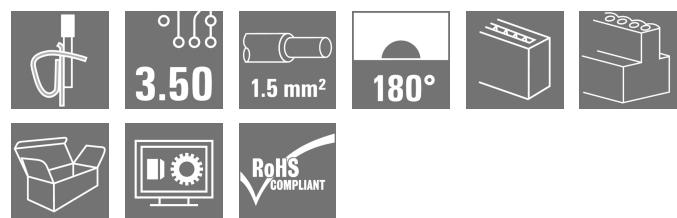
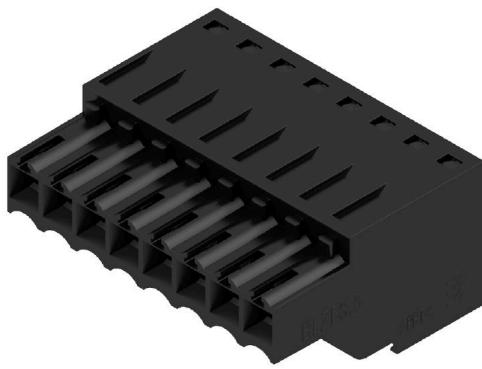


**BLZF 3.50/08/180 SN BK BX**

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

[www.weidmueller.com](http://www.weidmueller.com)

**Do not use product for  
new developments**

**Product image**

Female connectors with tension clamp system for connecting cables in 3.50 pitch. They provide space for labelling and can be coded.

**General ordering data**

Version	PCB plug-in connector, female plug, 3.50 mm, Number of poles: 8, 180°, Tension-clamp connection, Clamping range, max. : 1.5 mm <sup>2</sup> , Box
Order No.	<a href="#">1690480099</a>
Type	BLZF 3.50/08/180 SN BK BX
GTIN (EAN)	4032248893393
Qty.	50 items
Product data	IEC: 320 V / 14.5 A / 0.2 - 1.5 mm <sup>2</sup> UL: 300 V / 10 A / AWG 26 - AWG 14
Packaging	Box
Delivery status	Discontinued
Available until	2025-09-30T00:00:00+02:00
Alternative product	<a href="#">BLF 3.50/08/180 SN BK BX</a>

Creation date 30.12.2025 12:24:56 MEZ

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## Technical data

## Approvals

Approvals



RoHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (UR)	E60693

## Dimensions and weights

Depth	22 mm
Height	13 mm
Width	28 mm
Net weight	8.22 g

Depth (inches)	0.8661 inch
Height (inches)	0.5118 inch
Width (inches)	1.1024 inch

## 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 3.50
Wire connection method	Tension-clamp connection
Pitch in inches (P)	0.138 "
Number of poles	8
L1 in inches	0.965 "
Pin series quantity	1
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Protection degree	IP20, when fully mounted
Can be coded	Yes
Screwdriver blade	0.4 x 2.5
Plugging cycles	25
Pulling force/pole, max.	5 N

Type of connection	Field connection
Pitch in mm (P)	3.50 mm
Conductor outlet direction	180°
L1 in mm	24.50 mm
Number of rows	1
Rated cross-section	1.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Volume resistance	≤5 mΩ
Stripping length	10 mm
Screwdriver blade standard	DIN 5264-A
Plugging force/pole, max.	7 N

## Material data

Insulating material	PBT
Colour chart (similar)	RAL 9011
Comparative Tracking Index (CTI)	≥ 200
UL 94 flammability rating	V-0
Contact surface	tinned
Storage temperature, min.	-40 °C
Operating temperature, min.	-50 °C
Temperature range, installation, min.	-30 °C

Colour	black
Insulating material group	IIIa
Moisture Level (MSL)	
Contact material	Cu-alloy
Layer structure of plug contact	4...8 µm Sn hot-dip tinned
Storage temperature, max.	70 °C
Operating temperature, max.	100 °C
Temperature range, installation, max.	100 °C

## Conductors suitable for connection

Clamping range, min.	0.13 mm <sup>2</sup>
Clamping range, max.	1.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 28

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Wire connection cross section AWG, max. AWG 16

Solid, min. H05(07) V-U 0.2 mm<sup>2</sup>

Solid, max. H05(07) V-U 1.5 mm<sup>2</sup>

Flexible, min. H05(07) V-K 0.2 mm<sup>2</sup>

Flexible, max. H05(07) V-K 1.5 mm<sup>2</sup>

w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm<sup>2</sup> min.

w. plastic collar ferrule, DIN 46228 pt 4, 1 mm<sup>2</sup> max.

w. wire end ferrule, DIN 46228 pt 1, 0.2 mm<sup>2</sup> min.

w. wire end ferrule, DIN 46228 pt 1, 1.5 mm<sup>2</sup> max.

Outer diameter of insulation, max. 2.90 mm

Plug gauge in accordance with EN 60999 a x b; ø 2.4 mm x 1.5 mm

Clampable conductor

Cross-section for conductor connection

Type fine-wired

nominal 0.5 mm<sup>2</sup>

wire end ferrule

Stripping length nominal 12 mm

Recommended wire-end ferrule [H0.5/16 OR](#)

Stripping length nominal 10 mm

Recommended wire-end ferrule [H0.5/10](#)

Cross-section for conductor connection

Type fine-wired

nominal 0.75 mm<sup>2</sup>

wire end ferrule

Stripping length nominal 12 mm

Recommended wire-end ferrule [H0.75/16 W](#)

Stripping length nominal 10 mm

Recommended wire-end ferrule [H0.75/10](#)

Cross-section for conductor connection

Type fine-wired

nominal 1 mm<sup>2</sup>

wire end ferrule

Stripping length nominal 12 mm

Recommended wire-end ferrule [H1.0/16D R](#)

