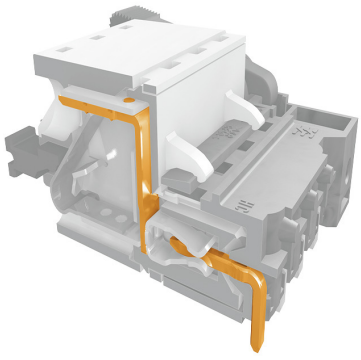
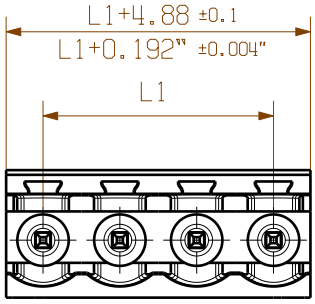
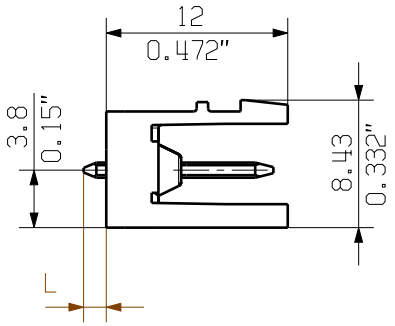


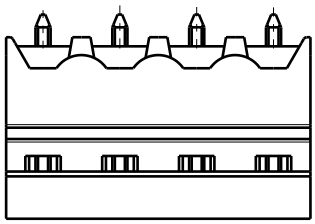

### Product benefits



Safe power transmission
Proven properties



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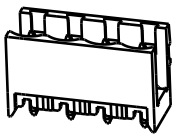
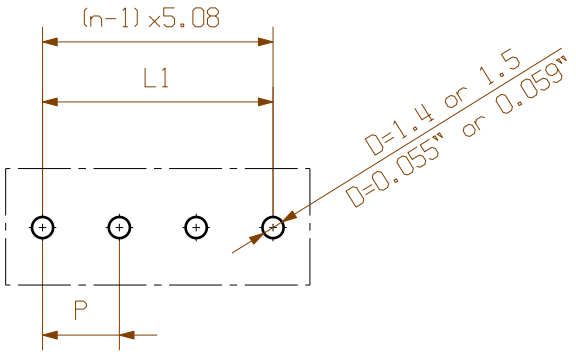





HOLE PATTERN

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

| n | L1 [mm] | L1 [Inch] |
|---|---|---|
| 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 |

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

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary 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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

P=PITCH

SHOWN: SL 5.08HC/04/180

General tolerance:
DIN ISO 2768-mK

RoHS COMPLIANT

99587/5
22.11.17 HELIS_MA
04

Modification

Weidmüller

Cat.no.: .

3 50953 04
Drawing no. Issue no.

Sheet 01 of 05 sheets

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

Scale: 2:1

Supersedes: .

# SL 5.08HC/../180..

STIFTLEISTE
MALE HEADER

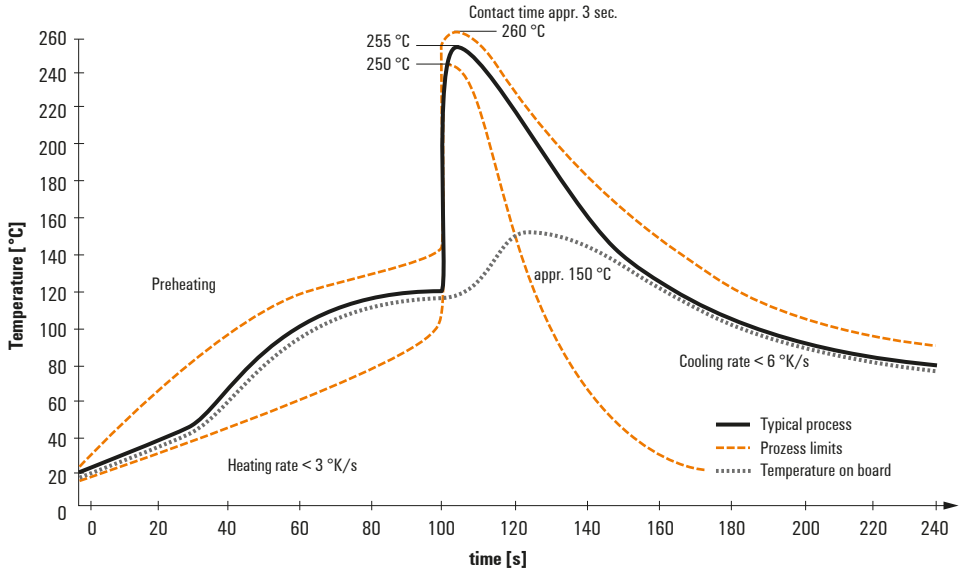
Product file: SL5.08 HC 7377

# Wave Solder Profile

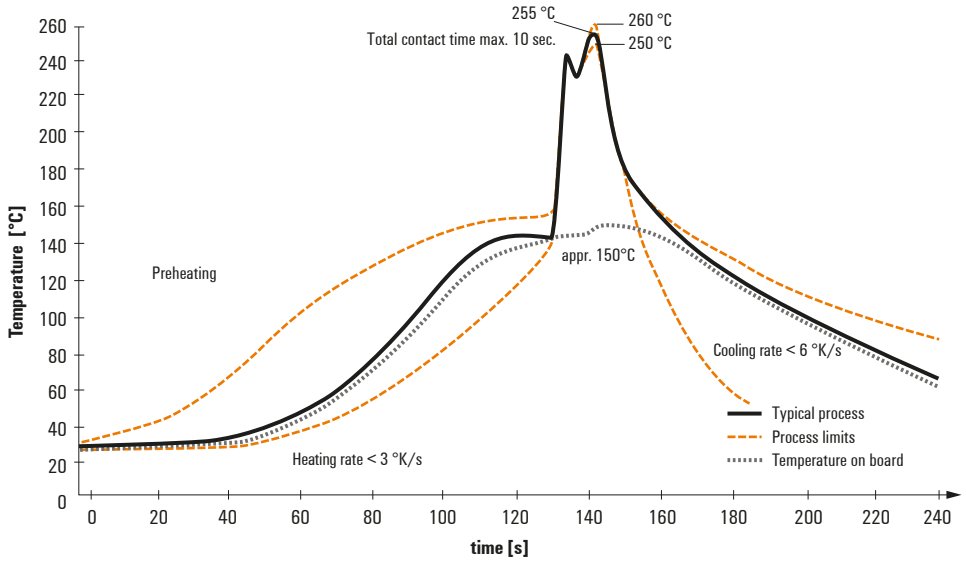
## Recommended wave solderding profiles

**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.