

## OMNIMATE Signal - series BL/SL 7.50 BLZ 7.50/11/270 SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
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### Product image



Similar to illustration

Female plugs with clamping-yoke screw for wire connection with 270° outlet direction. The female plugs provide space for labelling and can be coded.

### General ordering data

Type	BLZ 7.50/11/270 SN OR BX
Order No.	<a href="#">1702320000</a>
Version	PCB plug-in connector, female plug, 7.50 mm, Number of poles: 11, 270°, Clamping yoke connection, Clamping range, max. : 3.31 mm², Box
GTIN (EAN)	4008 190908805
Qty.	18 pc(s).
Product data	IEC: 800 V / 15 A / 0.2 - 2.5 mm² UL: 300 V / 10 A / AWG 26 - AWG 12
Packaging	Box

Creation date May 3, 2020 12:44:21 PM CEST

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**Technical data****Dimensions and weights**

Height	14.3 mm	Height (inches)	0.563 inch
Depth	26.8 mm	Depth (inches)	1.055 inch
Net weight	27.278 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 inch	Conductor outlet direction	270°
Number of poles	11	L1 in mm	75 mm
L1 in inches	2.953 inch	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Volume resistance	5.00 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 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	Illa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Storage temperature, min.	-25 °C	Storage temperature, max.	50 °C
Max. relative humidity during storage	70 %	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
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, 0.2 mm <sup>2</sup> min.	
w. wire end ferrule, DIN 46228 pt 1, 2.5 mm <sup>2</sup> max.	
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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**Technical data**

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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 6 mm
		Recommended wire-end ferrule	<a href="#">H1.0/6</a>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 7 mm
		Recommended wire-end ferrule	<a href="#">H1.5/7</a>
Clampable conductor	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>
Clampable conductor	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.		
Max. clamping range	3.31 mm <sup>2</sup>		

**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	15 A
Rated current, max. number of poles (Tu=20°C)	13 A	Rated current, min. number of poles (Tu=40°C)	12.5 A
Rated current, max. number of poles (Tu=40°C)	11 A	Rated voltage for surge voltage class / pollution degree II/2	800 V
Rated voltage for surge voltage class / pollution degree III/2	800 V	Rated voltage for surge voltage class / pollution degree III/3	500 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	8 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 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.		


**Data sheet**

**OMNIMATE Signal - series BL/SL 7.50  
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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)	10 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	69 mm
VPE width	97 mm	VPE height	311 mm

**Classifications**

ETIM 6.0	EC002638	ETIM 7.0	EC002638
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09
eClass 10.0	27-44-03-09	UNSPSC	30-21-18-10

**Notes**

Notes	<ul style="list-style-type: none"> <li>• Additional colours 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> </ul>
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.

**Approvals**

Approvals	
ROHS	Conform

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**Technical data****Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL BUILDING SAFETY EN</a> <a href="#">FL APPL LED LIGHTING EN</a> <a href="#">FLIndustr.CONTROLS EN</a> <a href="#">FL MACHINE SAFETY EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Engineering Data	<a href="#">STEP</a>

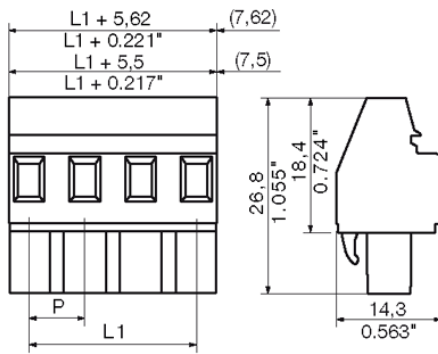
**Data sheet**

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**Drawings**

**Dimensional drawing**



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**Mating connector (conditionally pluggable)**
**SL 7.50/90B**


Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/11/90B 3.2SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1628560000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190201364	solder connection, 7.50 mm, Number of poles: 11, 90°, Solder pin	UL: 300 V / 15 A	
Qty.	50 pc(s).	length (l): 3.2 mm, tinned, orange, Box		

**SL 7.50/180B**


Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/11/180B 3.2SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1629220000</a>	PCB plug-in connector, male header, Dovetails for fixing blocks, THT	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190202026	solder connection, 7.50 mm, Number of poles: 11, 180°, Solder pin	UL: 300 V / 15 A	
Qty.	50 pc(s).	length (l): 3.2 mm, tinned, orange, Box		

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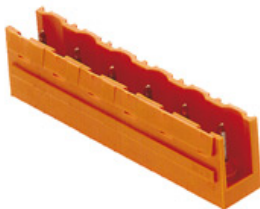
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**Mating connector (fully pluggable)**
**SL 7.50/90**


Male connectors with 90° outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/11/90 3.2SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1628450000</a>	PCB plug-in connector, male header, open side, THT solder	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190201258	connection, 7.50 mm, Number of poles: 11, 90°, Solder pin length (l):	UL: 300 V / 15 A	
Qty.	50 pc(s).	3.2 mm, tinned, orange, Box		

**SL 7.50/180**


Male connectors with straight outlet direction. The solder pin length is optimised for wave flow soldering. The pin headers provide space for labelling and can be coded.

