

## OMNIMATE Signal - series BL/SL 5.00 BLZ 5.00/10/180 SN BK BX

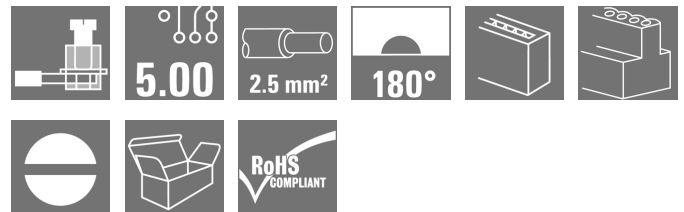
**Weidmüller Interface GmbH & Co. KG**  
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### Product image



Similar to illustration

Do not use product for new developments



Female plugs with clamping-yoke screw for wire connection with straight (180°) outlet direction. The female plugs provide space for labelling and can be coded.

### General ordering data

Delivery status	<b>This article will no longer be available in the future.</b>
Available until	2023-12-31
Type	BLZ 5.00/10/180 SN BK BX
Order No.	<a href="#">1596120000</a>
Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 10, 180°, Clamping yoke connection, Clamping range, max.: 3.31 mm², Box
GTIN (EAN)	4008190170417
Qty.	50 pc(s).
Product data	IEC: 400 V / 19 A / 0.5 - 2.5 mm²
Creation date	25.04.2020 16:00:03 PM CEST
Packaging	Box
Alternative product	<a href="#">1955490000</a>

Catalogue status 17.04.2020 / We reserve the right to make technical changes.

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

Width	50 mm	Width (inches)	1.969 inch
Height	15.2 mm	Height (inches)	0.598 inch
Depth	20.1 mm	Depth (inches)	0.791 inch
Net weight	16.22 g		

**System Parameters**

Product family	OMNIMATE Signal - series BL/SL 5.00	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	5 mm
Pitch in inches (P)	0.197 inch	Conductor outlet direction	180°
Number of poles	10	L1 in mm	45 mm
L1 in inches	1.773 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 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	IP 20
Volume resistance	≤ 5mΩ	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.	10 N
Pulling force/pole, max.	8 N		

**Material data**

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
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
Layer structure of plug contact	4-8 μm Sn hot-dip 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	0.5 mm <sup>2</sup>	Solid, max. H05(07) V-U	2.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>	Flexible, max. H05(07) V-K	2.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm <sup>2</sup>	w. plastic collar ferrule, DIN 46228 pt 4, max.	2.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 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		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.
	2.8 mm x 2.0 mm; 2.4 mm		
Max. clamping range	3.31 mm <sup>2</sup>		


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**Technical data****Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	19 A
Rated current, max. number of poles (Tu=20°C)	14.5 A	Rated current, min. number of poles (Tu=40°C)	16 A
Rated current, max. number of poles (Tu=40°C)	12.5 A	Rated voltage for surge voltage class / pollution degree II/2	400 V
Rated voltage for surge voltage class / pollution degree III/2	320 V	Rated voltage for surge voltage class / pollution degree III/3	250 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	4 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	4 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.		

**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	96 mm
VPE width	119 mm	VPE height	134 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

**Data sheet**

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**Technical data**

**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>
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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.
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**Approvals**

Approvals



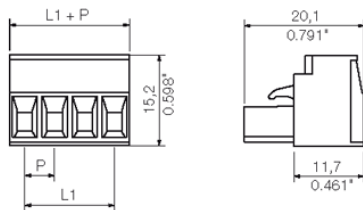
ROHS	Conform
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**Downloads**

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="#">FL INDUSTR.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>

**Data sheet****OMNIMATE Signal - series BL/SL 5.00  
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**Drawings****Dimensional drawing**

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

DIE DEUTSCHE VERSION IST VERBINDLICH  
 THE GERMAN VERSION IS BINDING

**Technical Data**

Rev.

**Material data**

Insulation material type	PBT
Insulation material colours	see order sheet
Insulation material flammability class	V-0
Insulation resistance	>10 <sup>5</sup>
Contact base material	Cu-alloy
Contact plating	tin plated

**System characteristic values**

	with counterpart	SL5.00 180°
Pitch P	mm/inch	5.00/0.197
Number of rows		1
Dielectric strength (r.m.s withstand voltage)	kV	>2.21
Mechanical operating cycles acc. to DIN IEC 512		25
Pull in force (max)	N/pole	10
Pull out force (max)	N/pole	8
Through resistance (typical)	mOhm	2.0
Operating temperature range	°C	-55...+100
Degree of protection acc. to VDE 0106 (plugged/unplugged)		finger safe / finger safe
Degree of protection acc. to DIN EN 60529 (plugged/unplugged)		IP20 / IP20
Conductor connection method		clamping yoke
Screw size		M2.5
Screw torque max acc. to EN 60999	Nm	0.4
Screw driver type		SD 0.6 x 3.5

**Application notes**

Coding possibility	yes/no	yes (accessory)
Joinable without loss of pitch	yes/no	yes
Manual assembly of modules	yes/no	no
Max number of poles	n	24

**Conductor**

Clamping range	mm <sup>2</sup>	0.08...2.5
"e" solid H05(07) V-U	mm <sup>2</sup>	0.5...2.5
"f" flexible H05(07) V-K	mm <sup>2</sup>	0.5...2.5
"f" with ferrule acc. to DIN 46228/1	mm <sup>2</sup>	0.5...2.5
... with plastic collar acc. to DIN 46228/4	mm <sup>2</sup>	0.5...1.5
Conductor insulation stripping length	mm/inch	7/0.276
Conductor insulation diameter max.	mm	n.a.
Two wire clamping range	mm <sup>2</sup>	n.a.
Gauge to EN 60999 (a x b ; Ø)	mm	2.8 x 2.4; 2.4

