

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold

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**

| Туре         | SL 5.08HC/06/90B 3.2SN BK BX  |
|--------------|---|
| Order No.    | <u>1155620000</u>   |
| Version      | PCB plug-in connector, male header, Dovetails for fixing blocks, THT solder connection, 5.08 mm, Number of poles: 6, 90°, Solder pin length (I): 3.2 mm, tinned, black, Box |
| GTIN (EAN)   | 4050118050318   |
| Qty.         | 50 pc(s).   |
| Product data | IEC: 400 V / 24 A<br>UL: 300 V / 18.5 A   |
| Packaging    | Вох   |

Creation date May 2, 2020 8:21:39 AM CEST



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## **Technical data**

#### **Dimensions and weights**

| Width                    | 32.24 mm   | Width (inches)  | 1.269 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      | 2.54 g     |

#### **System specifications**

| Product family                          | OMNIMATE Signal - series<br>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°                   |
| Number of poles                         | 6                                      | Number of solder pins per pole  | 1                     |
| Solder pin length (I)                   | 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                        | 25.4 mm               |
| L1 in inches                            | 1 inch                                 | Number of rows                  | 1                     |
| Pin series quantity                     | 1                                      | Volume resistance               | ≤ 5mΩ                 |
| 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                                | black                         |
|---------------------------------------|-------------------------------|---------------------------------------|-------------------------------|
| Colour chart (similar)                | RAL 9011                      | 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<br>matt | Layer structure of plug contact       | 1-3 µm Ni / 2-4 µm Sn<br>matt |
| Storage temperature, min.             | -25 ℃                         | Storage temperature, max.             | 50 °C                         |
| Max. relative humidity during storage | 70 %                          | 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 (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                        |                        | Rated impulse voltage for surge voltage                        |       |
| class/ pollution degree II/2                                   | 4 kV                   | 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  |



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## **Technical data**

| Rated data acc. to UL 1059            |  |  |                             |
|---------------------------------------|--|--|-----------------------------|
| Institute (cURus)                     | <b></b>  | Certificate No. (cURus)                        |                             |
|                                       | C TOUS   |  | 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<br>maximum values, details -<br>see approval certificate.   |  |                             |
| Packing                               |  |  |                             |
| D. J                                  | n  | VDE  | 40                          |
| Packaging VPE width                   | Box<br>70 mm   | VPE length<br>VPE height                       | 40 mm<br>165 mm             |
| VPE WIGHT                             | 70 111111  | VFE Height                                     | 100 11111                   |
| 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  | 0000000.1                                      | 27 44 04 02                 |
|                                       |  |  |                             |
|                                       |  |  |                             |
| Notes                                 | Additional colours on request  |  |                             |
|                                       | Gold-plated contact surfaces or  | n request                                      |                             |
|                                       | Rated current related to rated contained to rated contained to rate of the related to | cross-section & min. No. of poles.             |                             |
|                                       | • P on drawing = pitch   |  |                             |
|                                       | Rated data refer only to the cor   | mponent itself. Clearance and creepage distanc | ces to other components are |

#### **Approvals**

IPC conformity

Approvals



be designed in accordance with the relevant application standards.

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.

ROHS



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## **Technical data**

#### **Downloads**

| Declaration of the Manufacturer |
|---------------------------------|
| FL DRIVES EN                    |
| MB DEVICE MANUF. EN             |
| FL DRIVES DE                    |
| CAT 2 PORTFOLIOGUIDE EN         |
| <u>FL BUILDING SAFETY EN</u>    |
| FL APPL LED LIGHTING EN         |
| FL INDUSTR.CONTROLS EN          |
| FL MACHINE SAFETY EN            |
| FL HEATING ELECTR EN            |
| FL APPL_INVERTER EN             |
| <u>FL_BASE_STATION_EN</u>       |
| <u>FL ELEVATOR EN</u>           |
| FL POWER SUPPLY EN              |
| FL 72H SAMPLE SER EN            |
| PO OMNIMATE EN                  |
| <u>STEP</u>                     |
| EN - Change of packaging        |
| DE - Change of packaging        |
|                                 |



