

Weidmüller Interface GmbH & Co. KG Klingenbergstraße 26

D-32758 Detmold Germany

www.weidmueller.com

Product image





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

| Version | PCB plug-in connector, male header, closed side, THT solder connection, 5.08 mm, Number of poles: 10, 90°, Solder pin length (I): 3.2 mm, tinned, orange, Box |
|--------------|--|
| Order No. | <u>1147530000</u> |
| Туре | SL 5.08HC/10/90G 3.2SN OR BX |
| GTIN (EAN) | 4050118051193 |
| Qty. | 50 pc(s). |
| Product data | IEC: 400 V / 24 A UL: 300 V / 18.5 A |
| Packaging | Box |

Creation date January 11, 2022 12:06:50 AM CET



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Technical data

| Depth | 12 mm | Depth (inches) | 0.472 inch |
|--------------------------|------------|-----------------|------------|
| Height | 11.7 mm | Height (inches) | 0.461 inch |
| Height of lowest version | 8.5 mm | Width | 54 mm |
| Width (inches) | 2.126 inch | Net weight | 4.26 g |

System specifications

| Product family | OMNIMATE Signal - series BL/SL 5.08 |
|---------------------------------|--|
| Mounting onto the PCB | THT solder connection |
| Pitch in inches (P) | 0.2 inch |
| Number of poles | 10 |
| Solder pin length (I) | 3.2 mm |
| Solder pin dimensions | d = 1.2 mm, Octagonal |
| Solder eyelet hole diameter (D) | 1.3 mm |
| L1 in mm | 45.72 mm |
| Number of rows | 1 |
| Protection degree | IP20 |
| Can be coded | Yes |
| Pulling force/pole, max. | 7.5 N |
| | |

| Type of connection | |
|---|------------------|
| | Board connection |
| Pitch in mm (P) | 5.08 mm |
| Outgoing elbow | 90° |
| Number of solder pins per pole | 1 |
| Solder pin length tolerance | +0.1 / -0.3 mm |
| Solder pin dimensions = d tolerance | 0 / -0,03 mm |
| Solder eyelet hole diameter tolerance (| D)+ 0,1 mm |
| L1 in inches | 1.8 inch |
| Pin series quantity | 1 |
| Volume resistance | ≤5 mΩ |
| Plugging force/pole, max. | 10 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 | 13 µm Ni / 24 µm Sn matt | Layer structure of plug contact | 13 µm Ni / 24 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 | | Rated current, min. number of poles | |
|---|------------------------|---|-------|
| | IEC 60664-1, IEC 61984 | (Tu=20°C) | 24 A |
| Rated current, max. number of poles | | Rated current, min. number of poles | |
| (Tu=20°C) | 19 A | (Tu=40°C) | 21 A |
| Rated current, max. number of poles | | Rated voltage for surge voltage class / | |
| (Tu=40°C) | 16.5 A | pollution degree II/2 | 400 V |
| Rated voltage for surge voltage class / | 320 V | Rated voltage for surge voltage class / | 250 V |
| pollution degree III/2 | 320 V | 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 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 |





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| Institute (cURus) | | Certificate No. (cURus) | |
|---------------------------------------|--|--|---|
| | | | |
| | C 77 US | | E60693 |
| Rated voltage (Use group B / UL 1059) | 300 V | Rated voltage (Use group D / UL 1059) | |
| Rated current (Use group B / UL 1059) | | Rated current (Use group D / UL 1059) | |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |
| Packing | | | |
| | _ | | |
| Packaging | Box | VPE length | 168 mm |
| VPE width | 118 mm | VPE height | 38 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 9.0 ECLASS 10.0 | 27-44-04-02 |
| ECLASS 11.0 | 27-44-04-02 | | 27-44-04-02 |
| Important note | | | |
| | | | |
| | | | |
| IPC conformity | standards and norms and comply | reloped, manufactured and delivered according / with the assured properties in the data sheet r lass 2". Further claims on the products can be c | esp. fulfill decorative propertie |
| | standards and norms and comply | | esp. fulfill decorative propertie |
| IPC conformity Notes | standards and norms and comply in accordance with IPC-A-610 "Cl | v with the assured properties in the data sheet r lass 2". Further claims on the products can be e | esp. fulfill decorative propertie |
| | standards and norms and comply in accordance with IPC-A-610 "Cl • Additional colours on request | v with the assured properties in the data sheet r lass 2". Further claims on the products can be e | esp. fulfill decorative propertie |
| | standards and norms and comply in accordance with IPC-A-610 "Cl • Additional colours on request • Gold-plated contact surfaces o | v with the assured properties in the data sheet r lass 2". Further claims on the products can be e | esp. fulfill decorative properti |
| | standards and norms and comply in accordance with IPC-A-610 "Cl Additional colours on request Gold-plated contact surfaces o Rated current related to rated o P on drawing = pitch Rated data refer only to the colour | v with the assured properties in the data sheet r lass 2". Further claims on the products can be e | resp. fulfill decorative properti evaluated on request. |
| | standards and norms and comply in accordance with IPC-A-610 "Cl Additional colours on request Gold-plated contact surfaces o Rated current related to rated o P on drawing = pitch Rated data refer only to the con be designed in accordance with | with the assured properties in the data sheet r lass 2". Further claims on the products can be e n request cross-section & min. No. of poles. | esp. fulfill decorative properti evaluated on request. eves to other components are t |
| Notes | standards and norms and comply in accordance with IPC-A-610 "Cl Additional colours on request Gold-plated contact surfaces o Rated current related to rated o P on drawing = pitch Rated data refer only to the con be designed in accordance with | with the assured properties in the data sheet r lass 2". Further claims on the products can be e n request cross-section & min. No. of poles. mponent itself. Clearance and creepage distance th the relevant application standards. | esp. fulfill decorative properti evaluated on request. eves to other components are t |
| Notes | standards and norms and comply in accordance with IPC-A-610 "Cl Additional colours on request Gold-plated contact surfaces o Rated current related to rated o P on drawing = pitch Rated data refer only to the con be designed in accordance wit Long term storage of the product | with the assured properties in the data sheet in lass 2". Further claims on the products can be e n request cross-section & min. No. of poles. mponent itself. Clearance and creepage distance th the relevant application standards. uct with average temperature of 50 °C and aver | esp. fulfill decorative properti evaluated on request. eves to other components are t |
| Notes | standards and norms and comply in accordance with IPC-A-610 "Cl Additional colours on request Gold-plated contact surfaces o Rated current related to rated o P on drawing = pitch Rated data refer only to the con be designed in accordance wit Long term storage of the product | with the assured properties in the data sheet in lass 2". Further claims on the products can be e n request cross-section & min. No. of poles. mponent itself. Clearance and creepage distance th the relevant application standards. uct with average temperature of 50 °C and aver | esp. fulfill decorative properti evaluated on request. eves to other components are t |
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Technical data



