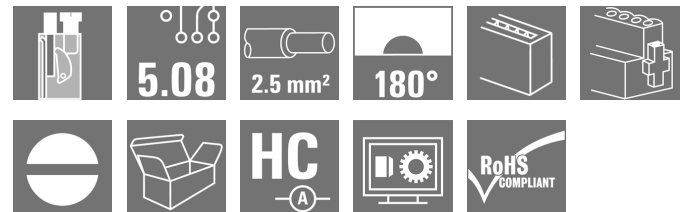


BLT 5.08HC/16/180F SN OR BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image**

Female plugs with TOP screw connection system for connecting wires with straight outlet direction and screw flange. The female connectors provide space for labelling and can be coded. HC = High Current.

General ordering data

Version	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 16, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box
Order No.	1844130000
Type	BLT 5.08HC/16/180F SN OR BX
GTIN (EAN)	4032248356058
Qty.	18 pc(s).
Product data	IEC: 400 V / 27 A / 0.2 - 2.5 mm² UL: 300 V / 17 A / AWG 26 - AWG 14
Packaging	Box

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Technical data**Dimensions and weights**

Depth	31.8 mm	Depth (inches)	1.252 inch
Height	12.2 mm	Height (inches)	0.48 inch
Width	91.08 mm	Width (inches)	3.586 inch
Net weight	39.86 g		

System Parameters

Product family	OMNIMATE Signal - series BL/SL 5.08		
Type of connection	Field connection		
Wire connection method	TOP connection		
Pitch in mm (P)	5.08 mm		
Pitch in inches (P)	0.2 inch		
Conductor outlet direction	180°		
Number of poles	16		
L1 in mm	76.2 mm		
L1 in inches	3 inch		
Number of rows	1		
Pin series quantity	1		
Rated cross-section	2.5 mm ²		
Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch		
Protection degree	IP20		
Volume resistance	≤5 mΩ		
Can be coded	Yes		
Stripping length	13 mm		
Clamping screw	M 2.5		
Screwdriver blade	0.6 x 3.5		
Screwdriver blade standard	DIN 5264		
Plugging cycles	25		
Plugging force/pole, max.	8 N		
Pulling force/pole, max.	7 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	UL 94 flammability rating	V-0
Contact material	CuSn	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.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 28

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Technical data

Wire connection cross section AWG, max.	AWG 14		
Solid, min. H05(07) V-U	0.2 mm ²		
Solid, max. H05(07) V-U	2.5 mm ²		
Flexible, min. H05(07) V-K	0.2 mm ²		
Flexible, max. H05(07) V-K	2.5 mm ²		
w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm ² min.			
w. plastic collar ferrule, DIN 46228 pt 4, 1.5 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.	1.5 mm ²		
Plug gauge in accordance with EN 60999 a x b; ø	2.4 mm x 1.5 mm ; 2.4 mm		
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm ²
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-end ferrule	H0.5/18 OR
	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm ²
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire-end ferrule	H1.0/18 GE
	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm ²
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire-end ferrule	H1.5/18D SW
		Stripping length	nominal 12 mm
Recommended wire-end ferrule		H1.5/12	
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)	27 A
Rated current, max. number of poles (Tu=20°C)	19 A	Rated current, min. number of poles (Tu=40°C)	24 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 100 A

Rated data acc. to CSA

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)	15 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 14

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Technical data**Packing**

Packaging	Box	VPE length	338 mm
VPE width	130 mm	VPE height	33 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 of material, date clock	
	Evaluation	available	
	Test	durability	
	Evaluation	passed	
Test: Misengagement (Non-interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.06	
	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 0.08 mm ²
		Type of conductor and conductor cross-section	stranded 0.08 mm ²
		Type of conductor and conductor cross-section	solid 2.5 mm ²
		Type of conductor and conductor cross-section	stranded 2.5 mm ²
		Type of conductor and conductor cross-section	AWG 26/1
		Type of conductor and conductor cross-section	AWG 26/19
		Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 14/19
	Evaluation	passed	

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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 28/1
	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 ²
	Type of conductor and conductor cross-section	stranded 0.5 mm ²
Evaluation	passed	
Requirement	0.7 kg	
Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm ²
	Type of conductor and conductor cross-section	stranded 2.5 mm ²
	Type of conductor and conductor cross-section	AWG 14/1
	Type of conductor and conductor cross-section	AWG 14/19
Evaluation	passed	