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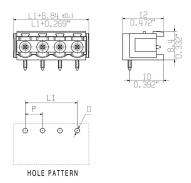
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### **Drawings**

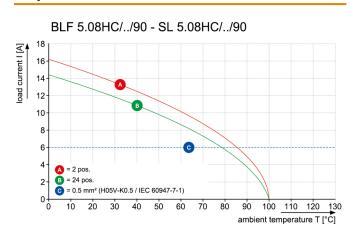
#### **Dimensional drawing**



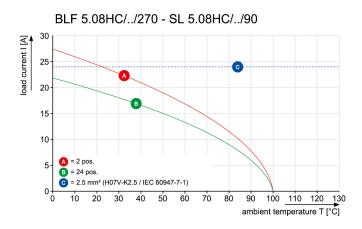
#### Graph

#### BLF 5.08HC/../90 - SL 5.08HC/../90 30 oad current I [A] 25 20 15 10 A = 2 pos. B = 24 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]

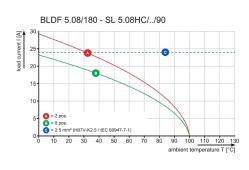
#### Graph



#### Graph



#### Graph





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### Mating connector (fully pluggable)

#### **BLDF 5.08/180 SN**



The powerful daisy-chain solution for high-performance signal bus applications is also suitable for 400V auxiliary power chains with 18.5A current-carrying capacity. The large clamping capacity (up to 2.5mm² wire cross-sections) is particularly beneficial for long bus cables or high currents because of the low voltage drop. Four flange variations, including the patented release latch, allow for user-friendly unplugging designs.

#### **General ordering data**

| Туре              | BLDF 5.08/06/180 SN OR               | Version  | Product data  | Packaging        |
|-------------------|--------------------------------------|--|---|------------------|
| Order No.         | <u>1001190000</u>                    | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,             | IEC: 400 V / 20.8 A / 0.2 - 2.5 mm <sup>2</sup>                 | Box              |
| GTIN (EAN)        | 4032248818174                        | 180°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm <sup>2</sup> | , UL: 300 V / 18.5 A / AWG 12 - AWG                             |                  |
| Qty.              | 40 pc(s).                            | Вох  | 26  |                  |
|                   |                                      |  |   |                  |
| Туре              | BLDF 5.08/06/180 SN BK               | Version  | Product data  | Packaging        |
| Type<br>Order No. | BLDF 5.08/06/180 SN BK<br>1000900000 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,     | Product data<br>IEC: 400 V / 20.8 A / 0.2 - 2.5 mm <sup>2</sup> | Packaging<br>Box |
| • •               |                                      |  | IEC: 400 V / 20.8 A / 0.2 - 2.5 mm <sup>2</sup>                 | Вох              |

#### **BLC 5.08R**



Female plugs with crimp wire connection system. The female plugs provide space for labelling and can be coded.

| Туре              | BLC 5.08/06/180R BK BX               | Version  | Product data                      | Packaging        |
|-------------------|--------------------------------------|--|-----------------------------------|------------------|
| Order No.         | <u>1712000000</u>                    | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,         | IEC: 400 V / 21 A                 | Box              |
| GTIN (EAN)        | 4008190935016                        | 180°, Crimp connection, Clamping range, max. : 2.5 mm², Box              | UL: 300 V / 10 A / AWG 26 - AWG 1 | 4                |
| Qty.              | 50 pc(s).                            |  |                                   |                  |
|                   |                                      |  |                                   |                  |
| Туре              | BLC 5.08/06/180R OR BX               | Version  | Product data                      | Packaging        |
| Type<br>Order No. | BLC 5.08/06/180R OR BX<br>1610530000 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | Product data<br>IEC: 400 V / 21 A | Packaging<br>Box |
|                   | , ,                                  |  |                                   | Box              |



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### Mating connector (fully pluggable)

