

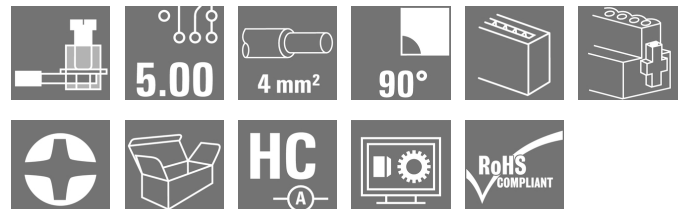
BLZP 5.00HC/20/90F SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

Similar to illustration

Female plugs with clamping-yoke 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

Version	PCB plug-in connector, female plug, 5.00 mm, Number of poles: 20, 90°, Clamping yoke connection, Clamping range, max.: 4 mm², Box
Order No.	1959270000
Type	BLZP 5.00HC/20/90F SN OR BX
GTIN (EAN)	4032248637775
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 March 26, 2021 3:10:33 PM CET

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Technical data

Dimensions and weights

Depth	27.1 mm	Depth (inches)	1.067 inch
Height	14.1 mm	Height (inches)	0.555 inch
Net weight	38.45 g	Width	110 mm
Width (inches)	4.331 inch		

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	90°		
Number of poles	20		
L1 in mm	95 mm		
L1 in inches	3.743 inch		
Number of rows	1		
Pin series quantity	1		
Rated cross-section	4 mm ²		
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch		
Volume resistance	≤5 mΩ		
Can be coded	Yes		
Stripping length	7 mm		
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		
Tightening torque	Torque type	Wire connection	
	Usage information	Tightening torque	min. 0.4 Nm
			max. 0.5 Nm
	Torque type	Screw flange	
	Usage information	Tightening torque	min. 0.2 Nm
			max. 0.25 Nm

Material data

Insulating material	PBT	Colour	orange
Colour chart (similar)	RAL 2000	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	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 ²
Clamping range, max.	4 mm ²
Wire connection cross section AWG, min.	AWG 30

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Wire connection cross section AWG, max.	AWG 12			
Solid, min. H05(07) V-U	0.2 mm ²			
Solid, max. H05(07) V-U	4 mm ²			
Flexible, min. H05(07) V-K	0.2 mm ²			
Flexible, max. H05(07) V-K	4 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, min.	0.2 mm ²			
w. wire end ferrule, DIN 46228 pt 1, max.	4 mm ²			
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.4 mm			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm ²	
		wire end ferrule	Stripping length	nominal
	Recommended wire-end ferrule		H0.5/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm ²	
		wire end ferrule	Stripping length	nominal
	Recommended wire-end ferrule		H1.0/6	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm ²	
		wire end ferrule	Stripping length	nominal
	Recommended wire-end ferrule		H1.5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm ²	
		wire end ferrule	Stripping length	nominal
	Recommended wire-end ferrule		H2.5/7	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.75 mm ²	
		wire end ferrule	Stripping length	nominal
	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)	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

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Technical data**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.

Reference to approval values

Specifications are maximum values, details - see approval certificate.

AWG 12

Rated data acc. to UL 1059

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

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

ECLASS 11.0 27-46-02-02

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Technical data**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 colours 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. • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

Approvals

Approvals



ROHS	Conform
UL File Number Search	E60693

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD

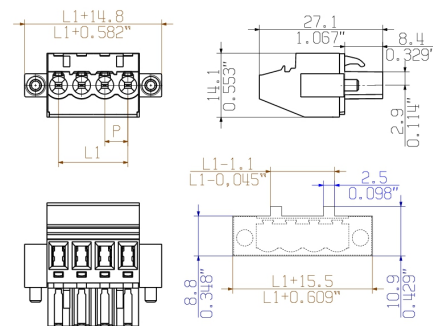
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Drawings

