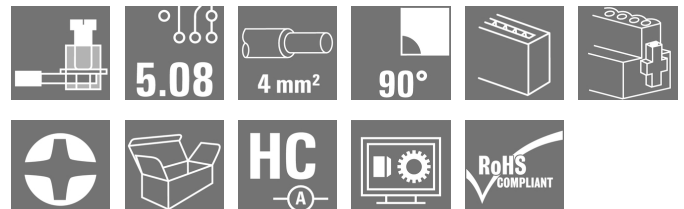


## OMNIMATE Signal - series BL/SL 5.08 BLZP 5.08HC/20/90F SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

### Product image



Similar to illustration

Female plugs with clamping-yoke connection for connecting wires with a right-angle (90° or 270°) outlet direction. The female connectors provide space for labelling and can be coded. Fastened by means of a flange or release latch. They also provide an integrated plus/minus screw, protection against faulty insertion of the wire, and they are delivered with open clamping yokes. HC = High Current.

### General ordering data

Type	BLZP 5.08HC/20/90F SN OR BX
Order No.	<a href="#">1949980000</a>
Version	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 20, 90°, Clamping yoke connection, Clamping range, max. : 4 mm², Box
GTIN (EAN)	4032248627912
Qty.	12 pc(s).
Product data	IEC: 400 V / 23 A / 0.2 - 4 mm² UL: 300 V / 20 A / AWG 26 - AWG 12
Packaging	Box

Creation date August 9, 2020 11:54:15 AM CEST

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

Width	111.4	Width (inches)	4.386 inch
Height	14.1 mm	Height (inches)	0.555 inch
Depth	27.1 mm	Depth (inches)	1.067 inch
Net weight	43.83 g		

**System Parameters**

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Conductor outlet direction	90°
Number of poles	20	L1 in mm	96.52 mm
L1 in inches	3.8 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	4 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch	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, PH 1, PZ 1
Screwdriver blade standard	DIN 5264, ISO 8764/2-PH, ISO 8764/2-PZ	Plugging cycles	25
Plugging force/pole, max.	10 N	Pulling force/pole, max.	9 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
Layer structure of plug contact	4...8 μm Sn hot-dip 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.	4 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 30	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	4 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.2 mm <sup>2</sup>	Flexible, max. H05(07) V-K	4 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.2 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.	0.2 mm <sup>2</sup>	w. wire end ferrule, DIN 46228 pt 1, max.	4 mm <sup>2</sup>
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.4 mm	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	4 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)	23 A
Rated current, max. number of poles (Tu=20°C)	18 A	Rated current, min. number of poles (Tu=40°C)	21 A
Rated current, max. number of poles (Tu=40°C)	16 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 C / CSA)	50 V
Rated voltage (Use group D / CSA)	300 V	Rated current (Use group B / CSA)	20 A
Rated current (Use group D / CSA)	20 A	Wire cross-section, AWG, min.	AWG 30
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
Institute (cURus)		Certificate No. (cURus)	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)	20 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	30 mm
VPE width	135 mm	VPE height	350 mm

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**Technical data**

**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, rated voltage, rated cross-section, type of material		
	Evaluation	available		
	Test	durability		
	Evaluation	passed		
Test: Misengagement (Non-interchangeability)	Standard	DIN EN 60512-13-5 / 11.06, IEC 60512-13-5 / 02.06		
	Test	180° turned with coding elements		
	Evaluation	passed		
	Test	visual examination		
	Evaluation	passed		
Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02		
	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 0.2 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 26/1	
		Type of conductor and conductor cross-section	AWG 26/19	
	Evaluation	passed		
	Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00	
		Requirement	0.2 kg	
Conductor type		Type of conductor and conductor cross-section	AWG 26/1	
		Type of conductor and conductor cross-section	AWG 26/19	
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		0.9 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		