#### **BLL 5.08/180**



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

#### General ordering data

| Туре       | BLL 5.08/06/180 3.2 SN | Version   | Product data      | Packaging |
|------------|------------------------|---|-------------------|-----------|
| Order No.  | <u>1630750000</u>      | PCB plug-in connector, female header, closed side, THT solder         | IEC: 400 V / 23 A | Box       |
| GTIN (EAN) | 4008190204174          | connection, 5.08 mm, Number of poles: 6, 180°, Solder pin length (I): | UL: 300 V / 15 A  |           |
| Qty.       | 60 pc(s).              | 3.2 mm, tinned, orange, Box   |                   |           |

#### **BLF 5.08HC/270 SN**



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

| Туре              | BLF 5.08HC/06/270 SN OR               | Version  | Product data  | Packaging        |
|-------------------|---------------------------------------|--|---|------------------|
| Order No.         | 1982740000                            | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,             | IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>                 | Box              |
| GTIN (EAN)        | 4032248686834                         | 270°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm <sup>2</sup> | , UL: 300 V / 18.5 A / AWG 26 - AWG                           |                  |
| Qty.              | 60 pc(s).                             | Box  | 12  |                  |
|                   |                                       |  |   |                  |
| Туре              | BLF 5.08HC/06/270 SN BK               | Version  | Product data  | Packaging        |
| Type<br>Order No. | BLF 5.08HC/06/270 SN BK<br>1981970000 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,     | Product data<br>IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup> | Packaging<br>Box |
|                   | , ,                                   |  | IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>                 | Box              |



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### Mating connector (fully pluggable)

#### **BLL 5.08/180B**



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

#### **General ordering data**

| Туре       | BLL 5.08/06/180B 3.2SN | Version  | Product data      | Packaging |
|------------|------------------------|--|-------------------|-----------|
| Order No.  | <u>1682770000</u>      | PCB plug-in connector, female header, Dovetails for fixing blocks, THT | IEC: 400 V / 23 A | Box       |
| GTIN (EAN) | 4008190474539          | solder connection, 5.08 mm, Number of poles: 6, 180°, Solder pin       | UL: 300 V / 15 A  |           |
| Qty.       | 54 pc(s).              | length (I): 3.2 mm, tinned, orange, Box                                |                   |           |

#### **BLZP 5.08HC/225B SN**



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

| Туре       | BLZP 5.08HC/06/225B SN | Version   | Product data                                  | Packaging |
|------------|------------------------|---|---|-----------|
| Order No.  | <u>1945790000</u>      | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,  | IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup> | Box       |
| GTIN (EAN) | 4032248621262          | 225°, Clamping yoke connection, Clamping range, max. : 4 mm², Box | UL: 300 V / 15 A / AWG 26 - AWG 12            | 2         |
| Qty.       | 54 pc(s).              |   |   |           |
| Туре       | BLZP 5.08HC/06/225B SN | Version   | Product data                                  | Packaging |
| Order No.  | 1946020000             | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,  | IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup> | Box       |
| GTIN (EAN) | 4032248621552          | 225°, Clamping yoke connection, Clamping range, max. : 4 mm², Box | UL: 300 V / 15 A / AWG 26 - AWG 12            | 2         |
|            |                        |   |   |           |



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### Mating connector (fully pluggable)

#### **BLZP 5.08HC/90 SN**



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### **General ordering data**

| Туре       | BLZP 5.08HC/06/90 SN BK               | Version  | Product data  | Packaging        |
|------------|---------------------------------------|--|---|------------------|
| Order No.  | <u>1948280000</u>                     | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,         | IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>                 | Box              |
| GTIN (EAN) | 4032248624805                         | 90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box         | UL: 300 V / 20 A / AWG 26 - AWG 1:                          | 2                |
| Qty.       | 60 pc(s).                             |  |   |                  |
| _          |                                       |  |   |                  |
| Type       | BLZP 5.08HC/06/90 SN OR               | Version  | Product data  | Packaging        |
| Order No.  | BLZP 5.08HC/06/90 SN OR<br>1948040000 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | Product data<br>IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup> | Packaging<br>Box |
| • •        |                                       |  |   | Box              |