Dimensional drawing



MIN. FRONT PLATE CUT-OUT

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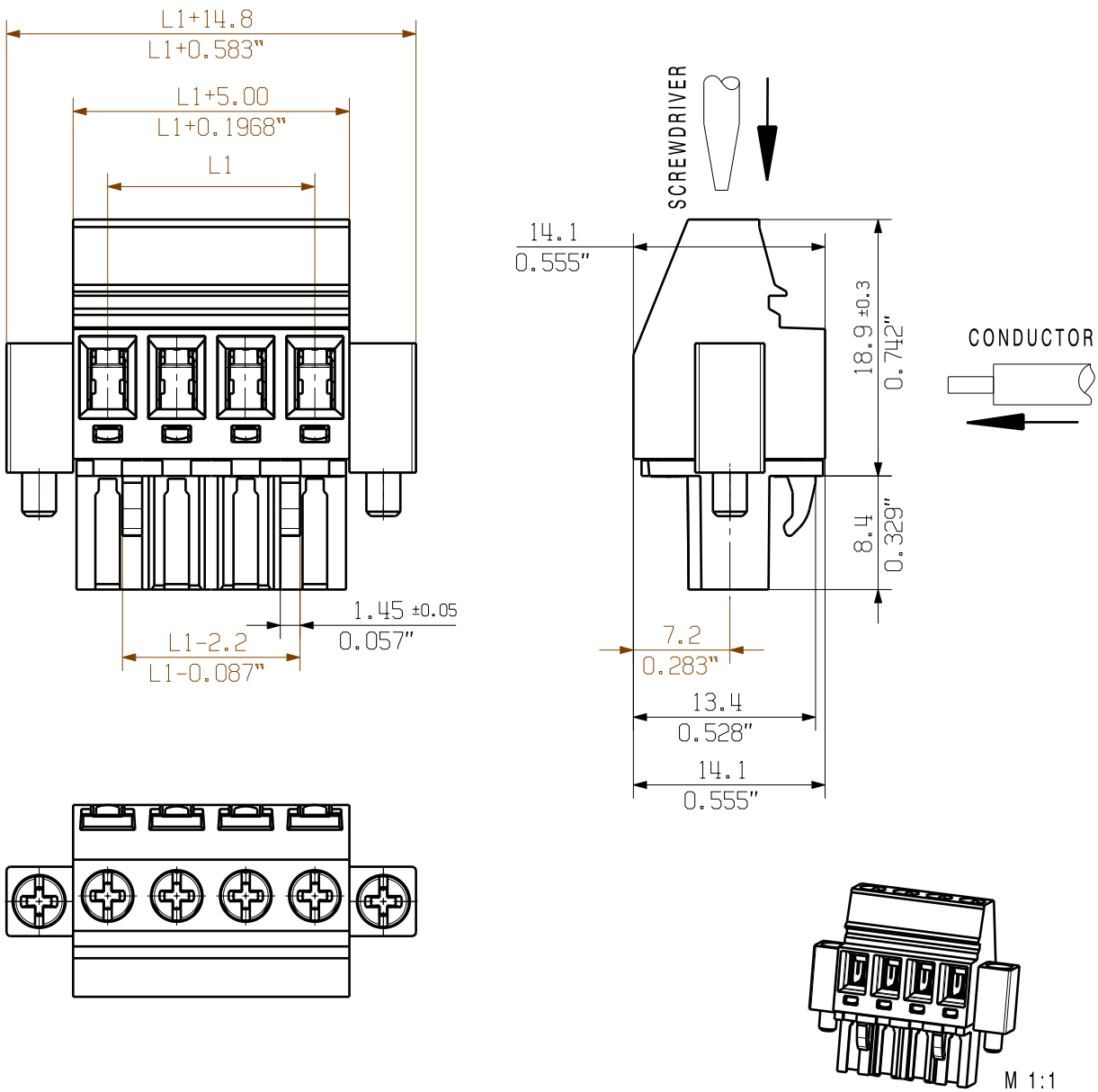
Dimensions without tolerances are no check dimensions

The English version is binding

BLZP 5.00HC/04/270F



BLZP 5.00HC/04/90F



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.

P = 5.00 RASTER/PITCH

n = POLZAHL/NO OF POLES

SHOWN: BLZP 5.00HC/04/90F
BLZP 5.00HC/04/270F

24	115,00	4,53
23	110,00	4,33
22	105,00	4,13
21	100,00	3,94
20	95,00	3,74
19	90,00	3,54
18	85,00	3,35
17	80,00	3,15
16	75,00	2,95
15	70,00	2,76
14	65,00	2,56
13	60,00	2,36
12	55,00	2,17
11	50,00	1,97
10	45,00	1,77
9	40,00	1,57
8	35,00	1,38
7	30,00	1,18
6	25,00	0,98
5	20,00	0,79
4	15,00	0,59
3	10,00	0,39
2	5,00	0,20
n	L1 [mm]	L1 [inch]

GENERAL TOLERANCE:
DIN ISO 2768-m



99339/0
19.02.18 HERTEL_S 01

Modification

Weidmüller



Cat.no.: .

3 42481 06

Drawing no. Issue no.
Sheet 02 of 04 sheets



Scale: 2:1

Supersedes: .

Date	Name
Drawn	19.02.2018 HERTEL_S
Responsible	HERTEL_S
Checked	26.02.2018 HELIS_MA
Approved	LANG_T

BLZP 5.00HC/./90/270
BUCHSENLEISTE
SOCKET BLOCK

Product file: BLZP 5.0X WG

7157