**IEC 664-1 / VDE0110 (4.97) rated data**

Rated cross section acc. to EN 60999	mm <sup>2</sup>	2.5
Rated current @ 20°C ambient (together with SL5.00/2)	A	18
Rated current @ 40°C ambient (together with SL5.00/2)	A	15
<b>Overvoltage category / Pollution degree</b>		<b>III/3 III/2 II/2</b>
Rated voltage	V	250 320 400
Rated impulse voltage	kV	4.0 4.0 4.0

**UL 1059 rated data**



Rated voltage	V	300	-	300
Rated current	A	15	-	10
AWG wire range (field wiring / factory wiring)		22....12		

**CSA C22.2 rated data**



Rated voltage	V	300	-	300
Rated current	A	15	-	10
AWG wire range (field wiring / factory wiring)		26...12		

**Packaging**

carton

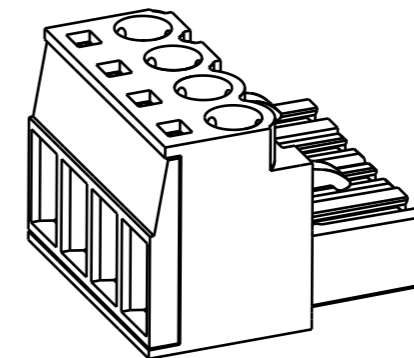
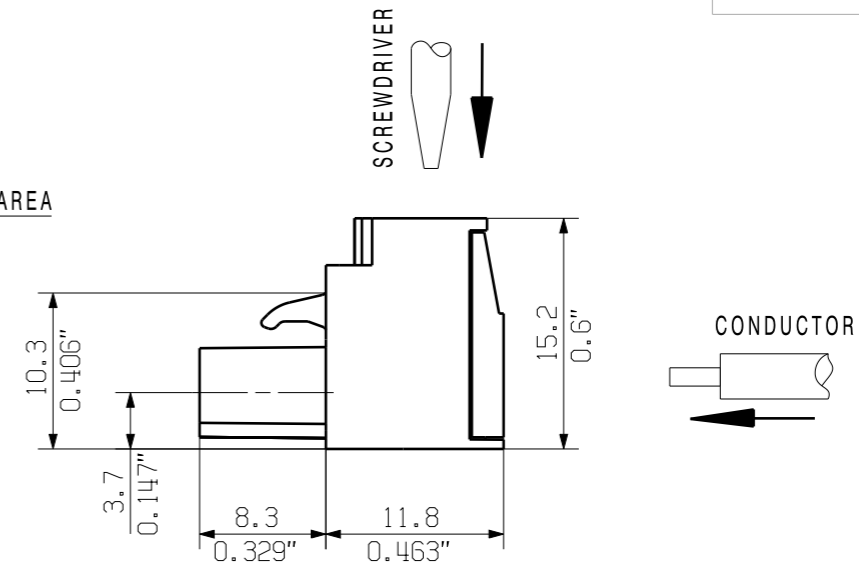
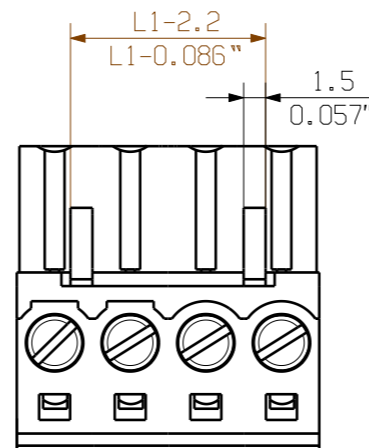
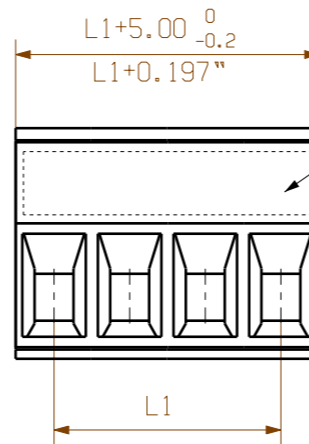
**Downloads**

www.weidmueller.de

- Without locking latches
- Sum of ambient temperature and temperature rise
- Referred to rated cross section and maximum pole number

n.a. = not applicable

Subject to technical changes



24	115,00	4,531
23	110,00	4,334
22	105,00	4,137
21	100,00	3,940
20	95,00	3,743
19	90,00	3,546
18	85,00	3,349
17	80,00	3,152
16	75,00	2,955
15	70,00	2,758
14	65,00	2,561
13	60,00	2,364
12	55,00	2,167
11	50,00	1,970
10	45,00	1,773
9	40,00	1,576
8	35,00	1,379
7	30,00	1,182
6	25,00	0,985
5	20,00	0,788
4	15,00	0,591
3	10,00	0,394
2	5,00	0,197
n	L1 [mm]	L1 [Inch]

SHOWN: BLZ 5.00/4

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 to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

	METRIC TOLERANCES: X. = ±0.3 X.X = ±0.1 X.XX = ±0.05		CAT.NO.:	
	43216/5 11.05.09 HELIS_MA 00		<b>C 18227 28</b>	
MODIFICATION				DRAWING NO. ISSUE NO. SHEET 02 OF 06 SHEETS
		DATE 10.12.2007	NAME HELIS_MA	<b>BLZ 5.00/.../ 180 (B)</b> BUCHSENLEISTE SOCKET BLOCK
SCALE: 2/1		RESPONSIBLE HECKERT_S	CHECKED 13.05.2009 HECKERT_M	
SUPERSEDES:		APPROVED HECKERT_M	PRODUCT FILE: BLZ 5.00	

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