#### **BLDT 5.08B**



Female plugs with two clamping-yoke screw connections per pole for wire connections with 90° and 270° outlet directions. The female plugs provide space for labelling and can be coded.

| Туре       | BLDT 5.08/06/-B SN BK BX     | Version  | Product data  | Packaging        |
|------------|------------------------------|--|---|------------------|
| Order No.  | <u>1673820000</u>            | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup>               | Box              |
| GTIN (EAN) | 4008190435554                | 180°, Clamping yoke connection, Clamping range, max. : 3.31 mm², | UL: 300 V / 10 A / AWG 26 - AWG 1:                          | 2                |
| Qty.       | 45 pc(s).                    | Box  |   |                  |
| T          | DI DT E GO (GO ( D GN GD D)( | ·, ·   |   |                  |
| Type       | BLDT 5.08/06/-B SN OR BX     | Version  | Product data  | Packaging        |
| Order No.  | 1651780000                   | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | Product data  IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup> | Packaging<br>Box |
|            | , ,                          |  |   | Вох              |



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### Mating connector (fully pluggable)

#### **BLF 5.08HC/90 SN**



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### **General ordering data**

| Туре              | BLF 5.08HC/06/90 SN OR               | Version   | Product data  | Packaging        |
|-------------------|--------------------------------------|---|---|------------------|
| Order No.         | 1001570000                           | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,                                  | IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>                 | Box              |
| GTIN (EAN)        | 4032248693375                        | $90^{\circ}\text{, PUSH IN, Spring connection, Clamping range, max.} : 3.31 \text{ mm}^2\text{,}$ | UL: 300 V / 18.5 A / AWG 26 - AWG                             |                  |
| Qty.              | 60 pc(s).                            | Box   | 12  |                  |
|                   |                                      |   |   |                  |
| Туре              | BLF 5.08HC/06/90 SN BK               | Version   | Product data  | Packaging        |
| Type<br>Order No. | BLF 5.08HC/06/90 SN BK<br>1000070001 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,                          | Product data<br>IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup> | Packaging<br>Box |
|                   |                                      |   | IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>                 | Box              |

#### **BLDT 5.08**



Female plugs with two clamping-yoke screw connections per pole for wire connections with 90° and 270° outlet directions. The female plugs provide space for labelling and can be coded.

| Туре              | BLDT 5.08/06/- SN OR BX               | Version  | Product data  | Packaging        |
|-------------------|---------------------------------------|--|---|------------------|
| Order No.         | <u>1644770000</u>                     | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,                                 | IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup>                 | Box              |
| GTIN (EAN)        | 4008190283988                         | $180^{\circ}\text{, Clamping yoke connection, Clamping range, max.}: 3.31 \text{mm}^{2}\text{,}$ | UL: 300 V / 10 A / AWG 26 - AWG 1                             | 2                |
| Qty.              | 50 pc(s).                             | Box  |   |                  |
|                   | ,                                     |  |   |                  |
| Туре              | BLDT 5.08/06/- SN BK BX               | Version  | Product data  | Packaging        |
| Type<br>Order No. | BLDT 5.08/06/- SN BK BX<br>1660750000 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,                         | Product data<br>IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup> | Packaging<br>Box |
| • •               | , ,                                   |  | IEC: 400 V / 14 A / 0.2 - 2.5 mm <sup>2</sup>                 | Вох              |



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### Mating connector (fully pluggable)

#### **BLZP 5.08HC/225 SN**



Clamping-yoke connection with right-angled (90° or 270°) or angled (225°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

