# BLF 2.50/11/180 SN BK BX

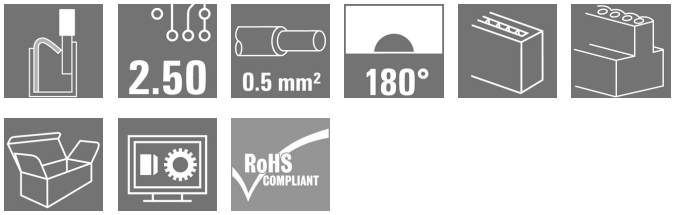
**Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germany

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: 11, Box |
| Order No. | 2439740000 |
| Type | BLF 2.50/11/180 SN BK BX |
| GTIN (EAN) | 4050118454918 |
| Qty. | 100 pc(s). |
| Product data | IEC: 320 V / 6 A / 0.08 - 0.5 mm²<br>UL: 150 V / 5 A / AWG 28 - AWG 20 |
| Packaging | Box |

Creation date December 4, 2023 1:24:11 PM CET

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## Technical data

### Dimensions and weights

| | | | |
|---|---|---|---|
| Depth | 19.2 mm | Depth (inches) | 0.756 inch |
| Height | 11.75 mm | Height (inches) | 0.463 inch |
| Width | 28.1 mm | Width (inches) | 1.106 inch |
| Net weight | 7.29 g | | |

### 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) | 2.5 mm |
| Pitch in inches (P) | 0.098 inch | Conductor outlet direction | 180° |
| Number of poles | 11 | L1 in mm | 25 mm |
| L1 in inches | 9.84 inch | 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 chart (similar) | RAL 9011 | Comparative Tracking Index (CTI) | ≥ 600 |
| 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 mm² | Clamping range, max. | 0.5 mm² |
| Wire connection cross section AWG, min. | AWG 28 | Wire connection cross section AWG, max. | AWG 20 |
| Solid, min. H05(07) V-U | 0.08 mm² | Solid, max. H05(07) V-U | 0.5 mm² |
| Stranded, min. H07V-R | 0.08 mm² | Stranded, max. H07V-R | 0.5 mm² |
| Flexible, min. H05(07) V-K | 0.08 mm² | Flexible, max. H05(07) V-K | 0.5 mm² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm² | w. wire end ferrule, DIN 46228 pt 1, max. | 0.34 mm² |
| 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. | | |

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## Technical data

### 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) | c UL us | 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 | 102 mm |
| VPE width | 72 mm | VPE height | 48 mm |

### Classifications

| | | | |
|---|---|---|---|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | EC002638 | ETIM 9.0 | EC002638 |
| ECLASS 9.0 | 27-44-03-09 | ECLASS 9.1 | 27-44-03-09 |
| ECLASS 10.0 | 27-44-03-09 | ECLASS 11.0 | 27-46-02-02 |
| ECLASS 12.0 | 27-46-02-02 | ECLASS 13.0 | 27460202 |

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## Technical data

### 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.<br>• P on drawing = pitch<br>• 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.<br>• 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.<br>• 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<br>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

### Approvals

| | |
|---|---|
| Approvals | c UL us |
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

### Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN<br>MB DEVICE MANUF. EN<br>FL DRIVES DE<br>FL BUILDING SAFETY EN<br>FL APPL LED LIGHTING EN<br>FL INDUSTR.CONTROLS EN<br>FL MACHINE SAFETY EN<br>FL HEATING ELECTR EN<br>FL APPL_INVERTER EN<br>FL_BASE_STATION_EN<br>FL ELEVATOR EN<br>FL POWER SUPPLY EN<br>FL 72H SAMPLE SER EN<br>PO OMNIMATE EN |

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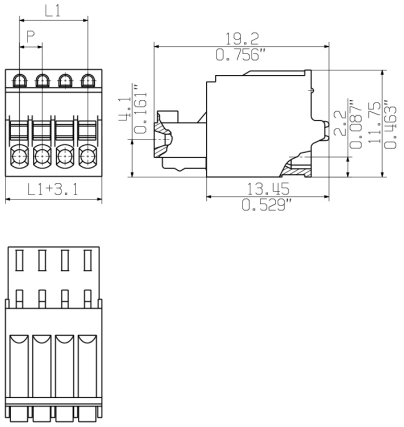
## Drawings