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Technical data

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥5 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 28/1
	Evaluation	passed	
	Requirement	≥10 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 26/19
	Evaluation	passed	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm ²
		Type of conductor and conductor cross-section	stranded 0.5 mm ²
	Evaluation	passed	
	Requirement	≥40 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 14/19
	Evaluation	passed	
	Requirement	≥50 N	
	Conductor type	Type of conductor and conductor cross-section	solid 2.5 mm ²
		Type of conductor and conductor cross-section	stranded 2.5 mm ²
	Evaluation	passed	

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	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

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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 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 • Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes. • 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	UL Website
Certificate No. (cURus)	E60693

Downloads

Approval/Certificate/Document of Conformity	CB Certificate CB Testreport Declaration of the Manufacturer
Engineering Data	CAD data – STEP
Engineering Data	WSCAD
Product Change Notification	20220106 BLT and BLZP in pitch 5.0x – Addition of a screw locking 20220106 BLT und BLZP im Raster 5.0x – Ergänzung einer Schraubensicherung
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 PO OMNIMATE EN

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Catalogue status 09.09.2022 / We reserve the right to make technical changes.

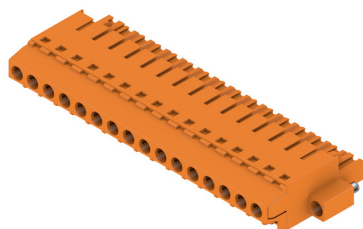
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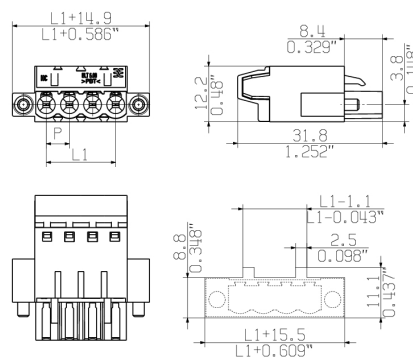
www.weidmueller.com

Drawings

Product image



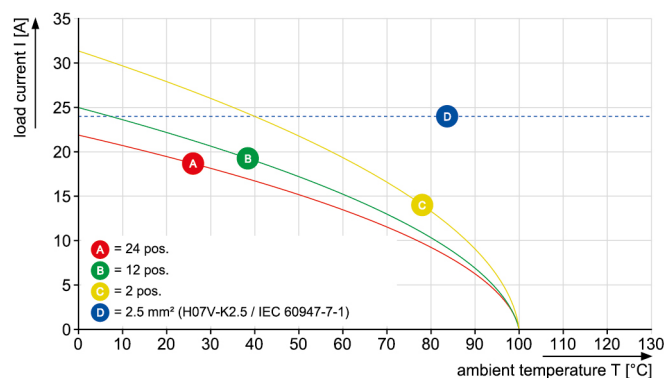
Dimensional drawing



MIN. FRONT PLATE CUT-OUT

Graph

BLT 5.08HC/./180 - SL-SMT 5.08HC/./90



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

DIE DEUTSCHE VERSION IST VERBINDLICH
THE GERMAN VERSION IS BINDING



1:1



P=PITCH

SHOWN: BLT 5.08HC/04/180F

P = 5.08 RASTER/PITCH

n = POLZAHL/NO OF POLES

24	106.84	4.600
23	111.76	4.400
22	106.68	4.200
21	101.60	4.000
20	96.52	3.800
19	91.44	3.600
18	86.36	3.400
17	81.28	3.200
16	76.20	3.000
15	71.12	2.800
14	66.04	2.600
13	60.96	2.400
12	55.88	2.200
11	50.80	2.000
10	45.72	1.800
9	40.64	1.600
8	35.56	1.400
7	30.48	1.200
6	25.40	1.000
5	20.32	0.800
4	15.24	0.600
3	10.16	0.400
2	5.08	0.200
n POLZAHL POLES	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 with 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 components 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-m		78309/4 01.04.15 HERTEL_S 03		CAT.NO.: .	
		MODIFICATION		Weidmüller	
		DATE	NAME	BLT 5.08HC/.. /180... BUCHSENLEISTE SOCKET BLOCK	
DRAWN		10.07.2003	KNOTH_G		
RESPONSIBLE			HERTEL_S		
SCALE: 2/1		CHECKED	01.04.2015	HELI_S_MA	PRODUCT FILE: BLT 5.08
SUPERSEDES: .		APPROVED		LANG_T	
				7143	

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DRAWING NO. SHEET 01 OF 02 SHEETS
ISSUE NO.