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**Technical data**

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00		
	Requirement	≥10 N		
	Conductor type	Type of conductor and conductor cross-section	AWG 26/1	
		Type of conductor and conductor cross-section	AWG 26/19	
	Evaluation	passed		
	Requirement	≥20 N		
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.5	
		Type of conductor and conductor cross-section	H05V-K0.5	
	Evaluation	passed		
	Requirement	≥60 N		
	Conductor type	Type of conductor and conductor cross-section	H07V-U4.0	
		Type of conductor and conductor cross-section	H07V-K4.0	
		Type of conductor and conductor cross-section	AWG 12/1	
		Type of conductor and conductor cross-section	AWG 12/19	
	Evaluation	passed		

**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	30-21-18-01

**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> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</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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Creation date August 9, 2020 11:54:15 AM CEST

Catalogue status 24.07.2020 / We reserve the right to make technical changes.

**Data sheet**

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**Technical data**

**Approvals**

Approvals



ROHS

Conform

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Approval/Certificate/Document of  
Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

- [FL DRIVES EN](#)
- [MB DEVICE MANUF. EN](#)
- [FL DRIVES DE](#)
- [CAT 2 PORTFOLIOGUIDE EN](#)
- [FL BUILDING SAFETY EN](#)
- [FL APPL LED LIGHTING EN](#)
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- [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](#)

Engineering Data

[EPLAN, WSCAD, Zuken E3.S](#)

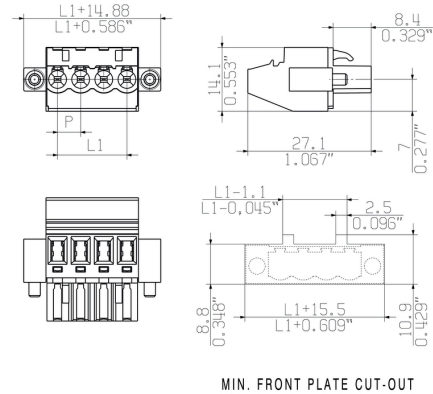
Engineering Data

[STEP](#)

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**Dimensional drawing**

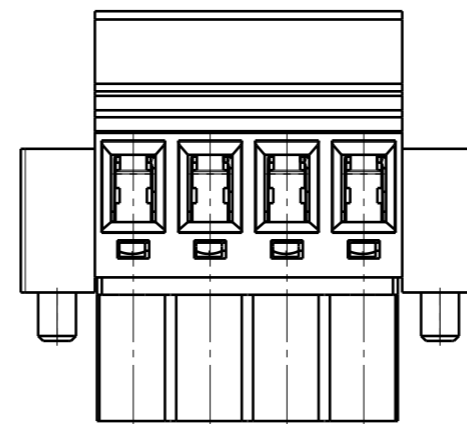
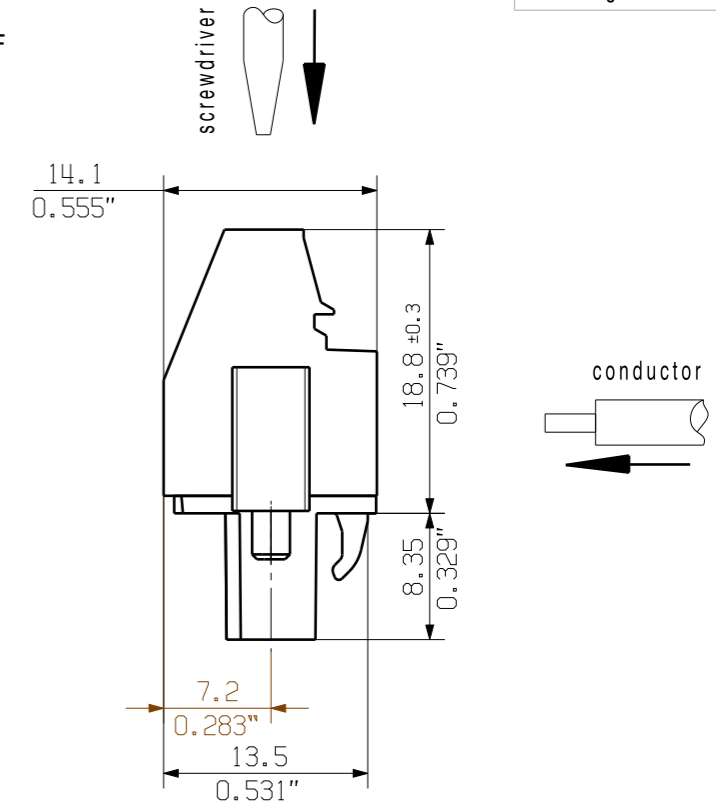