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| Downloads | |
|----------------------------------|---------------------------------|
| | |
| Approval/Certificate/Document of | |
| Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Product Change Notification | EN - Change of packaging |
| | DE - Change of packaging |
| 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 |
| | FL MACHINE SAFETY EN |
| | 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 |

Drawings

Product image



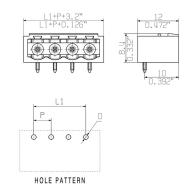


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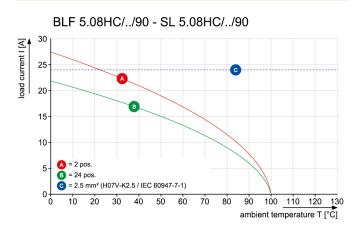
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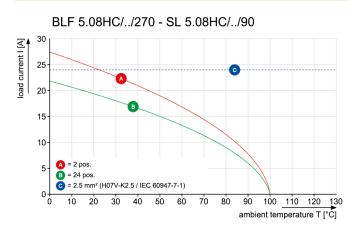
Dimensional drawing



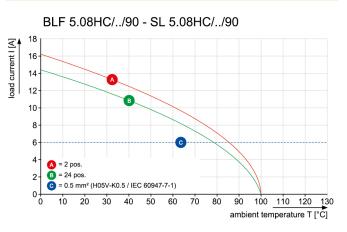
Graph



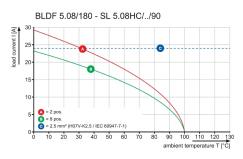
Graph



Graph



Graph



Accessories

LED Light guides



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Effective: the link between LED and front panel.

Floodlight indicators allow users to monitor the switching states without requiring a special design: optical plastic directs the light from standard LEDs around a bend into the connectors or through the front plate.

The fibre-optic elements are simply clipped behind the relevant 90° bend male connectors (90° outlet direction). Versions with different incoming light beam heights achieve maximum light efficiency for LEDs with different designs or heights.

The advantages compared to conventional solutions:

- No additional LED circuit board required behind the front panel
- No "long-legged" LEDs with separate mounting required
- Bent fibre-optic cable line for maximum light efficiency
- · Uncomplicated front plate bore holes due to circular shape of outgoing light beam
- · Easy to maintain correct clearance and creepage distance
- Can be partitioned for smaller pole numbers

The result: simplified manufacturing process, reduced costs and simplified design

General ordering data

| | J | | | |
|------------|-------------------|---|--------------|-----------|
| Туре | SL FLA 9.0/1 | Version | Product data | Packaging |
| Order No. | <u>1580120000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190031909 | Number of poles: 1 | | |
| Qty. | 100 pc(s). | | | |
| Туре | SL FLA 1.5/24 | Version | Product data | |
| Order No. | <u>1595850000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | |
| GTIN (EAN) | 4008190092573 | Number of poles: 1 | | |
| Qty. | 10 pc(s). | | | |
| Туре | SL FLA 9.0/24 | Version | Product data | |
| Order No. | <u>1595870000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | |
| GTIN (EAN) | 4008190079796 | Number of poles: 1 | | |
| Qty. | 10 pc(s). | | | |
| Туре | SL FLA 3.8/24 | Version | Product data | |
| Order No. | <u>1595860000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | |
| GTIN (EAN) | 4008190140892 | Number of poles: 1 | | |
| Qty. | 10 pc(s). | | | |
| Туре | SL FLA 2,3/24 | Version | Product data | Packaging |
| Order No. | <u>1636680000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190409968 | Number of poles: 1 | | |
| Qty. | 10 pc(s). | | | |
| Туре | SL FLA 1.5/1 | Version | Product data | Packaging |
| Order No. | <u>1580100000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, | | Box |
| GTIN (EAN) | 4008190152475 | Number of poles: 1 | | |
| Qty. | 100 pc(s). | | | |
| | | | | |

