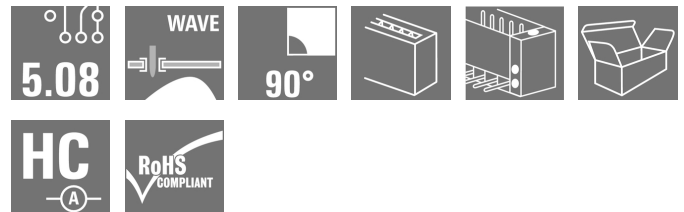


OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/12/90F 3.2SN OR BX

Weidmüller Interface GmbH & Co. KG
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Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image



Similar to illustration

Pin headers made from glass-fibre-reinforced plastic with 90° 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

| | |
|--------------|---|
| Type | SL 5.08HC/12/90F 3.2SN OR BX |
| Order No. | 1148940000 |
| Version | PCB plug-in connector, male header, Flange, THT solder connection, 5.08 mm, No. of poles: 12, 90°, Solder pin length (l): 3.2 mm, tinned, Orange, Box |
| GTIN (EAN) | 4032248935772 |
| Qty. | 24 pc(s). |
| Product data | IEC: 400 V / 24 A UL: 300 V / 18.5 A |
| Packaging | Box |

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Technical data**Dimensions and weights**

| | | | |
|--------------------------|------------|-----------------|------------|
| Width | 71.12 mm | Width (inches) | 2.8 inch |
| Height | 11.7 mm | Height (inches) | 0.461 inch |
| Height of lowest version | 8.5 mm | Depth | 12 mm |
| Depth (inches) | 0.472 inch | Net weight | 5.133 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 inch | Outgoing elbow | 90° |
| No. 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 |
| Tolerance of solder pin position | ± 0.15 mm | Solder pin dimensions | d = 1.2 mm, Octagonal |
| Solder pin dimensions = d tolerance | 0 / -0,03 mm | Solder eyelet hole diameter (D) | 1.3 mm |
| Solder eyelet hole diameter tolerance (D)+ | 0,1 mm | L1 in mm | 55.88 mm |
| L1 in inches | 2.2 inch | Number of rows | 1 |
| Pin series quantity | 1 | 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 |
| CTI | ≥ 550 | Insulation resistance | ≥ 10 ⁸ Ω |
| 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. | -25 °C |
| Storage temperature, max. | 55 °C | Max. relative humidity during storage | 80 % |
| 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. no. of poles (Tu=20°C) | 24 A |
| Rated current, max. no. of poles (Tu=20°C) | 19 A | Rated current, min. no. of poles (Tu=40°C) | 21 A |
| Rated current, max. no. 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) | 10 A |

Data sheet

**OMNIMATE Signal - series BL/SL 5.08
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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 current (Use group B / UL 1059) 18.5 A
 Reference to approval values Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group D / UL 1059) 300 V
 Rated current (Use group D / UL 1059) 10 A

Packaging

| | | | |
|-----------|--------|------------|--------|
| Packaging | Box | VPE length | 45 mm |
| VPE width | 110 mm | VPE height | 180 mm |

Classifications

| | | | |
|------------|-------------|------------|-------------|
| ETIM 4.0 | EC002637 | ETIM 5.0 | EC002637 |
| ETIM 6.0 | EC002637 | eClass 6.2 | 27-26-07-04 |
| eClass 7.1 | 27-44-04-02 | eClass 8.1 | 27-44-04-02 |
| eClass 9.0 | 27-44-04-02 | eClass 9.1 | 27-44-04-02 |

Notes

- Notes
- Additional colours on request
 - Gold-plated contact 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.

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.