Stripping length nominal 10 mm

Recommended wire-end ferrule [H1.0/10](#)

Cross-section for conductor connection

Type fine-wired

nominal 1.5 mm<sup>2</sup>

wire end ferrule

Stripping length nominal 10 mm

Recommended wire-end ferrule [H1.5/10](#)

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 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	14.5 A
Rated current, max. number of poles (Tu=20°C)	10 A	Rated current, min. number of poles (Tu=40°C)	12 A
Rated current, max. number of poles (Tu=40°C)	8 A	Rated voltage for surge voltage class / pollution degree II/2	320 V
Rated voltage for surge voltage class / pollution degree III/2	160 V	Rated voltage for surge voltage class / pollution degree III/2	160 V

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## Technical data

Rated impulse voltage for surge voltage 2.5 kV  
class/ pollution degree II/2

Rated impulse voltage for surge voltage 2.5 kV  
class/ contamination degree III/3

Rated impulse voltage for surge voltage 2.5 kV  
class/ pollution degree III/2

Short-time withstand current resistance 3 x 1s with 100 A

## Rated data acc. to CSA

Rated voltage (Use group B / CSA) 300 V

Rated current (Use group B / CSA) 10 A

Wire cross-section, AWG, min. AWG 26

Rated voltage (Use group D / CSA) 300 V

Rated current (Use group D / CSA) 10 A

Wire cross-section, AWG, max. AWG 14

## Rated data acc. to UL 1059

Institute (UR) UR

Rated voltage (Use group B / UL 1059) 300 V

Rated current (Use group B / UL 1059) 10 A

Wire cross-section, AWG, min. AWG 26

Reference to approval values Specifications are maximum values, details - see approval certificate.

Certificate No. (UR) E60693

Rated voltage (Use group D / UL 1059) 300 V

Rated current (Use group D / UL 1059) 10 A

Wire cross-section, AWG, max. AWG 14

## Packing

Packaging Box

VPE width 100.00 mm

VPE length 117.00 mm

VPE height 62.00 mm

## Type tests

Test: Durability of markings	Standard	DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96
	Test	mark of origin, type identification, rated voltage, rated cross-section, pitch, type of material, approval marking SEV, approval marking CSA
	Evaluation	available
	Test	approval marking UL
	Evaluation	on packaging label
	Test	durability
	Evaluation	passed
Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.99
	Conductor type	Type of conductor solid 0.2 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor solid 1.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 1.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor AWG 28/1 and conductor cross-section
		Type of conductor AWG 28/19 and conductor cross-section
		Type of conductor AWG 16/1 and conductor cross-section

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## Technical data

		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	
Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00	
	Requirement	0.2 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 28/1
		Type of conductor and conductor cross-section	AWG 28/19
	Evaluation	passed	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>
	Evaluation	passed	
	Requirement	0.4 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 1.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 16/1
		Type of conductor and conductor cross-section	AWG 16/19
	Evaluation	passed	
Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥ 5 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1
		Type of conductor and conductor cross-section	AWG 28/19
	Evaluation	passed	
	Requirement	≥ 10 N	
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.2
	Evaluation	passed	
	Requirement	≥ 20 N	
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.5
	Evaluation	passed	
	Requirement	≥ 40 N	
	Conductor type	Type of conductor and conductor cross-section	H05V-U1.5
		Type of conductor and conductor cross-section	H05V-K1.5

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## Technical data

	Type of conductor and conductor cross-section	AWG 16/1
	Type of conductor and conductor cross-section	AWG 16/19
Evaluation	passed	

## 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 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.
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Max. outer diameter of the conductor: 2.9 mm
- Wire end ferrule without plastic collar to DIN 46228/1
- Wire end ferrule with plastic collar to DIN 46228/4
- 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.
- P on drawing = pitch
- 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

## 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		

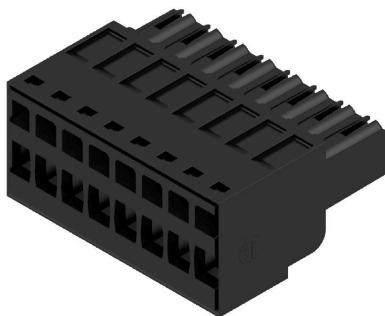
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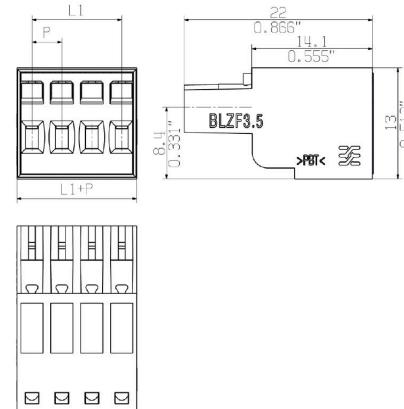
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## Drawings

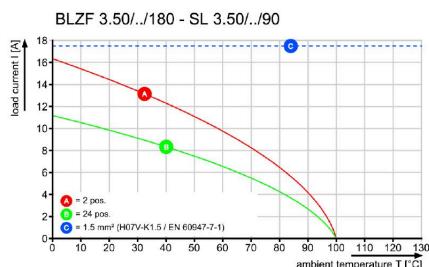
## Product image



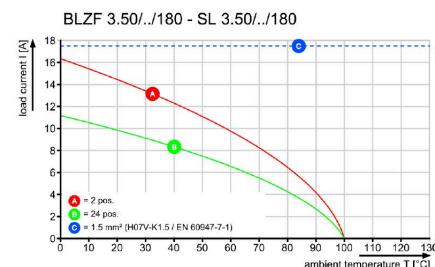
## Dimensional drawing



## Graph



## Graph



## Graph

