

BLZ 7.50/04/180 SN RD 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: 4, 180°, Clamping yoke connection, Clamping range, max. : 3.31 mm ²
Order No.	2496170000
Type	BLZ 7.50/04/180 SN RD BX
GTIN (EAN)	4050118506204
Qty.	100 items
Product data	IEC: 800 V / 18,5 A / 0.2 - 2.5 mm ² UL: 300 V / 15 A / AWG 26 - AWG 12

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	20.1 mm	Depth (inches)	0.7913 inch
Height	15.2 mm	Height (inches)	0.5984 inch
Net weight	7.13 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	4	L1 in mm	22.50 mm
L1 in inches	0.886 "	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 standard	DIN 5264
Plugging cycles	25	Plugging force/pole, max.	9 N
Pulling force/pole, max.	8.5 N		

Material data

Insulating material	PBT	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
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 ²
Clamping range, max.	3.31 mm ²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	2.5 mm ²
Flexible, min. H05(07) V-K	0.2 mm ²
Flexible, max. H05(07) V-K	2.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 0.2 mm ² min.	

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w. wire end ferrule, DIN 46228 pt 1, 2.5 mm²
 max.

Plug gauge in accordance with EN 2.8 mm x 2.0 mm; 2.4 mm
 60999 a x b; ø

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	nominal		0.5 mm ²
wire end ferrule	Stripping length	nominal	6 mm
	Recommended wire-end ferrule		H0,5/6
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	nominal		1 mm ²
wire end ferrule	Stripping length	nominal	6 mm
	Recommended wire-end ferrule		H1,0/6
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	nominal		1.5 mm ²
wire end ferrule	Stripping length	nominal	7 mm
	Recommended wire-end ferrule		H1,5/7
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	nominal		2.5 mm ²
wire end ferrule	Stripping length	nominal	7 mm
	Recommended wire-end ferrule		H2,5/7
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	nominal		0.75 mm ²
wire end ferrule	Stripping length	nominal	6 mm
	Recommended wire-end ferrule		H0,75/6

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

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group D / CSA)	300 V
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

Rated data acc. to UL 1059

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

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Packing

VPE length	165.00 mm	VPE width	147.00 mm
VPE height	72.00 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		
	Evaluation	passed		
Test: Misengagement (Non-interchangeability)	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		
	Evaluation	passed		
Test: Clampable cross section	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 ²	
		Type of conductor and conductor cross-section	stranded 0.08 mm ²	
		Type of conductor and conductor cross-section	solid 2.5 mm ²	
		Type of conductor and conductor cross-section	stranded 2.5 mm ²	
		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		
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 ²	
Type of conductor and conductor cross-section		stranded 0.5 mm ²		

Technical data

	Evaluation	passed
	Requirement	0.7 kg
	Conductor type	Type of conductor and conductor cross-section solid 2.5 mm ²
		Type of conductor and conductor cross-section stranded 2.5 mm ²
	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
Pull-out test	Evaluation	passed
	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	

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**
- Additional variants on request
 - Gold-plated contact surfaces on request
 - Rated current related to rated cross-section & min. No. of poles.
 - Wire end ferrule without plastic collar to DIN 46228/1
 - Wire end ferrule with plastic collar to DIN 46228/4
 - P on drawing = pitch
 - 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

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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		

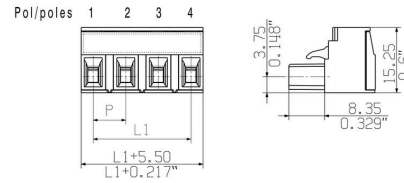
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Drawings

Dimensional drawing



Derating curve

BLZ 7.50/./180 - SL 7.50

