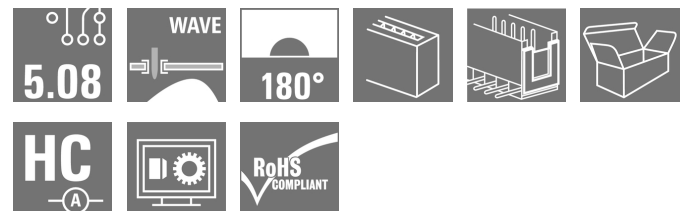
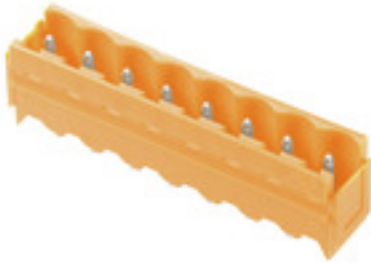


**OMNIMATE Signal - series BL/SL 5.08  
SL 5.08HC/04/180B 3.2SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com



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**

|              |                                                                                                                                                                               |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type         | SL 5.08HC/04/180B 3.2SN OR BX                                                                                                                                                 |
| Order No.    | <a href="#">1147360000</a>                                                                                                                                                    |
| Version      | PCB plug-in connector, male header, Dovetails for fixing blocks, THT solder connection, 5.08 mm, Number of poles: 4, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box |
| GTIN (EAN)   | 4032248934058                                                                                                                                                                 |
| Qty.         | 100 pc(s).                                                                                                                                                                    |
| Product data | IEC: 400 V / 24 A<br>UL: 300 V / 18.5 A                                                                                                                                       |
| Packaging    | Box                                                                                                                                                                           |

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### Technical data

#### Dimensions and weights

|                          |            |                 |            |
|--------------------------|------------|-----------------|------------|
| Width                    | 22.08 mm   | Width (inches)  | 0.869 inch |
| Height                   | 15.2 mm    | Height (inches) | 0.598 inch |
| Height of lowest version | 12 mm      | Depth           | 8.5 mm     |
| Depth (inches)           | 0.335 inch | Net weight      | 1.68 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                  | 180°                  |
| Number of poles                                   | 4                                   | Number of solder pins per pole  | 1                     |
| Solder pin length (l)                             | 3.2 mm                              | Solder pin length tolerance     | +0.1 / -0.3 mm        |
| Tolerance of solder pin position                  | ± 0.1 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                        | 15.24 mm              |
| L1 in inches                                      | 0.6 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                         |
| Comparative Tracking Index (CTI)      | ≥ 550                      | Insulation strength                   | ≥ 10 <sup>8</sup> Ω        |
| UL 94 flammability rating             | V-0                        | GWFI                                  | 960 °C                     |
| 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. 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 | 35 mm  |
| VPE width | 115 mm | VPE height | 165 mm |

**Classifications**

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0   | EC002637    |
| eClass 9.0  | 27-44-04-02 | eClass 9.1 | 27-44-04-02 |
| eClass 10.0 | 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

## OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/04/180B 3.2SN OR BX

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## Technical data

### Downloads

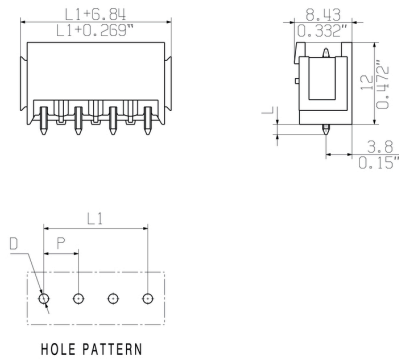
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">CB Certificate</a><br><a href="#">CB Testreport</a><br><a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">CAT 2 PORTFOLIOGUIDE EN</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FL INDUSTR.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL_BASE_STATION_EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |
| Engineering Data                            | <a href="#">EPLAN, WSCAD, Zuken E3.S</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Product Change Notification                 | <a href="#">EN - Change of packaging</a><br><a href="#">DE - Change of packaging</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/04/180B 3.2SN OR BX

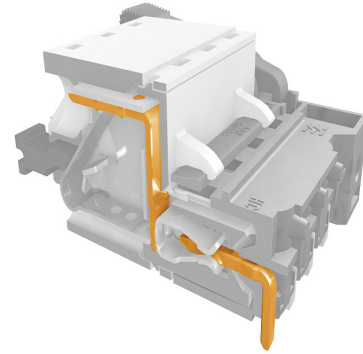
**Weidmüller Interface GmbH & Co. KG**  
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## Drawings

