

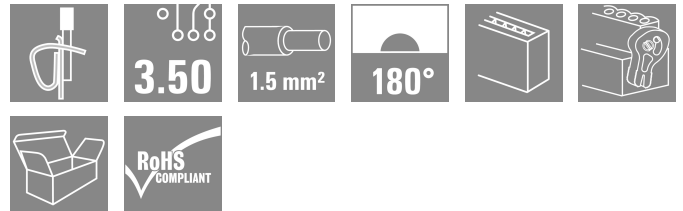
## BLZF 3.50/18/180LH SN BK BX PRT

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

www.weidmueller.com

Do not use product for  
new developments

### Product image



Similar to illustration

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: 18, 180°, Tension-clamp connection, Clamping range, max. : 1.5 mm², Box
Order No.	<a href="#">1888550000</a>
Type	BLZF 3.50/18/180LH SN BK BX PRT
GTIN (EAN)	4032248494521
Qty.	20 items
Product data	IEC: 320 V / 14,5 A / 0.2 - 1.5 mm² UL: 300 V / 10 A / AWG 26 - AWG 14
Packaging	Box
Delivery status	This article will no longer be available in the future.
Available until	2025-09-30T00:00:00+02:00

Creation date 25.02.2026 04:15:37 MEZ

Catalogue status / Drawings

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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	29.5 mm	Depth (inches)	1.1614 inch
Height	14.5 mm	Height (inches)	0.5709 inch
Width	69.4 mm	Width (inches)	2.7323 inch
Net weight	16.81 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 3.50	Type of connection	Field connection
Wire connection method	Tension-clamp connection	Pitch in mm (P)	3.50 mm
Pitch in inches (P)	0.138 "	Conductor outlet direction	180°
Number of poles	18	L1 in mm	59.50 mm
L1 in inches	2.343 "	Number of rows	1
Pin series quantity	1	Rated cross-section	1.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Protection degree	IP20, when fully mounted	Volume resistance	≤5 mΩ
Can be coded	Yes	Stripping length	10 mm
Screwdriver blade	0.4 x 2.5	Screwdriver blade standard	DIN 5264-A
Plugging cycles	25	Plugging force/pole, max.	7 N
Pulling force/pole, max.	5 N		

## Material data

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of plug contact	4...8 μm Sn hot-dip tinned
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
Temperature range, installation, min.	-30 °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, min.	0.2 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	1 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	1.5 mm <sup>2</sup>
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	<a href="#">H0.5/16 OR</a>	
		Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H0.5/10</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	0.75 mm <sup>2</sup>	
		Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H0.75/16 W</a>	
wire end ferrule		Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H0.75/10</a>	
		Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H1.0/16D R</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	1 mm <sup>2</sup>	
		Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H1.0/10</a>	
wire end ferrule		Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H1.5/10</a>	
		Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H1.5/10</a>	

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/3	160 V

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**Technical data**

Rated impulse voltage for surge voltage class/ pollution degree II/2 2.5 kV  
 Rated impulse voltage for surge voltage class/ contamination degree III/3 2.5 kV

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

VPE length 101.00 mm  
 VPE height 83.00 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	
Test: Clampable cross section	Evaluation	passed	
	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 and conductor cross-section	solid 0.2 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>
		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 28/1
		Type of conductor and conductor cross-section	AWG 28/19
Type of conductor and conductor cross-section		AWG 16/1	

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		Type of conductor and conductor cross-section	AWG 16/19	
Test for damage to and accidental loosening of conductors	Evaluation	passed		
	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-6 10 "Class 2". Further claims on the products can be evaluated on request.
Notes	<ul style="list-style-type: none"> <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>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Max. outer diameter of the conductor: 2.9 mm</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</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>• P on drawing = pitch</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>

**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		

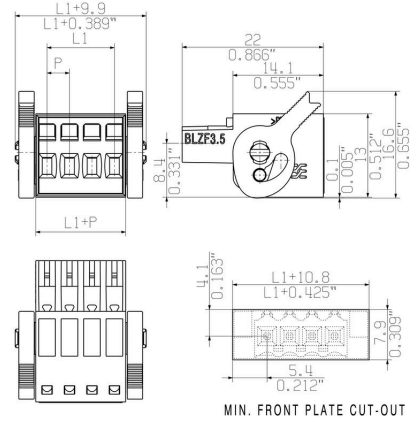
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**Drawings**

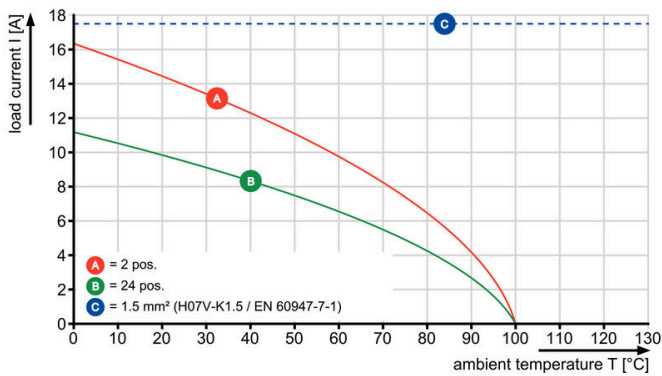
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**Dimensional drawing**



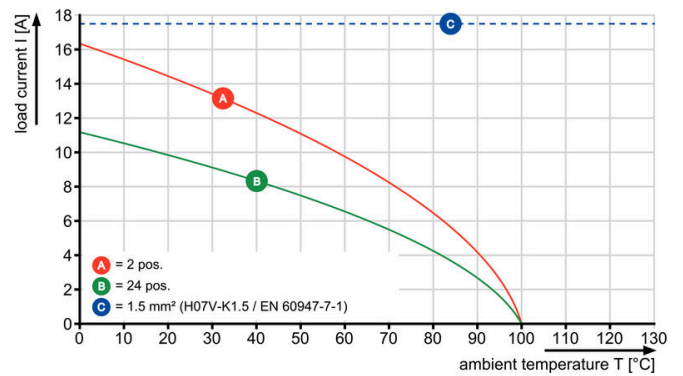
**Graph**

BLZF 3.50/./180 - SL 3.50/./90



**Graph**

BLZF 3.50/./180 - SL 3.50/./180



**Graph**

BLZF 3.50/./180 - SL 3.50/./90

