

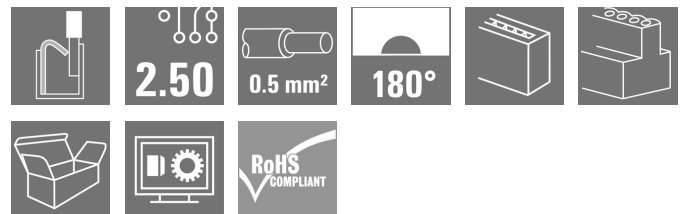
**BLF 2.50/03/180 SN BK BX****Weidmüller Interface GmbH & Co. KG**

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: 3, Box
Order No.	<a href="#">2439650000</a>
Type	BLF 2.50/03/180 SN BK BX
GTIN (EAN)	4050118454628
Qty.	250 pc(s).
Product data	IEC: 320 V / 6 A / 0.08 - 0.5 mm² UL: 150 V / 5 A / AWG 28 - AWG 20
Packaging	Box

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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	8.1 mm	Width (inches)	0.319 inch
Net weight	2.172 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	3	L1 in mm	5 mm
L1 in inches	1.968 "	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 <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>
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	360 mm
VPE width	115 mm	VPE height	110 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	27-46-02-02

## Environmental Product Compliance

REACH SVHC	/
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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"> <li>Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>P on drawing = pitch</li> <li>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.</li> <li>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.</li> <li>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</li> <li>Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cULus)	E60693

**Downloads**

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

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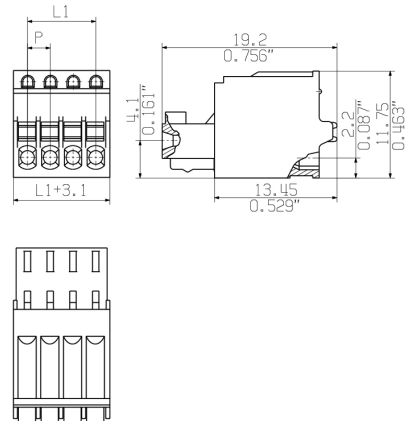
## Drawings

### Product image



Similar to illustration

### Dimensional drawing



### Graph

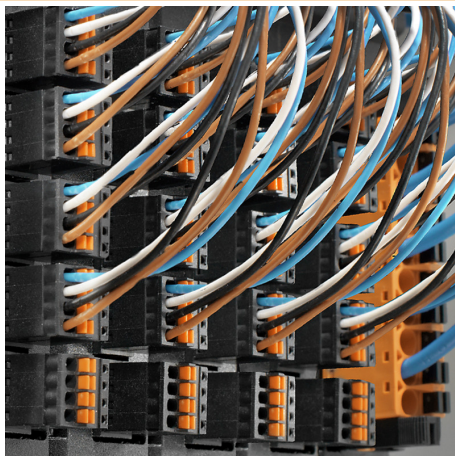


### Product benefits



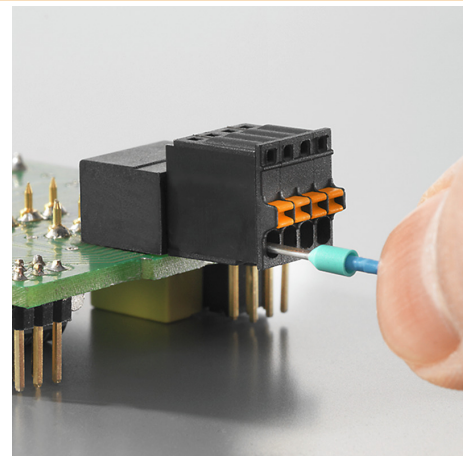
Flexible application  
Outlet direction: 90° and 180°

### 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

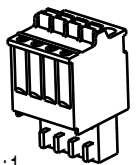
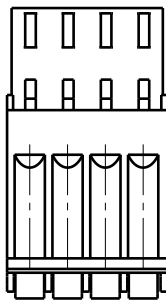
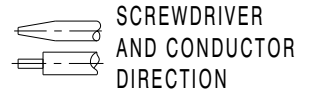
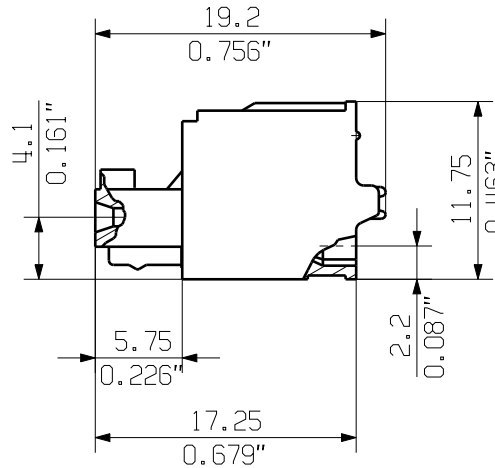
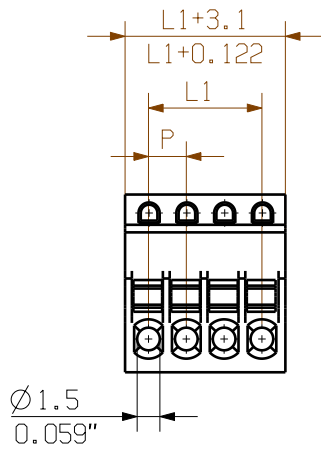


Operating safety  
Through PUSH IN connection system

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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

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 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 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) x P

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]

GENERAL TOLERANCE:  
DIN ISO 2768-mH



MAX. NRN./NOS.

86555/0  
02.03.16 AMANN\_A 00

MODIFICATION

**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