Approvals

Approvals



ROHS Conform

Data sheet**OMNIMATE Signal - series BL/SL 5.08
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Technical data**Downloads**

Approval/Certificate/Document of
Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

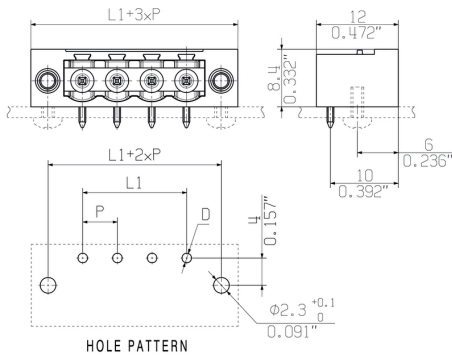
[FL DRIVES EN](#)
[MB DEVICE MANUF. EN](#)
[FL DRIVES DE](#)
[CAT 2 PORTFOLIOGUIDE EN](#)
[FL BUILDING SAFETY EN](#)
[FL APPL LED LIGHTING EN](#)
[FL INDUSTR.CONTROLS EN](#)
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[FL 72H SAMPLE SER EN](#)
[PO OMNIMATE EN](#)

**OMNIMATE Signal - series BL/SL 5.08
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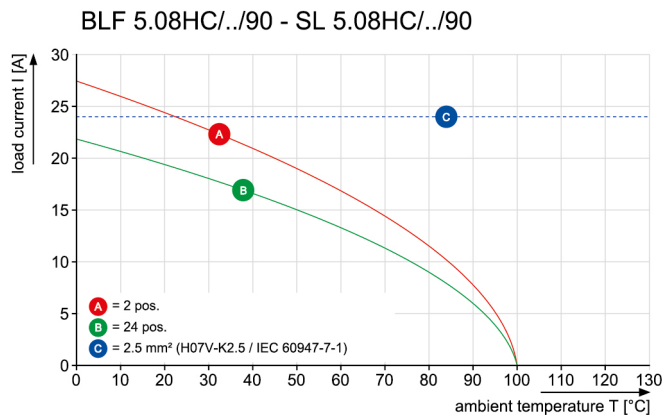
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Drawings