Accessories

SL 5.08HC/10/90G 3.2SN OR BX



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Packaging Туре SL FLA 2,3/1 Version Product data Order No. 1636670000 PCB plug-in connector, Accessories, Flood-light display, Transparent, Box GTIN (EAN) 4008190409975 Number of poles: 1 Qty. 100 pc(s). Туре SL FLA 3.8/1 Version Product data Packaging 1580110000 Order No. PCB plug-in connector, Accessories, Flood-light display, Transparent, Box GTIN (EAN) 4008190050740 Number of poles: 1 100 pc(s). Qty.

Additional accessories



No task is too small when creating the perfect solution. br />

Connections form just one part of the overall process. Small details are often the key to the perfect solution in applications where potentials are tested, grouped or even isolated.

A system is not a system without small but useful details:

- Test plugs ensure reliable pick-up from diagnostic sockets
- Cross-connectors ensure a stable electrical distribution contact directly at the connection
- Compartment partition elements divide a large number of male connectors into several separate socket connector channels
- Locks and clips optional vibration-resistant clipon connection or mounting for male and female connectors

In tandem with the manufacturing process and application - more accessories = smaller workload

General ordering data

| General | oracing data | | | |
|------------|-------------------|---|--------------|-----------|
| Туре | SL AT SW | Version | Product data | Packaging |
| Order No. | <u>1770240000</u> | PCB plug-in connector, Accessories, Spacer, black, Number of poles: | 1 | Box |
| GTIN (EAN) | 4032248117710 | | | |
| Qty. | 100 pc(s). | | | |
| Туре | SL AT OR | Version | Product data | Packaging |
| Order No. | <u>1598300000</u> | PCB plug-in connector, Accessories, Spacer, orange, Number of pole | s: | Box |
| GTIN (EAN) | 4008190189266 | 1 | | |
| Qty. | 100 pc(s). | | | |



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Accessories

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery. Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

| Туре | BLZ/SL KO BK BX | Version | Product data | Packaging |
|-------------------|-------------------------------|--|--------------|------------------|
| Order No. | <u>1545710000</u> | PCB plug-in connector, Accessories, Coding element, black, Number | | Box |
| GTIN (EAN) | 4008190087142 | of poles: 1 | | |
| Qty. | 50 pc(s). | | | |
| | | | | |
| Туре | BLZ/SL KO OR BX | Version | Product data | Packaging |
| Type Order No. | BLZ/SL KO OR BX 1573010000 | Version PCB plug-in connector, Accessories, Coding element, orange, Numbe | | Packaging Box |
| | | | | |

Blocks for PCB mounting



Minor component, major effect:

Clip-on attachment elements increase the mechanical resilience of the whole plug connection by

- securing the male connectors to the circuit board
- providing a vibration-proof connection between the sockets and the male connectors

Clip-on or pre-assembled - always the right solution:

- Hard-wearing, precise fitting dovetail joint
- Hard-wearing metal threaded inserts
- Suitable for all outlet directions

Maximum stability, minimum effort:

- Extremely resilient for frequent fastening operations
- Complete set for easy selection

The result: soldering points, contacts and overall module are more resilient against mechanical stress such as vibrations and tensile loads.

General ordering data

| Туре | SLA BB11R OR | Version | Product data | Packaging |
|------------|-------------------|---|----------------------|-----------|
| Order No. | <u>1604120000</u> | PCB plug-in connector, Accessories, Mounting bl | lock, orange, Number | Box |
| GTIN (EAN) | 4008190182977 | of poles: 1 | | |
| Otv | 20 pc(s) | | | |

Creation date January 11, 2022 12:06:50 AM CET



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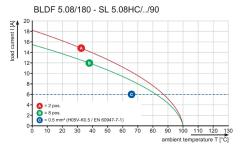
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Accessories

| Туре | SLA BB11R SW | Version | Product data | Packaging |
|------------|-------------------|--|--------------|-----------|
| Order No. | <u>1692340000</u> | PCB plug-in connector, Accessories, Mounting block, black, Number of | of | Box |
| GTIN (EAN) | 4008190864965 | poles: 1 | | |
| Qty. | 20 pc(s). | | | |

Drawings

Graph





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Wave Solder Profile

Recommended wave solderding profiles

Weidmüller 🟵

Weidmüller Interface GmbH & Co. KG

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Double Wave:

Single 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.

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