

BLF 2.50/06/180 SN BK BX

Weidmüller Interface GmbH & Co. KG

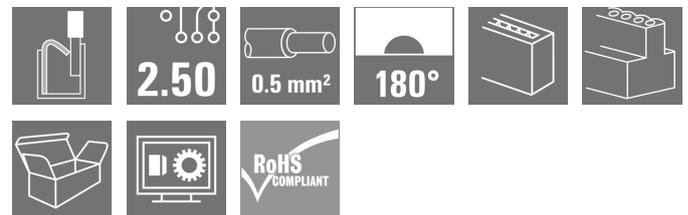
Klingenbergstraße 26

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: 6, Box |
| Order No. | 2439690000 |
| Type | BLF 2.50/06/180 SN BK BX |
| GTIN (EAN) | 4050118454765 |
| Qty. | 175 pc(s). |
| Product data | IEC: 320 V / 6 A / 0.08 - 0.5 mm ² UL: 150 V / 5 A / AWG 28 - AWG 20 |
| Packaging | Box |

Creation date June 13, 2025 2:32:56 AM CEST

Catalogue status 07.06.2025 / We reserve the right to make technical changes.

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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 | 15.6 mm | Width (inches) | 0.614 inch |
| Net weight | 3.726 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 " | Conductor outlet direction | 180° |
| Number of poles | 6 | L1 in mm | 12.5 mm |
| L1 in inches | 4.92 " | 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 mm ² | Clamping range, max. | 0.5 mm ² |
| 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 ² | Solid, max. H05(07) V-U | 0.5 mm ² |
| Stranded, min. H07V-R | 0.08 mm ² | Stranded, max. H07V-R | 0.5 mm ² |
| Flexible, min. H05(07) V-K | 0.08 mm ² | Flexible, max. H05(07) V-K | 0.5 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² | w. wire end ferrule, DIN 46228 pt 1, max. | 0.34 mm ² |
| 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) |  | 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 | 178 mm |
| VPE width | 138 mm | VPE height | 52 mm |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC002638 | ETIM 7.0 | EC002638 |
| ETIM 8.0 | EC002638 | ETIM 9.0 | EC002638 |
| ETIM 10.0 | 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 | 27-46-02-02 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 | | |

Environmental Product Compliance

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

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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 | <ul style="list-style-type: none"> 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 |

Approvals

Approvals



| | |
|-------------------------|---|
| Approvals MAMID | https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/ |
| 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 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 |

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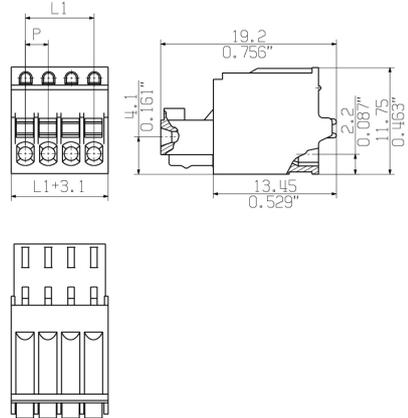
Drawings