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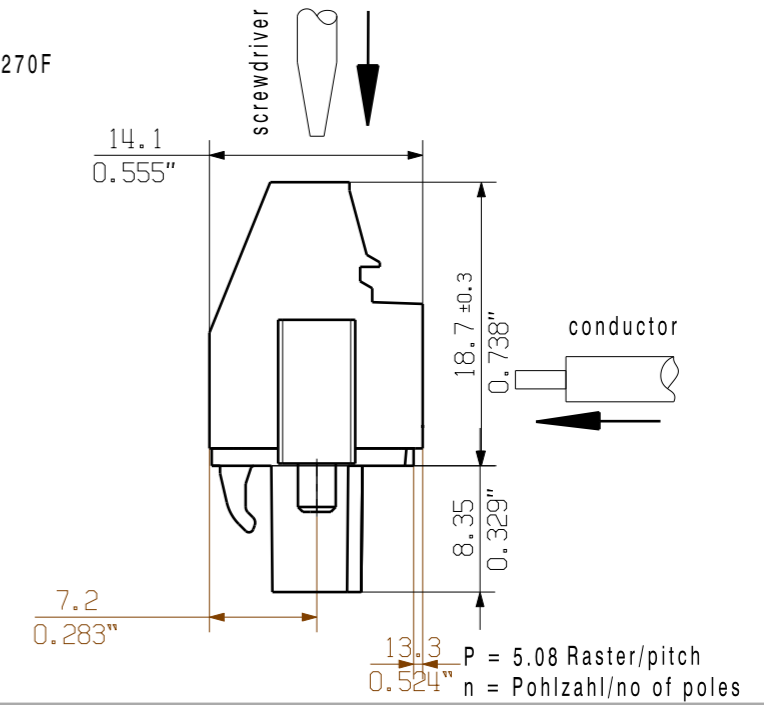
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shown:  
BLZP 5.08HC/04/90F



shown:  
BLZP 5.08HC/04/270F



24	116.84	4,60
23	111,76	4,40
22	106,68	4,20
21	101,60	4,00
20	96,52	3,80
19	91,44	3,60
18	86,36	3,40
17	81,28	3,20
16	76,20	3,00
15	71,12	2,80
14	66,04	2,60
13	60,96	2,40
12	55,88	2,20
11	50,80	2,00
10	45,72	1,80
9	40,64	1,60
8	35,56	1,40
7	30,48	1,20
6	25,40	1,00
5	20,32	0,80
4	15,24	0,60
3	10,16	0,40
2	5,08	0,20
n	L1 [mm]	L1 [inch]

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.

General tolerance: DIN ISO 2768-mK	89239/5	02	<b>Weidmüller</b>	Cat.no.: .	
	01.08.16 HELIS_MA			<b>3 39786</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">12</span>	
	Modification		Drawing no. Issue no.		
	Drawn	Date	Name	Sheet 02	of 03 sheets
	Responsible	10.06.2013	HERTEL_S		
	Checked	08.08.2016	HELIS_MA		
Scale: 2:1	Approved	LANG_T	<b>BLZP 5.08HC/.../.../... ..</b> BUCHSENLEISTE SOCKET BLOCK		
Supersedes: .	Product file: BLZP 5.08HC				

