

## BLF 2.50/12/180 SN BK BX

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

### Product image



Similar to illustration

PUSH IN - Weidmüller's innovative connection system simplifies the wire connection process.

The benefits for users and applications:

- High component density because of small pitch. Simply insert the prepared wire - and you're done
- Simplified processing, thanks to integrated push buttons for opening the terminal point
- Intuitive handling – since the conductor entry and handling areas are clearly separated

### General ordering data

|              |  |
|--------------|--|
| Version      | PCB plug-in connector, female plug, Pitch in mm (P): 2.50 mm, Number of poles: 12, Box |
| Order No.    | <a href="#">2439750000</a>   |
| Type         | BLF 2.50/12/180 SN BK BX   |
| GTIN (EAN)   | 4050118454925  |
| Qty.         | 75 items   |
| Product data | IEC: 320 V / 6 A / 0.08 - 0.5 mm <sup>2</sup><br>UL: 150 V / 5 A / AWG 28 - AWG 20     |
| Packaging    | Box  |

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## Technical data

## Approvals

Approvals



ROHS Conform

UL File Number Search [UL Website](#)

Certificate No. (cURus) E60693

## Dimensions and weights

|            |          |                 |             |
|------------|----------|-----------------|-------------|
| Depth      | 19.2 mm  | Depth (inches)  | 0.7559 inch |
| Height     | 11.75 mm | Height (inches) | 0.4626 inch |
| Width      | 30.6 mm  | Width (inches)  | 1.2047 inch |
| Net weight | 8.03 g   |                 |             |

## Environmental Product Compliance

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

## System Parameters

|  |                                     |  |                        |
|--|-------------------------------------|--|------------------------|
| Product family                             | OMNIMATE Signal - series BL/SL 2.50 | Type of connection                           | Field connection       |
| Wire connection method                     | PUSH IN with actuator               | Pitch in mm (P)                              | 2.50 mm                |
| Pitch in inches (P)                        | 0.098 "                             | Conductor outlet direction                   | 180°                   |
| Number of poles                            | 12                                  | L1 in mm                                     | 27.50 mm               |
| L1 in inches                               | 10.824 "                            | Number of rows                               | 1                      |
| Pin series quantity                        | 1                                   | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20                               | Protection degree                            | IP20                   |
| Volume resistance                          | <10 mΩ                              | Stripping length                             | 8 mm                   |
| Screwdriver blade standard                 | DIN 5264                            | Plugging cycles                              | 25                     |

## Material data

|                                       |        |                                       |          |
|---------------------------------------|--------|---------------------------------------|----------|
| Insulating material                   | PA     | Colour                                | black    |
| Colour of operational elements        | orange | Colour chart (similar)                | RAL 9011 |
| Comparative Tracking Index (CTI)      | ≥ 600  | Moisture Level (MSL)                  |          |
| UL 94 flammability rating             | V-0    | Contact material                      | Cu-alloy |
| Contact surface                       | tinned | Storage temperature, min.             | -40 °C   |
| Storage temperature, max.             | 70 °C  | Operating temperature, min.           | -40 °C   |
| Operating temperature, max.           | 105 °C | Temperature range, installation, min. | -25 °C   |
| Temperature range, installation, max. | 105 °C |                                       |          |

## Conductors suitable for connection

|   |                      |   |                      |
|---|----------------------|---|----------------------|
| Clamping range, min.                      | 0.08 mm <sup>2</sup> | Clamping range, max.                      | 0.5 mm <sup>2</sup>  |
| Wire connection cross section AWG, min.   | AWG 28               | Wire connection cross section AWG, max.   | AWG 20               |
| Solid, min. H05(07) V-U                   | 0.08 mm <sup>2</sup> | Solid, max. H05(07) V-U                   | 0.5 mm <sup>2</sup>  |
| Stranded, min. H07V-R                     | 0.08 mm <sup>2</sup> | Stranded, max. H07V-R                     | 0.5 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                | 0.08 mm <sup>2</sup> | Flexible, max. H05(07) V-K                | 0.5 mm <sup>2</sup>  |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm <sup>2</sup> | w. wire end ferrule, DIN 46228 pt 1, max. | 0.34 mm <sup>2</sup> |

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**Reference text**

The outside diameter of the plastic collar should not be larger than the pitch (P). Length of ferrules is to be chosen depending on the product and the rated voltage.

### Rated data acc. to IEC

|   |           |   |        |
|---|-----------|---|--------|
| tested acc. to standard   | IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 6 A    |
| Rated current, max. number of poles (Tu=20°C)                             | 6 A       | Rated current, min. number of poles (Tu=40°C)                         | 6 A    |
| Rated current, max. number of poles (Tu=40°C)                             | 6 A       | Rated voltage for surge voltage class / pollution degree II/2         | 320 V  |
| Rated voltage for surge voltage class / pollution degree III/2            | 320 V     | Rated voltage for surge voltage class / pollution degree III/3        | 80 V   |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 2.5 kV    | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV    |   |        |

### Rated data acc. to CSA

|                                   |        |                                   |        |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 150 V  | Rated current (Use group B / CSA) | 5 A    |
| Wire cross-section, AWG, min.     | AWG 28 | Wire cross-section, AWG, max.     | AWG 20 |

### Rated data acc. to UL 1059

|                                       |  |                                       |        |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (cURus)                     | CURUS  | Certificate No. (cURus)               | E60693 |
| Rated voltage (Use group B / UL 1059) | 150 V  | Rated current (Use group B / UL 1059) | 5 A    |
| Wire cross-section, AWG, min.         | AWG 28   | Wire cross-section, AWG, max.         | AWG 20 |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate. |                                       |        |

### Packing

|           |           |            |           |
|-----------|-----------|------------|-----------|
| Packaging | Box       | VPE length | 260.00 mm |
| VPE width | 167.00 mm | VPE height | 56.00 mm  |

### 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**

- Rated current related to rated cross-section & min. No. of poles.
- P on drawing = pitch
- Crimp shape A for wire-end ferrules with crimping tools PZ 1,5 (order no. 9005990000) or PZ 6/5 (order no. 9011460000) for larger wire cross-sections recommended.
- 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.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

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# Technical data

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ETIM 10.0   | EC002638    | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 |             |             |

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Drawings

Product image



Similar to illustration

Dimensional drawing



Graph



Product benefits



Flexible application Outlet direction: 90° and 180°

**Drawings**

**Product benefits**



High component density  
Small and compact pitch

**Product benefits**



PUSH IN connection up to 0.5 mm<sup>2</sup>  
Reliable and space-saving

**Product benefits**



Operating safety  
Through PUSH IN connection system