

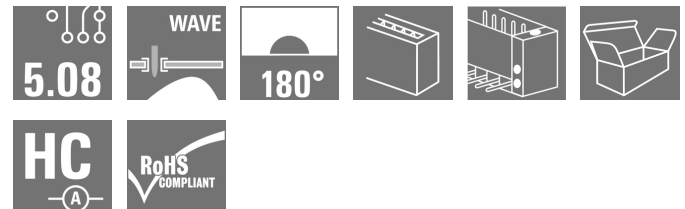
**SL 5.08HC/24/180F 3.2SN OR BX****Weidmüller Interface GmbH & Co. KG**

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: 24, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box |
| Order No.    | <a href="#">1147850000</a>                                                                                                                                |
| Type         | SL 5.08HC/24/180F 3.2SN OR BX                                                                                                                             |
| GTIN (EAN)   | 4032248931729                                                                                                                                             |
| Qty.         | 12 pc(s).                                                                                                                                                 |
| Product data | IEC: 400 V / 24 A<br>UL: 300 V / 18.5 A                                                                                                                   |
| Packaging    | Box                                                                                                                                                       |

Creation date September 16, 2022 12:56:16 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      | Width           | 131.92 mm  |
| Width (inches)           | 5.194 inch | Net weight      | 10.35 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                           | 24                                  |                     |                                                    |
| 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)           | 1.3 mm                              |                     |                                                    |
| Solder eyelet hole diameter tolerance (D) | + 0.1 mm                            |                     |                                                    |
| L1 in mm                                  | 116.84 mm                           |                     |                                                    |
| L1 in inches                              | 4.6 inch                            |                     |                                                    |
| Number of rows                            | 1                                   |                     |                                                    |
| Pin series quantity                       | 1                                   |                     |                                                    |
| Protection degree                         | IP20                                |                     |                                                    |
| Volume resistance                         | ≤5 mΩ                               |                     |                                                    |
| Can be coded                              | Yes                                 |                     |                                                    |
| 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 <a href="#">PTSC KA 2.2X4.5 WN1412</a> |

## 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                         |

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## 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

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

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 338 mm |
| VPE width | 130 mm | VPE height | 14 mm  |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0    | EC002637    |
| ETIM 8.0    | 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 |

## 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"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****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](#)  
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[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](#)

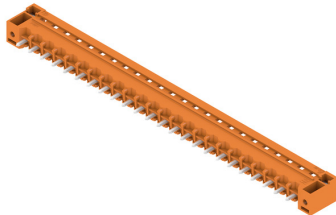
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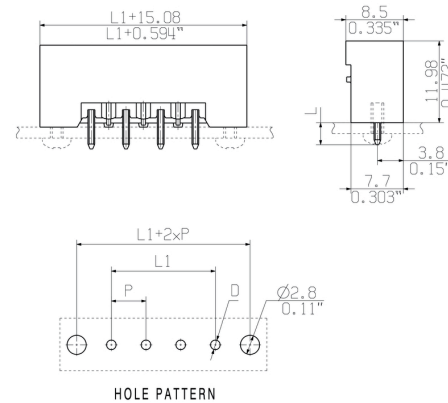
[www.weidmueller.com](http://www.weidmueller.com)