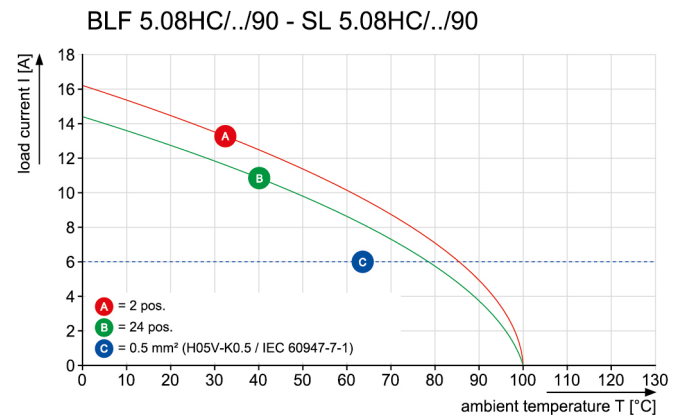
Dimensional drawing



Graph



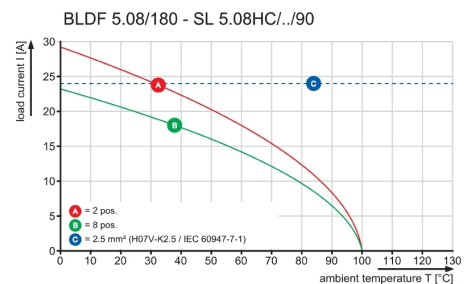
Graph



Graph



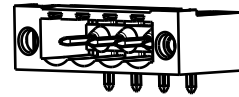
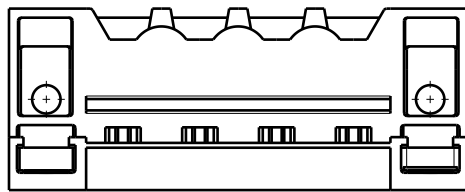
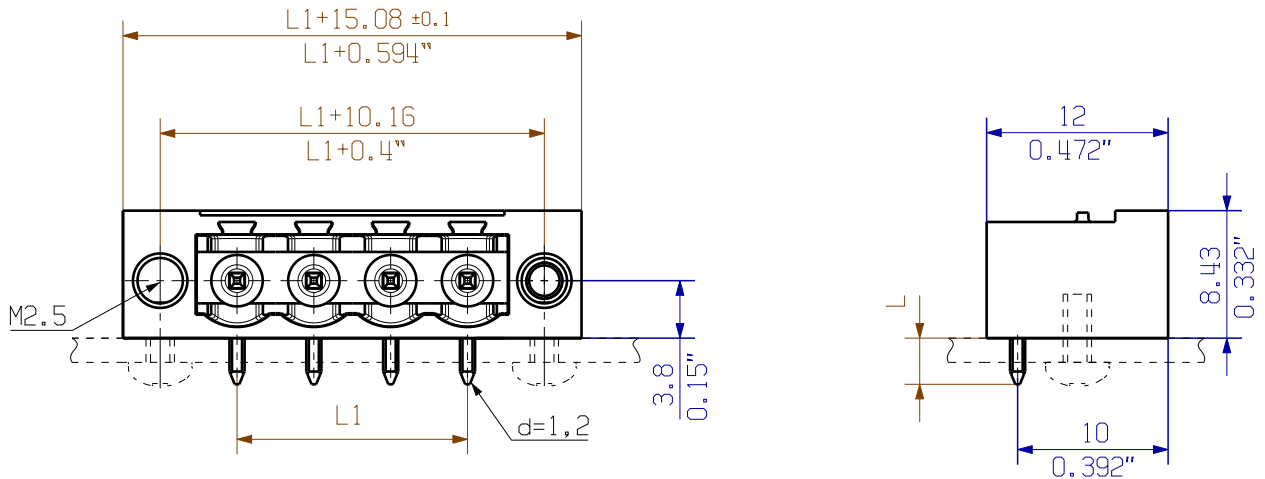
Graph



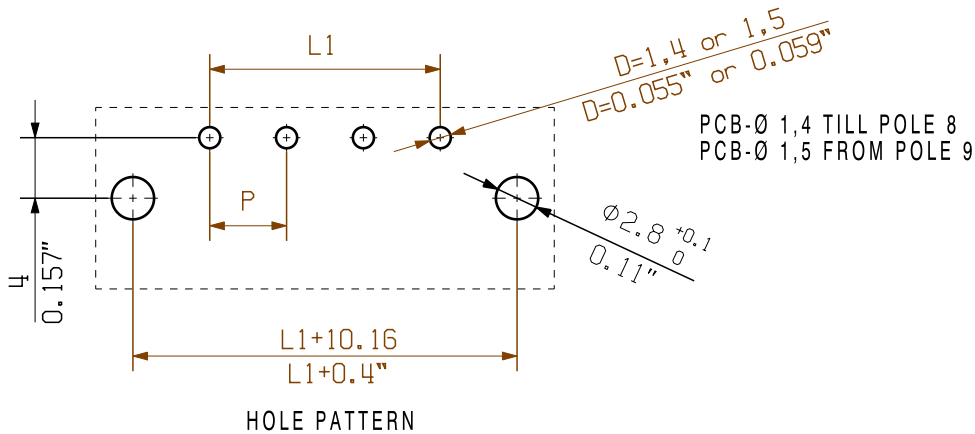
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Drawings**Graph**



1/1



| | | |
|----|---------|-----------|
| 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] |

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components 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/04/90F

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

| | | | | | |
|---------------|----------------|----------------------------------|----------|---|-------------|
| | DIN ISO 2768-m | 101482/5 07.02.18 HELIS_MA 00 | | Cat.no.: . | |
| | Modification | | | 3 48753 04 | Drawing no. |
| | Date | Name | Sheet 04 | of 05 | sheets |
| Scale: 2:1 | Drawn | 18.10.2010 | HERTEL_S | SL 5.08HC/.. /90... STIFTLAENGE MALE HEADER | |
| Supersedes: . | Responsible | | HERTEL_S | | |
| | Checked | 27.02.2018 | HELIS_MA | | |
| | Approved | | LANG_T | Product file: SL-HP 5.08 | 7377 |

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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.