#### **General ordering data**

| Туре       | BLZP 5.08HC/06/225 SN O | Version  | Product data  | Packaging        |
|------------|-------------------------|--|---|------------------|
| Order No.  | 1946290000              | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,         | IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>                 | Box              |
| GTIN (EAN) | 4032248621866           | 225°, Clamping yoke connection, Clamping range, max. : 4 mm², Box        | UL: 300 V / 15 A / AWG 26 - AWG 12                            | 2                |
| Qty.       | 60 pc(s).               |  |   |                  |
| •          | 1 1 7                   |  |   |                  |
| Туре       | BLZP 5.08HC/06/225 SN B | Version  | Product data  | Packaging        |
|            | ,                       | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | Product data<br>IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup> | Packaging<br>Box |
| Туре       | BLZP 5.08HC/06/225 SN B |  | IEC: 400 V / 17.5 A / 0.2 - 4 mm <sup>2</sup>                 | Box              |

#### **BLC 5.08BR**



Female plugs with crimp wire connection system. The female plugs provide space for labelling and can be coded.

| Туре       | BLC 5.08/06/180BR OR BX      | Version  | Product data                      | Packaging        |
|------------|------------------------------|--|-----------------------------------|------------------|
| Order No.  | <u>1649410000</u>            | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | IEC: 400 V / 21 A                 | Box              |
| GTIN (EAN) | 4008190294526                | 180°, Crimp connection, Clamping range, max. : 2.5 mm², Box      | UL: 300 V / 10 A / AWG 26 - AWG 1 | 4                |
| Qty.       | 50 pc(s).                    |  |                                   |                  |
| Turne      | DI O E 00 (00 (400 DD DIV DV | v ·  |                                   |                  |
| Type       | BLC 5.08/06/180BR BK BX      | Version  | Product data                      | Packaging        |
| Order No.  | 1712150000                   | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | IEC: 400 V / 21 A                 | Packaging<br>Box |
| • •        | , ,                          |  |                                   | Box              |



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Klingenbergstraße 26 D-32758 Detmold

Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

### Mating connector (fully pluggable)

#### **BLF 5.08HC/180 SN**



Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### **General ordering data**

| Туре              | BLF 5.08HC/06/180 SN BK               | Version  | Product data  | Packaging        |
|-------------------|---------------------------------------|--|---|------------------|
| Order No.         | 1013470000                            | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,         | IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>                 | Box              |
| GTIN (EAN)        | 4032248721627                         | 180°, PUSH IN, Tension-clamp connection, Clamping range, max. :          | UL: 300 V / 18.5 A / AWG 26 - AWG                             |                  |
| Qty.              | 60 pc(s).                             | 3.31 mm², Box  | 12  |                  |
|                   |                                       |  |   |                  |
| Туре              | BLF 5.08HC/06/180 SN OR               | Version  | Product data  | Packaging        |
| Type<br>Order No. | BLF 5.08HC/06/180 SN OR<br>1013730000 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | Product data<br>IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup> | Packaging<br>Box |
| • •               | , ,                                   |  | IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup>                 | 0 0              |

#### **BLZP 5.08HC/180 SN**



Female plug with clamping-yoke screw system for connecting wires with straight (180°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. The also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

| Туре              | BLZP 5.08HC/06/180 SN 0               | Version  | Product data  | Packaging        |
|-------------------|---------------------------------------|--|---|------------------|
| Order No.         | 1943620000                            | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,         | IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>                 | Box              |
| GTIN (EAN)        | 4032248617616                         | 180°, Clamping yoke connection, Clamping range, max. : 4 mm², Box        | UL: 300 V / 20 A / AWG 26 - AWG 12                          | 2                |
| Qty.              | 60 pc(s).                             |  |   |                  |
|                   |                                       |  |   |                  |
| Туре              | BLZP 5.08HC/06/180 SN B               | Version  | Product data  | Packaging        |
| Type<br>Order No. | BLZP 5.08HC/06/180 SN B<br>1943850000 | Version PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, | Product data<br>IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup> | Packaging<br>Box |
|                   |                                       |  | IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup>                 | Box              |



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## Mating connector (fully pluggable)

#### **BLL 5.08/90**



Female header for PCB mounting. The solder pin length is optimised for wave flow soldering.