**General ordering data**

Type	SL 7.50/11/180 3.2SN OR ...	Version	Product data	Packaging
Order No.	<a href="#">1629110000</a>	PCB plug-in connector, male header, open side, THT solder	IEC: 800 V / 18.5 A	Box
GTIN (EAN)	4008190201913	connection, 7.50 mm, Number of poles: 11, 180°, Solder pin length	UL: 300 V / 15 A	
Qty.	50 pc(s).	(l): 3.2 mm, tinned, orange, Box		



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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.

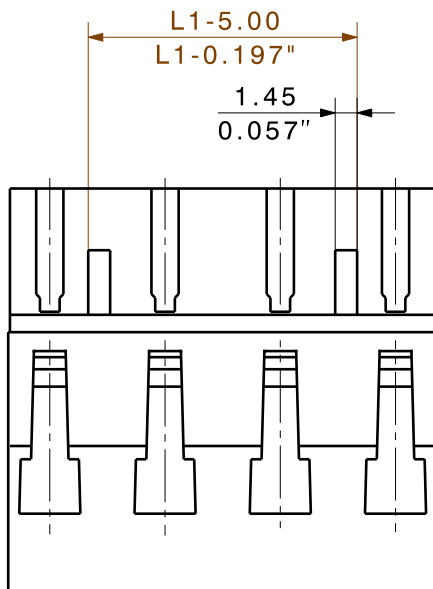
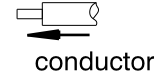
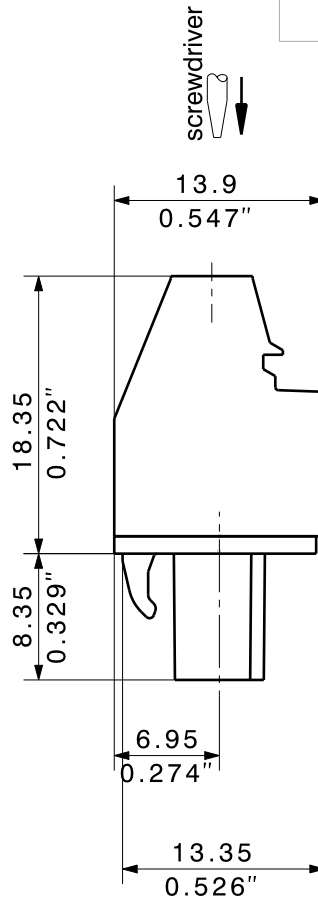
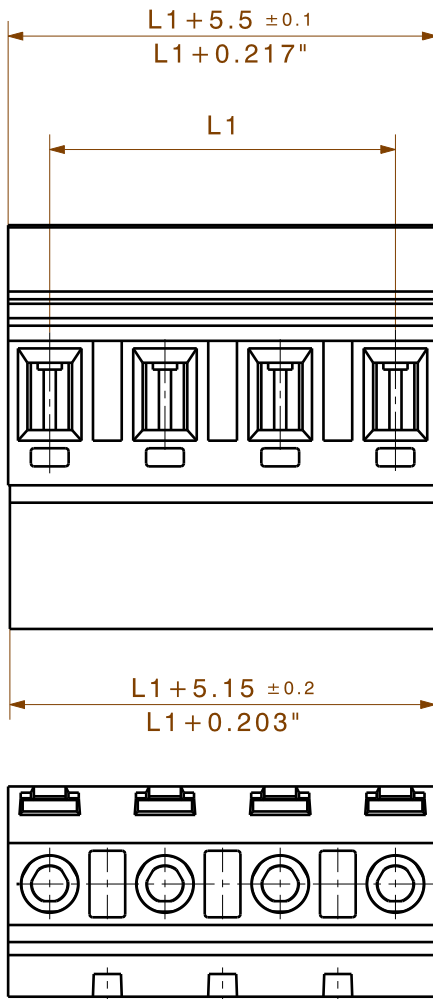
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

## General ordering data

Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	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.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
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



For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance with 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 occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

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 7.50/04/270

	METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05	57771/0 28.03.11 HERTEL_S 01	CAT.NO.:	<b>C 23196 03</b>
	MODIFICATION	DATE	NAME	DRAWING NO. SHEET 02 OF 02 SHEETS ISSUE NO.
	DRAWN 25.03.2011	HERTEL_S	<b>BLZ 7.50/./270 (B)</b> BUCHSENLEISTE SOCKET BLOCK	
SCALE: 2/1	RESPONSIBLE	HERTEL_S		
SUPERSEDES: 3 23196/02	CHECKED 28.03.2011	HECKERT_M		
APPROVED	HECKERT_M	PRODUCT FILE: BLZ 7.50/90/270	7154	

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