

## BLZ 7.50/12/180 SN OR BX

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

www.weidmueller.com

### Product image



Similar to illustration

Female plugs with clamping-yoke screw wire-connect system. The female plugs provide space for labelling and can be coded.

### General ordering data

Version	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 12, 180°, Clamping yoke connection, Clamping range, max. : 3.31 mm², Box
Order No.	<a href="#">1628020000</a>
Type	BLZ 7.50/12/180 SN OR BX
GTIN (EAN)	4008190200824
Qty.	20 items
Product data	IEC: 800 V / 18,5 A / 0.2 - 2.5 mm² UL: 300 V / 15 A / AWG 26 - AWG 12
Packaging	Box

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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	20.1 mm	Depth (inches)	0.7913 inch
Height	15.2 mm	Height (inches)	0.5984 inch
Net weight	22.88 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 7.50	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.50 mm
Pitch in inches (P)	0.295 "	Conductor outlet direction	180°
Number of poles	12	L1 in mm	82.50 mm
L1 in inches	3.248 "	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Volume resistance	4.50 mΩ	Can be coded	Yes
Stripping length	7 mm	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.5 Nm	Clamping screw	M 2.5
Screwdriver blade	0.6 x 3.5	Screwdriver blade standard	DIN 5264
Plugging cycles	25	Plugging force/pole, max.	9 N
Pulling force/pole, max.	8.5 N		

## Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	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	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	100 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	100 °C		

## Conductors suitable for connection

Clamping range, min.	0.13 mm <sup>2</sup>
Clamping range, max.	3.31 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12

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Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>			
Solid, max. H05(07) V-U	2.5 mm <sup>2</sup>			
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>			
Flexible, max. H05(07) V-K	2.5 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, 2.5 mm <sup>2</sup> max.				
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm <sup>2</sup>			
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm <sup>2</sup>			
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 mm			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	<a href="#">H0,5/6</a>	
		Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	1 mm <sup>2</sup>	
		Stripping length	nominal	6 mm
		Recommended wire-end ferrule	<a href="#">H1,0/6</a>	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm <sup>2</sup>	
		Stripping length	nominal	7 mm
	wire end ferrule	Recommended wire-end ferrule	<a href="#">H1,5/7</a>	
		Cross-section for conductor connection	Type	fine-wired
			nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	<a href="#">H2,5/7</a>	
		Cross-section for conductor connection	Type	fine-wired
	nominal		0.75 mm <sup>2</sup>	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	<a href="#">H0,75/6</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)	18.5 A
Rated current, max. number of poles (Tu=20°C)	17 A	Rated current, min. number of poles (Tu=40°C)	15 A
Rated current, max. number of poles (Tu=40°C)	14.5 A	Rated voltage for surge voltage class / pollution degree II/2	800 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	500 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 120 A

### Rated data acc. to CSA

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V

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Rated current (Use group B / CSA)	15 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

### Rated data acc. to UL 1059

Institute (UR)	UR	Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	15 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

### Packing

Packaging	Box	VPE length	236.00 mm
VPE width	176.00 mm	VPE height	26.00 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 cross-section, rated voltage, pitch, type of material, approval marking UL, approval marking CSA		
	Evaluation	available		
	Test	durability		
Test: Misengagement (Non-interchangeability)	Evaluation	passed		
	Standard	draft DIN VDE 0627 section 5.9.1 / 09.91, DIN IEC 60512-7 section 5 / 05.94		
	Test	180° turned with coding elements		
Test: Clampable cross section	Evaluation	passed		
	Standard	DIN EN 60999 section 6 and 8.1 / 04.94, DIN EN 60947-1 section 8.2.4.5.1 / 07.98		
		Conductor type	Type of conductor and conductor cross-section	solid 0.08 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.08 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	solid 2.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 2.5 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 12/1	
	Type of conductor and conductor cross-section	AWG 12/19		
Evaluation	passed			

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Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999 section 8.4 / 04.94		
	Requirement	0.2 kg		
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1	
		Type of conductor and conductor cross-section	AWG 28/7	
	Evaluation	passed		
	Requirement	0.3 kg		
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>	
	Evaluation	passed		
	Requirement	0.7 kg		
	Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>	
	Evaluation	passed		
	Requirement	0.9 kg		
	Conductor type	Type of conductor and conductor cross-section	AWG 12/1	
Type of conductor and conductor cross-section		AWG 12/19		
Evaluation	passed			
Pull-out test	Standard	DIN EN 60999 section 8.5 / 04.94		
	Requirement	≥5 N		
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1	
		Type of conductor and conductor cross-section	AWG 28/7	
	Evaluation	passed		
	Requirement	≥50 N		
	Conductor type	Type of conductor and conductor cross-section	H05V-U2.5	
		Type of conductor and conductor cross-section	H05V-K2.5	
	Evaluation	passed		
	Requirement	≥60 N		
	Conductor type	Type of conductor and conductor cross-section	AWG 12/1	
		Type of conductor and conductor cross-section	AWG 12/19	
	Evaluation	passed		

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### 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>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</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>• P on drawing = pitch</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>

### 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		

**Dimensional drawing**



**Derating curve**