#### **General ordering data**

| Туре       | BLL 5.08/06/90 3.2 SN O | Version  | Product data      | Packaging |
|------------|-------------------------|--|-------------------|-----------|
| Order No.  | <u>1622980000</u>       | PCB plug-in connector, female header, closed side, THT solder        | IEC: 400 V / 23 A | Box       |
| GTIN (EAN) | 4008190279301           | connection, 5.08 mm, Number of poles: 6, 90°, Solder pin length (I): | UL: 300 V / 15 A  |           |
| Qty.       | 60 pc(s).               | 3.2 mm, tinned, orange, Box  |                   |           |

#### **BLZP 5.08HC/270 SN**



Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

| Туре                    | BLZP 5.08HC/06/270 SN B            | Version  | Product data                                | Packaging |
|-------------------------|------------------------------------|--|---|-----------|
| Order No.               | <u>1949060000</u>                  | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,   | IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup> | Box       |
| GTIN (EAN)              | 4032248626519                      | $270^{\circ}\text{, Clamping yoke connection, Clamping range, max.}: 4~\text{mm}^2\text{, Box}$                                    | UL: 300 V / 20 A / AWG 26 - AWG 12          | !         |
| Qty.                    | 60 pc(s).                          |  |   |           |
| Туре                    | BLZP 5.08HC/06/270 SN O            | Version  | Product data                                | Packaging |
|                         |                                    |  |   |           |
| Order No.               | <u>1948830000</u>                  | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6,   | IEC: 400 V / 23 A / 0.2 - 4 mm <sup>2</sup> | Box       |
| Order No.<br>GTIN (EAN) | <u>1948830000</u><br>4032248626281 | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 6, 270°, Clamping yoke connection, Clamping range, max. : 4 mm², Box | , ,   |           |



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## OMNIMATE Signal - series BL/SL 5.08 SL 5.08HC/06/90B 3.2SN BK BX

Klingenbergstraße 26 D-32758 Detmold

Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

### **Accessories**

#### **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.

| Туре       | SLA BB11R OR      | Version  | Product data | Packaging |
|------------|-------------------|--|--------------|-----------|
| Order No.  | <u>1604120000</u> | PCB plug-in connector, Accessories, Mounting block, orange, Number   |              | Box       |
| GTIN (EAN) | 4008190182977     | of poles: 1  |              |           |
| Qty.       | 20 pc(s).         |  |              |           |
| Туре       | SLA BB11R SW      | Version  | Product data | Packaging |
| 1,00       | SLA DD I III SW   | version  | rioduci dala | rackaging |
| Order No.  | <u>1692340000</u> | PCB plug-in connector, Accessories, Mounting block, black, Number of |              | Box       |
|            |                   |  |              | 0 0       |



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Germany

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#### **Accessories**

#### **LED Light guides**



#### 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

| Gonorai    | ordorning data    |   |              |           |
|------------|-------------------|---|--------------|-----------|
| Туре       | SL FLA 3.8/1      | Version   | Product data | Packaging |
| Order No.  | <u>1580110000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, |              | Box       |
| GTIN (EAN) | 4008190050740     | Number of poles: 1  |              |           |
| Qty.       | 100 pc(s).        |   |              |           |
| Туре       | SL FLA 2,3/1      | Version   | Product data | Packaging |
| Order No.  | <u>1636670000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, |              | Box       |
| GTIN (EAN) | 4008190409975     | Number of poles: 1  |              |           |
| Qty.       | 100 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 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).         |   |              |           |
| <br>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).         |   |              |           |
| <br>Туре   | SL FLA 9.0/1      | Version   | Product data | Packaging |
| Order No.  | <u>1580120000</u> | PCB plug-in connector, Accessories, Flood-light display, Transparent, |              | Вох       |
| GTIN (EAN) | 4008190031909     | Number of poles: 1  |              |           |
| Qty.       | 100 pc(s).        |   |              |           |
|            |                   |   |              |           |



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Klingenbergstraße 26 D-32758 Detmold

Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

### **Accessories**

| 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).        |   |              |           |
| 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).         |   |              |           |

#### **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.

| Туре                    | BLZ/SL KO OR BX             | Version   | Product data | Packaging |
|-------------------------|-----------------------------|---|--------------|-----------|
| Order No.               | <u>1573010000</u>           | PCB plug-in connector, Accessories, Coding element, orange, Number            |              | Box       |
| GTIN (EAN)              | 4008190048396               | of poles: 1   |              |           |
| Qty.                    | 100 pc(s).                  |   |              |           |
| 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       |
| Order No.<br>GTIN (EAN) | 1545710000<br>4008190087142 | PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1 |              | Box       |



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Klingenbergstraße 26 D-32758 Detmold

Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

### Accessories

#### **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

| 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 poles:  |              | Box       |
| GTIN (EAN) | 4008190189266     | 1   |              |           |
| Qty.       | 100 pc(s).        |   |              |           |



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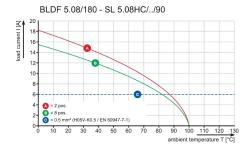
Klingenbergstraße 26 D-32758 Detmold

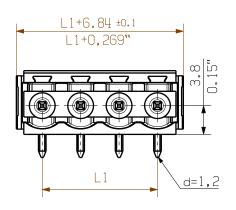
Germany Fon: +49 5231 14-0

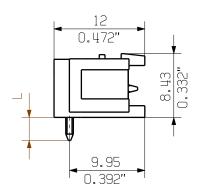
Fax: +49 5231 14-292083 www.weidmueller.com

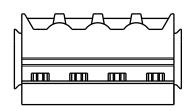
## **Drawings**

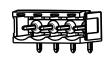
#### Graph











1/1

D=1,4 or 1,5
P
D=0.055" or 0.059"

HOLE PATTERN

PCB-Ø 1,4 TILL POLE 8
PCB-Ø 1,5 FROM POLE 9

24 116,84 23 111,76 22 106,68

 21
 101,60
 4,000

 20
 96,52
 3,800

 19
 91,44
 3,600

 18
 86,36
 3,400

4.600

4,400

4,200

18 86,36 3,400 17 81,28 3,200 16 76,20 3,000 15 71,12 2,800

15 71,12 2,800 14 66,04 2,600 13 60,96 2,400 12 55.88 2,200

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

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

5,08

L1 [mm]

0,200

L1 [inch]

04

7377

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 occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components  $\,$ 

The neccessary creepage and clearance paths must be

observed in connection with the respective applicant in

The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

P = PITCH

alone.

SHOWN: SL 5.08/4/90 B

accordance to IEC 664 / VDE 0110.

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

ROHS DIN ISO 2768-m

## 🏸 Weidmüller 🏂

3 48753

2

n

Cat.no.:.

Drawing no. Issue no Sheet 02 of 05 sheets

|               | Modification |            |          | _ |
|---------------|--------------|------------|----------|---|
|               |              | Date       | Name     | ſ |
|               | Drawn        | 18.10.2010 | HERTEL_S | l |
|               | Responsible  |            | HERTEL_S | l |
| Scale: 2:1    | Checked      | 27.02.2018 | HELIS_MA | l |
| Supersedes: . | Approved     |            | LANG_T   |   |

101482/5 07.02.18 HELIS\_MA

SL 5.08HC/../90...
STIFTLEISTE
MALE HEADER

Product file: SL-HP 5.08



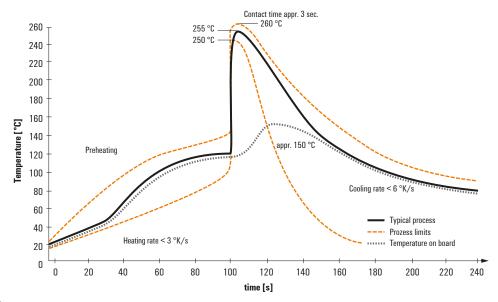
#### Recommended wave solderding profiles

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

#### 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.