Product image

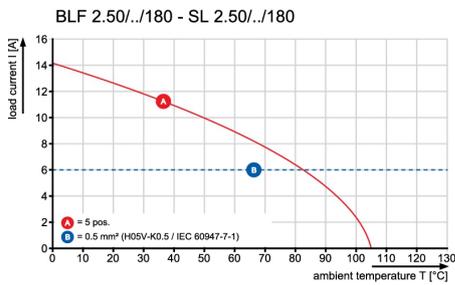


Similar to illustration

Dimensional drawing



Graph

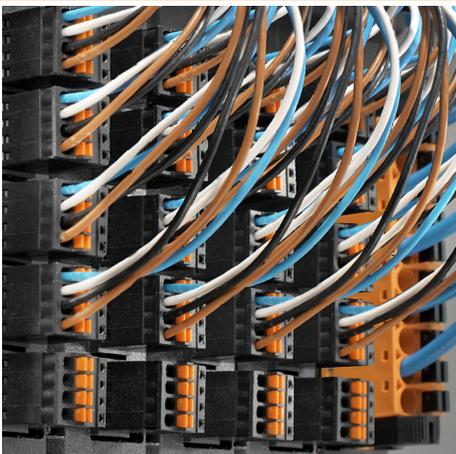


Product benefits



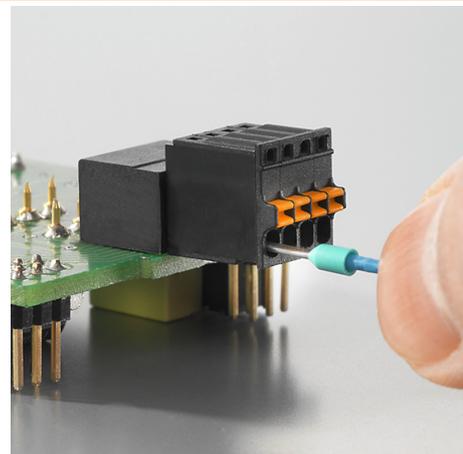
Flexible application
 Outlet direction: 90° and 180°

Product benefits



High component density
 Small and compact pitch

Product benefits



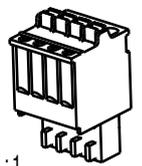
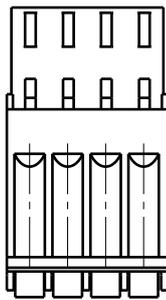
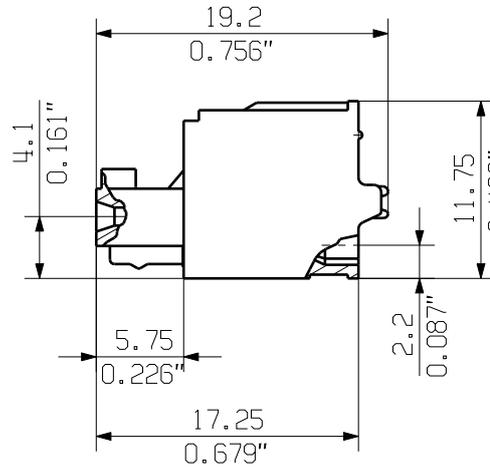
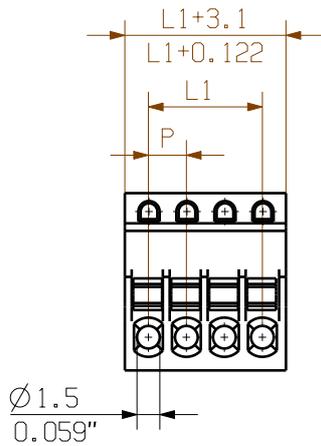
PUSH IN connection up to 0.5 mm²
 Reliable and space-saving

Data sheet**BLF 2.50/06/180 SN BK BX****Weidmüller Interface GmbH & Co. KG**
Klingenbergstraße 26
D-32758 Detmold
Germanywww.weidmueller.com**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



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 necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance with 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 occurring 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



MAX. NRN./NOS.

86555/0
 02.03.16 AMANN_A 00

MODIFICATION

Weidmüller

C 63331 00

DRAWING NO. SHEET 00 OF 00 SHEETS ISSUE NO.



DATE NAME

DRAWN 18.02.2016 AMANN_A

RESPONSIBLE AMANN_A

CHECKED 02.03.2016 HELIS_MA

APPROVED LANG_T

BLF 2.50/02-12/180..
 BUCHSENSTECKER
 FEMALE PLUG

SCALE: 2:1

SUPERSEDES:

PRODUCT FILE: SL/BLF 2.50

7414

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESER DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINER INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTÄTTET. ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN. THE REPRODUCTION, DISTRIBUTION AND UTILIZATION OF THIS DOCUMENT AS WELL AS THE COMMUNICATION OF ITS CONTENTS TO OTHERS WITHOUT EXPLICIT AUTHORIZATION IS PROHIBITED. OFFENDERS WILL BE HELD LIABLE FOR THE PAYMENT OF DAMAGES. WEIDMUELLER EXCLUSIVELY RESERVES THE RIGHT TO FILE FOR PATENTS, UTILITY MODELS OR DESIGNS. WEIDMUELLER INTERFACE GmbH & Co.KG