

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

Product image



















Similar to illustration

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, THT solder connection, 5.08 mm, Number of poles: 4, 180°, Solder pin length (I): 3.2 mm, Gold-plated, orange, Box |
|--------------|--|
| Order No. | <u>2536090000</u> |
| Туре | SL 5.08HC/04/180 3.2AU OR BX |
| GTIN (EAN) | 4050118547849 |
| Oty. | 100 pc(s). |
| Product data | IEC: 400 V / 24 A UL: 300 V / 18.5 A |
| Packaging | Box |

Creation date April 16, 2021 12:06:56 AM 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 | Net weight | 1.301 g |
| Width | 20.32 mm | Width (inches) | 0.8 inch |

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 inch | Outgoing elbow | 180° |
| Number of poles | 4 | Solder pin length (I) | 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 | L1 in mm | 15.24 mm |
| L1 in inches | 0.6 inch | Pin series quantity | 1 |
| Volume resistance | ≤5 mΩ | Plugging cycles | ≥ 100 |
| 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 | Insulation strength | ≥ 10 ⁸ Ω |
| UL 94 flammability rating | V-0 | Contact material | CuMg |
| Contact surface | | Layer structure of solder connection | 13 μm Ni / 24 μm Sn |
| | Gold-plated | | matt |
| Layer structure of plug contact | 13 µm Ni / 24 µm Sn / | Storage temperature, min. | |
| | 1.72.3 μm Au | | -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 | | Rated current, min. number of poles | |
|---|------------------------|---|-------|
| tootou uoon to otamuunu | IEC 60664-1, IEC 61984 | (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 |

Rated data acc. to UL 1059

| 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 |

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Technical data

| Pac | | - | |
|-----|----|----|----|
| Par | ٠и | ır | nn |
| | | | |

| Packaging | Box | VPE length | 153 mm | |
|----------------------------------|--|---|--|--|
| VPE width | | | | |
| VPE Width | 112 mm | VPE height | 33 mm | |
| Important note | | | | |
| IPC conformity | Conformity The word set and developed manufactured and delivered according in the set of | | | |
| ii o comornity | 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 colours | on request | | |
| | Gold-plated contact | t surfaces on request | | |
| | 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. | | | |
| | Long term storage | of the product with average temperature | of 50 °C and average humidity 70%, 36 months | |
| Approvals | | | | |
| ROHS | Conform | | | |
| Downloads | | | | |
| 2011110440 | | | | |
| Approval/Certificate/Document of | CB Certificate | | | |
| Conformity | CB Testreport | | | |
| Product Change Notification | EN - Change of pac | kaging | | |
| | DE - Change of pac | | | |
| Brochure/Catalogue | Catalogues in PDF-format | | | |



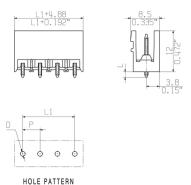
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Drawings

Dimensional drawing

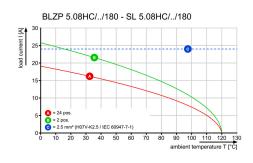


Product benefits

Graph



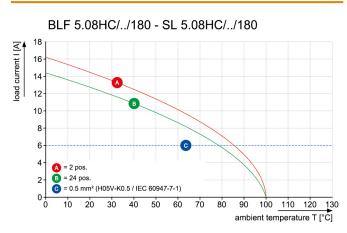
Safe power transmission Proven properties

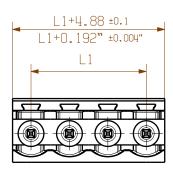


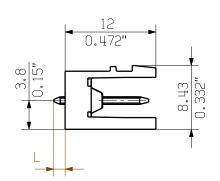
Graph

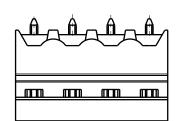
BLF 5.08HC/../180 - SL 5.08HC/../180 30 load current I [A] 25 20 15 10 A = 2 pos. 5-= 2.5 mm² (H07V-K2.5 / IEC 60947-7-1) 30 40 50 60 70 80 90 100 110 120 130 ambient temperature T [°C]

Graph









4,600

4,400

4,200

4.000

3.800

3,600

3,400

3,200

3.000

2.800

2,600

2,400

2.200

2,000

1,800

1.600

1.400

1,200

116,84

111,76

106,68

101,60

96,52

91.44

86,36

81,28

76,20

71,12

66.04

60,96

55.88

50,80

45,72

40.64

35.56

30.48

23

22

21

20

19

18

17

16

15

14

13

12

10

9

8

1/1

 $(n-1) \times 5.08$ L1 **①** Ð \oplus ⊕ PCB-Ø 1,4 TILL POLE 8 PCB-Ø 1,5 FROM POLE 9 HOLE PATTERN

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

| STIFTLAENGE L | TOLERANZ | Ľ |
|---------------|-----------|---|
| PIN LENGTH L | TOLERANCE | - |
| 2.0 | 0,1 | Ľ |
| 3,2 | -0,3 | |
| 4.5 | 0,1 | 4 |
| 4,5 | -0.3 | ı |

| | n | L1 [mm] | L1 [Inch] |
|---|---|---------|-----------|
| | 2 | 5,08 | 0,200 |
| | 3 | 10,16 | 0,400 |
| | 4 | 15,24 | 0,600 |
| Έ | 5 | 20,32 | 0,800 |
| 7 | 6 | 25,40 | 1,000 |
| | | | , |

| General | tolerance: |
|---------|------------|
| DIN ISO | 2768-mK |

99587/5 22.11.17 HELIS MA RoHS Madifiaatian

Weidmüller 🐔

04



50953 Drawing no.

Cat.no.:.

Issue no 01 sheets

| *- | Modification | | |
|---------------|--------------|------------|----------|
| | | Date | Name |
| 9 | Drawn | 18.02.2011 | HERTEL_S |
| | Responsible | | HERTEL_S |
| Scale: 2:1 | Checked | 30.11.2017 | HELIS_MA |
| Supersedes: . | Approved | | LANG_T |

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

Sheet

Product file: SL5.08 HC

7377

04



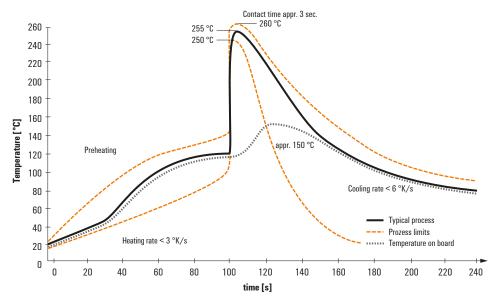
Recommended wave solderding profiles

Weidmüller Interface GmbH & Co. KG

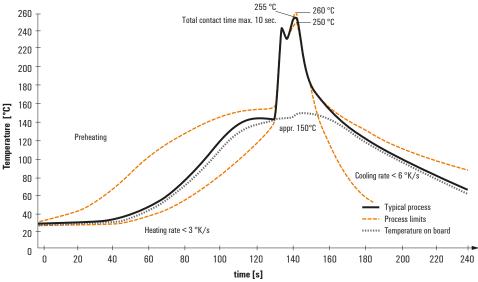
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Single Wave:



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.