# Drawings

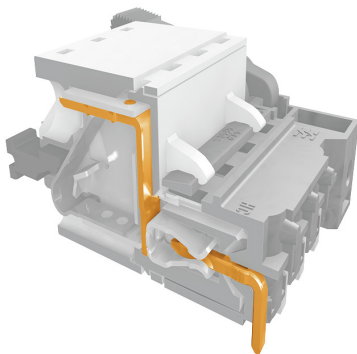
## Product image



## Dimensional drawing

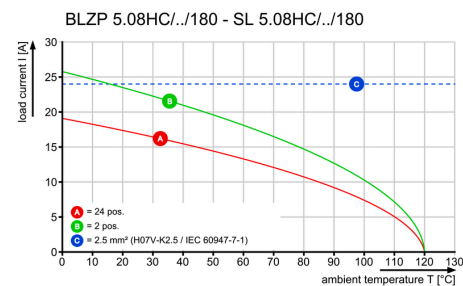


## Product benefits

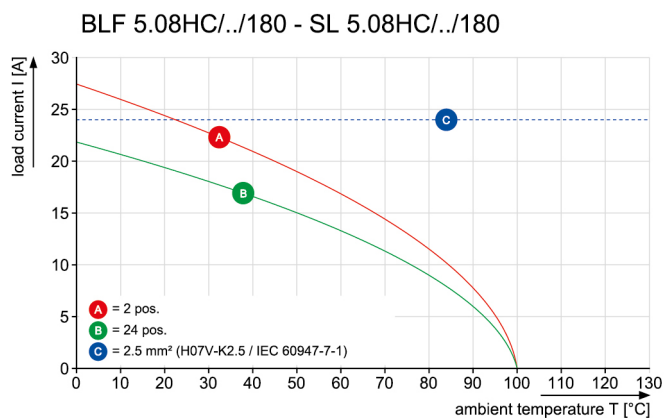


Safe power transmission  
Proven properties

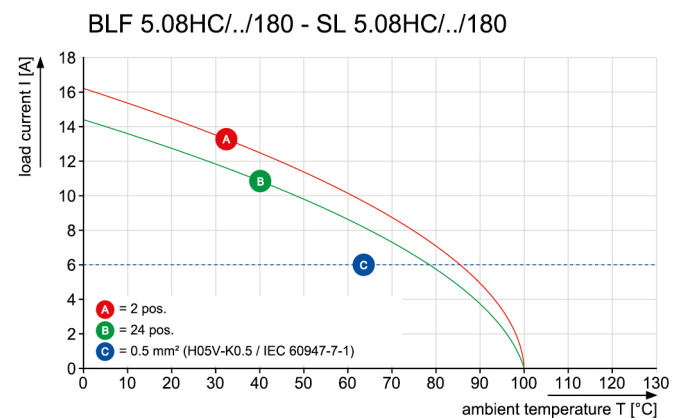
## Graph



## Graph



## Graph

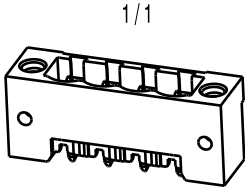
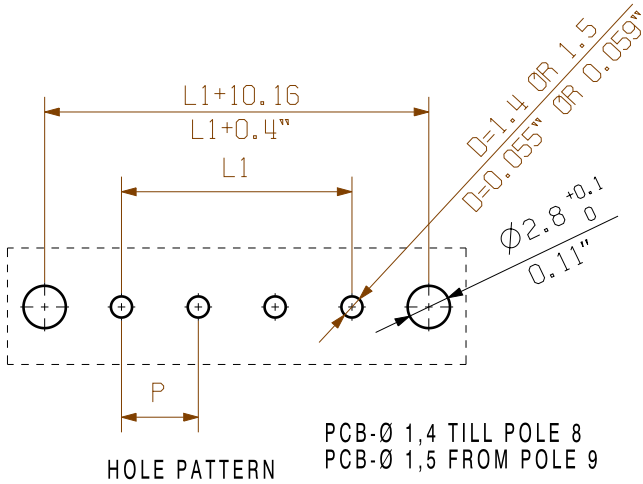
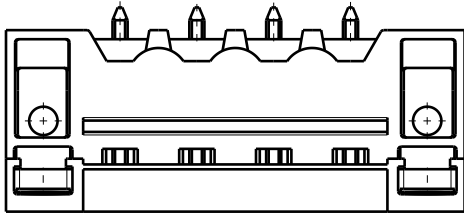
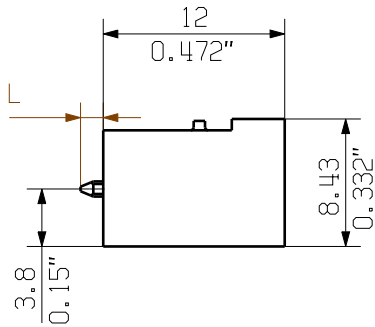
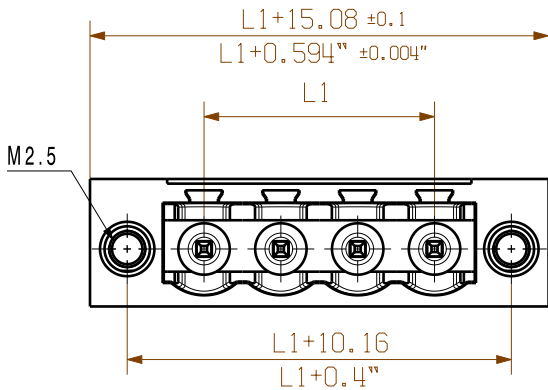


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Dimensions without tolerances are no check dimensions

The English version is binding



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

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.