BLZ 7.50/03/180 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: 3, 180°, Clamping yoke connection, Clamping range, max. : 3.31 mm², Box
Order No.	1627930000
Type	BLZ 7.50/03/180 SN OR BX
GTIN (EAN)	4008190200732
Qty.	100 pc(s).
Product data	IEC: 800 V / 18.5 A / 0.2 - 2.5 mm² UL: 300 V / 15 A / AWG 26 - AWG 12
Packaging	Box

Creation date March 12, 2024 3:01:48 PM CET

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Technical data

Dimensions and weights

Depth	20.1 mm	Depth (inches)	0.791 inch
Height	15.2 mm	Height (inches)	0.598 inch
Net weight	5.64 g		

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)	7.5 mm
Pitch in inches (P)	0.295 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	15 mm
L1 in inches	0.591 "	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	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 mm²
Clamping range, max.	3.31 mm²
Wire connection cross section AWG, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.2 mm²
Solid, max. H05(07) V-U	2.5 mm²
Flexible, min. H05(07) V-K	0.2 mm²
Flexible, max. H05(07) V-K	2.5 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm²
w. wire end ferrule, DIN 46228 pt 1, min.	0.2 mm²
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm²
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 mm

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Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H0,5/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm²	
	wire end ferrule	Stripping length	nominal	6 mm
		Recommended wire-end ferrule	H1,0/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H1,5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm²	
	wire end ferrule	Stripping length	nominal	7 mm
		Recommended wire-end ferrule	H2,5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm²	
	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

Institute (CSA)		Certificate No. (CSA)	200039-1121690
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
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

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Technical data

Rated data acc. to UL 1059

Institute (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	228 mm
VPE width	134 mm	VPE height	46 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 mm²
		Type of conductor and conductor cross-section	stranded 0.08 mm²
		Type of conductor and conductor cross-section	solid 2.5 mm²
		Type of conductor and conductor cross-section	stranded 2.5 mm²
		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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Technical data

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 mm²
		Type of conductor and conductor cross-section	stranded 0.5 mm²
	Evaluation	passed	
	Requirement	0.7 kg	
	Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm²
		Type of conductor and conductor cross-section	stranded 2.5 mm²
	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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Technical data

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

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

Approvals

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

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Technical data

Downloads

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

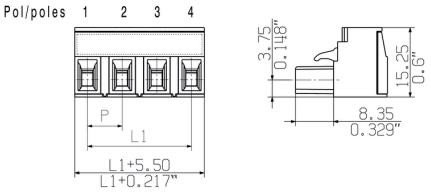
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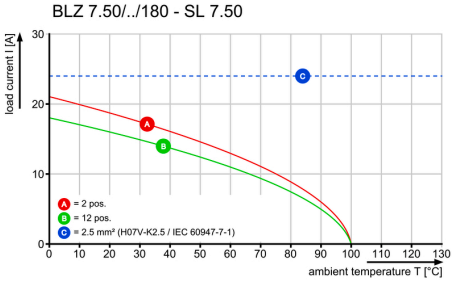
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Drawings

Dimensional drawing



Derating curve



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Accessories

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.
Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase.
The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible.
The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

Strain reliefs



For frequent load changes: the "trailer coupling" for plug-in connectors.
The strain relief can do more than just relieve the strain on conductors:
Simply clip onto the plug and
- bundle conductors
- guide cables
- use as a connection and disconnection aid

No damage to the connecting points, clear, tidy wiring and easy to handle.
User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

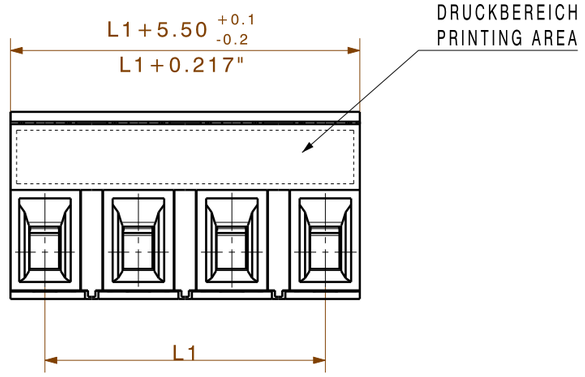
General ordering data

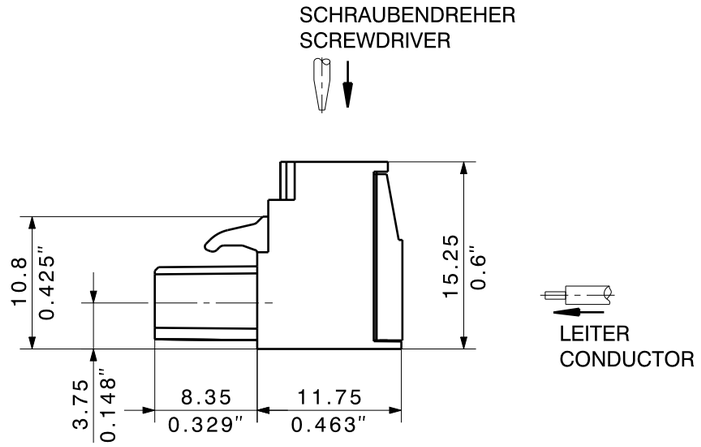
Type	BLZ 7.50 ZE03 BK BX	Version	Product data	Packaging
Order No.	1652200000	PCB plug-in connector, Accessories, Strain relief, black, Number of		Box
GTIN (EAN)	4008190401870	poles: 3		
Qty.	50 pc(s).			
Type	BLZ 7.50 ZE03 OR BX	Version	Product data	Packaging
Order No.	1652140000	PCB plug-in connector, Accessories, Strain relief, orange, Number of		Box
GTIN (EAN)	4008190401818	poles: 3		
Qty.	50 pc(s).			

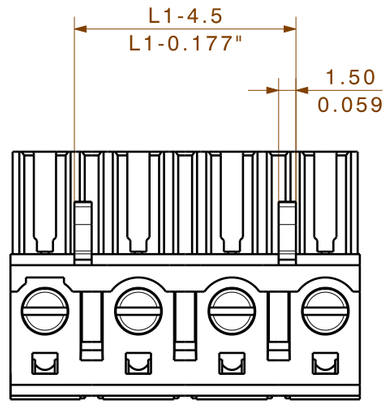
MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING

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12	82,50	3,248
11	75,00	2,953
10	67,50	2,657
9	60,00	2,362
8	52,50	2,067
7	45,00	1,772
6	37,50	1,476
5	30,00	1,181
4	22,50	0,886
3	15,00	0,591
2	7,50	0,295
n	L1 [mm]	L1 [Inch]

SHOWN: BLZ 7.50/04/180

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary 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 PCB components are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

RoHS COMPLIANT

METRIC TOLERANCES:
X. = ±0.3
X.X = ±0.1
X.XX = ±0.05

60233/5
09.11.11 HELIS_MA 01

MODIFICATION

CAT.NO.: .

Weidmüller

C 21326 08
DRAWING NO. ISSUE NO.

SHEET 01 OF 02 SHEETS

	DATE	NAME
DRAWN	16.08.2010	HOHLBEIN_K
RESPONSIBLE		LANG_T
CHECKED	11.11.2011	HECKERT_M
APPROVED		HECKERT_M

SCALE: 2:1

SUPERSEDES: 21326/06

BLZ 7.50/../180...

BUCHSENLEISTE
SOCKET BLOCK

PRODUCT FILE: BLZ/SL 7.50 7152