### Product image

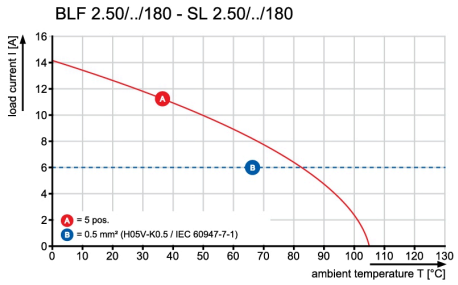


Similar to illustration

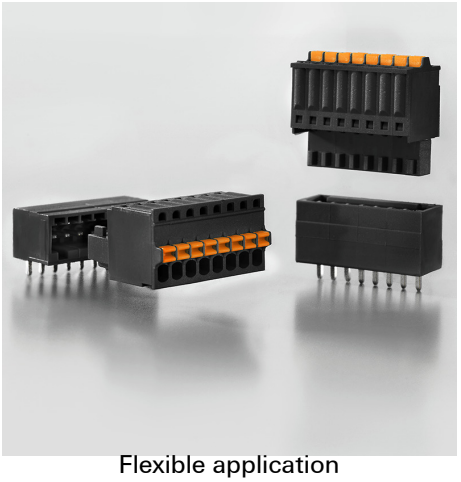
### Dimensional drawing




### Graph

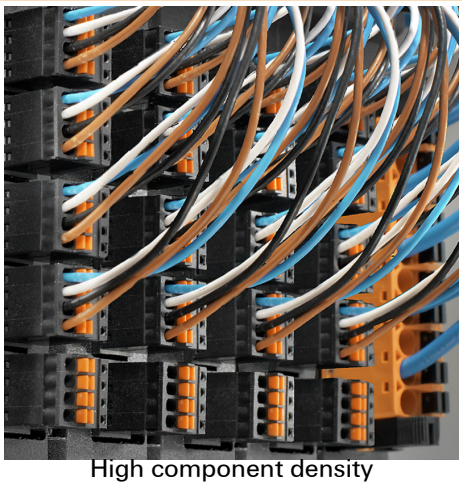



### Product benefits



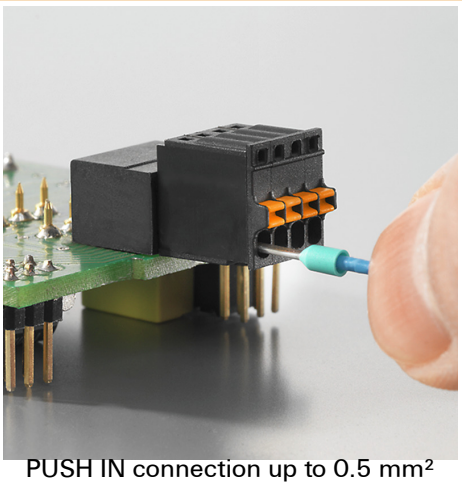
Flexible application
Outlet direction: 90° and 180°

### Product benefits



High component density
Small and compact pitch

### Product benefits



PUSH IN connection up to 0.5 mm²
Reliable and space-saving

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## Drawings

### Product benefits



Operating safety
Through PUSH IN connection system

MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING

WEITERGABE SOWIE VERVIELFAELTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.
ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.
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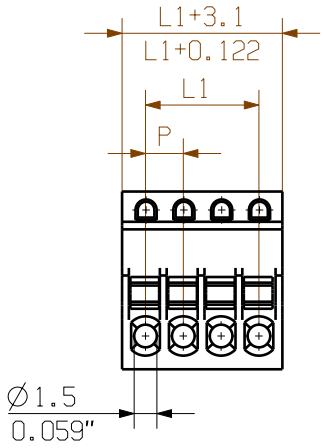
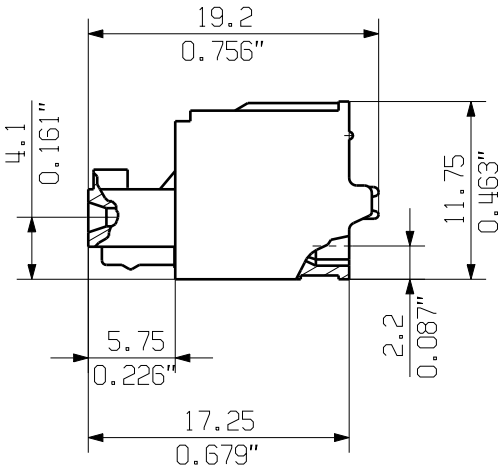
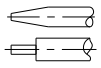
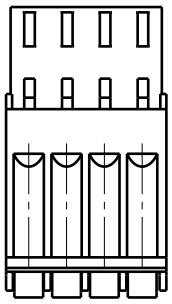
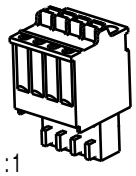


SCREWDRIVER
AND CONDUCTOR
DIRECTION





1:1

| | | |
|---|---|---|
| 12 | 27,50 | 1,083 |
| 11 | 25,00 | 0,984 |
| 10 | 22,50 | 0,886 |
| 9 | 20,00 | 0,787 |
| 8 | 17,50 | 0,689 |
| 7 | 15,00 | 0,591 |
| 6 | 12,50 | 0,492 |
| 5 | 10,00 | 0,394 |
| 4 | 7,50 | 0,295 |
| 3 | 5,00 | 0,197 |
| 2 | 2,50 | 0,098 |
| n | L1 [mm] | L [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 neccessary 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 DIN IEC 326 part 3 very fine.

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

SHOWN: BLF 2.50/04/180

P= 2.50mm RASTER
0,098" PITCH

n = POLZAHL/NO OF POLS

L1 = (n-1)xP

GENERAL TOLERANCE:
DIN ISO 2768-mH

RoHS COMPLIANT

MAX. NRN./NOS.

86555/0
02.03.16 AMANN_A 00

MODIFICATION

CAT.NO.: .

Weidmüller

C 63331 00
DRAWING NO. ISSUE NO.

SHEET 00 OF 00 SHEETS

| | DATE | NAME |
|---|---|---|
| DRAWN | 18.02.2016 | AMANN_A |
| RESPONSIBLE | | AMANN_A |
| CHECKED | 02.03.2016 | HELIS_MA |
| APPROVED | | LANG_T |

SCALE: 2:1

SUPERSEDES: .

# BLF 2.50/02-12/180..

BUCHSENSTECKER
FEMALE PLUG

PRODUCT FILE: SL/BLF 2.50 7414