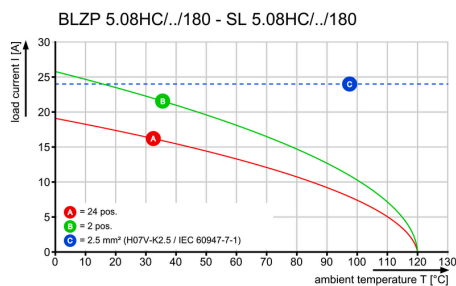
### Dimensional drawing



### Product benefits



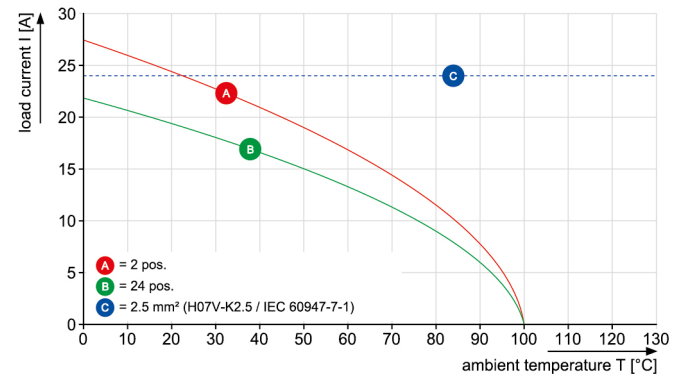
### Graph



### Graph

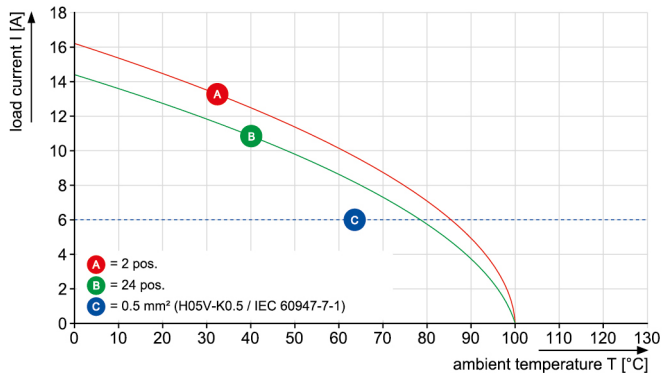
Safe power transmission  
Proven properties

BLF 5.08HC/.../180 - SL 5.08HC/.../180



### Graph

BLF 5.08HC/.../180 - SL 5.08HC/.../180

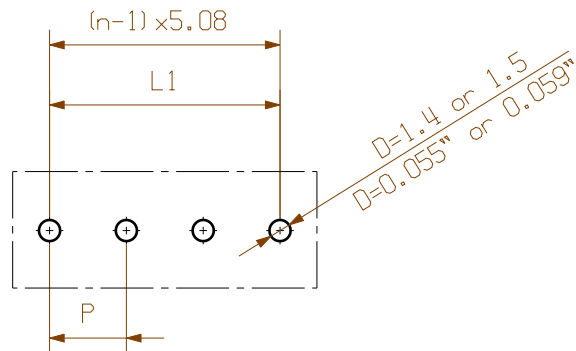
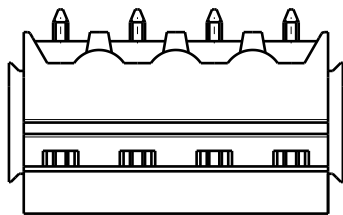
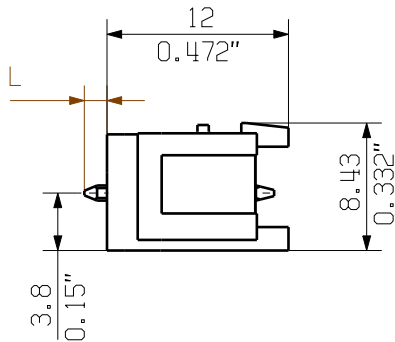
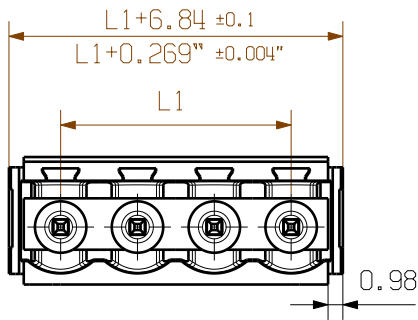


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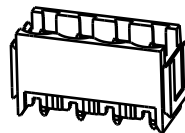
Dimensions without tolerances are no check dimensions

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/04/180B

| STIFTLAENGE L<br>PIN LENGTH L | TOLERANZ<br>TOLERANCE |
|-------------------------------|-----------------------|
| 3,2                           | 0,1<br>-0,3           |
| 4,5                           | 0,1<br>-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 02 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

Scale: 2:1

Supersedes: .

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.

