

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

### **Product image**



























Just as reliable as the millionfold proven original and featuring innovative details:

The BLF 5.08HC PUSH IN version of the BLZP 5.08HC female connector is not only different in terms of connection system; it also has a more compact design. Weidmüller's innovative PUSH IN spring connection system stands for the future of easy and tool-free wire connection. HC = High Current.

In terms of versatility, the BLF 5.08HC offers just as much as the version which served as a model:

- 3 tested-and-proven wire outlet directions provide the usual flexibility for application-specific design
- 4 flange variations and the patented release latch allow the locking concept to be based on the requirements of the user
- Use the BLF 5.08HC and SL 5.08HC plug combination to reach the max. rated specifications

#### General ordering data

Version	PCB plug-in connector, female plug, 5.08 mm, Number of poles: 13, 270°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm², Box
Order No.	<u>1983190000</u>
Туре	BLF 5.08HC/13/270LR SN OR BX
GTIN (EAN)	4032248687282
Qty.	24 pc(s).
Product data	IEC: 400 V / 24 A / 0.2 - 2.5 mm² UL: 300 V / 18.5 A / AWG 26 - AWG 12
Packaging	Вох



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# **Technical data**

### **Dimensions and weights**

Depth	29.6 mm	Depth (inches)	1.165 inch
Height	23.2 mm	Height (inches)	0.913 inch
Net weight	25.85 g	Width	75.86 mm
Width (inches)	2.987 inch		

### **System Parameters**

Product family	OMNIMATE Signal - series BL/SL 5.08	Type of connection	Field connection
Wire connection method	PUSH IN, Spring connection	Pitch in mm (P)	5.08 mm
Pitch in inches (P)	0.2 inch	Conductor outlet direction	270°
Number of poles	13	L1 in mm	60.96 mm
L1 in inches	2.4 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN V 57 106	/DE Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP 20
Volume resistance	≤5 mΩ	Can be coded	Yes
Stripping length	10 mm	Screwdriver blade	0.6 x 3.5
Screwdriver blade standard	DIN 5264	Plugging cycles	25
Plugging force/pole, max.	7 N	Pulling force/pole, max.	5.5 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	Contact material	CuSn
Contact surface	tinned	Layer structure of plug contact	48 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.	-30 °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,	AWG 26		
min.			
Wire connection cross section AWG,	AWG 12		
max.			
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, 0.25 mm <sup>2</sup>			
min.			
w. plastic collar ferrule, DIN 46228 pt 4	k, 2.5 mm <sup>2</sup>		
max.			
w. wire end ferrule, DIN 46228 pt 1,	0.25 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		



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Clampable conductor	Cross-section for conductor connection	Туре	fine-wired		
		nominal	0.5 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal 12 mm		
		Recommended wire- end ferrule	H0,5/16 OR		
		Stripping length	nominal 10 mm		
		Recommended wire- end ferrule	H0,5/10		
	Cross-section for conductor connection	Туре	fine-wired		
		nominal	0.75 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal 12 mm		
		Recommended wire- end ferrule	H0,75/16 W		
		Stripping length	nominal 10 mm		
		Recommended wire- end ferrule	H0,75/10		
	Cross-section for conductor connection	Туре	fine-wired		
		nominal	1 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal 12 mm		
		Recommended wire- end ferrule	H1,0/16D R		
		Stripping length	nominal 10 mm		
		Recommended wire- end ferrule	H1,0/10		
	Cross-section for conductor connection	Type	fine-wired		
		nominal	1.5 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal 10 mm		
		Recommended wire- end ferrule	H1,5/10		
		Stripping length	nominal 12 mm		
		Recommended wire- end ferrule	H1,5/16 R		
	Cross-section for conductor connection	nominal	2.5 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal 10 mm		
		Recommended wire- end ferrule	H2,5/10		
		Stripping length	nominal 13 mm		
		Recommended wire- end ferrule	H2,5/16DS BL		
Reference text	The outside diameter of the plastic collar should not be larger than the pitch (P). Length of ferrules				

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)	24 A
Rated current, max. number of poles (Tu=20°C)	19 A	Rated current, min. number of poles (Tu=40°C)	21 A
Rated current, max. number of poles (Tu=40°C)	16.5 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



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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 D / CSA)	300 V
Rated current (Use group B / CSA)	10 A	Rated current (Use group D / CSA)	10 A
Wire cross-section, AWG, min.	AWG 12	Wire cross-section, AWG, max.	AWG 26
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

#### Rated data acc. to UL 1059

	C The US
Rated voltage (Use group B / UL 1059)	300 V
Rated current (Use group B / UL 1059)	18.5 A

Certificate No. (cURus)

	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		E00093
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)	18.5 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**

Institute (cURus)

Packaging	Box	VPE length	0	
VPE width	0	VPE height	0	

### 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 identification, pitch, 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 / 11.08
	Test	180° turned with coding elements
	Evaluation	passed
	Test	visual examination
	Evaluation	passed



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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 / 04.08
	Conductor type	Type of conductor solid 0.2 mm² and conductor cross-section
		Type of conductor stranded 0.2 mm <sup>2</sup> and conductor cross-section
		Type of conductor solid 2.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 2.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor AWG 26/1 and conductor cross-section
		Type of conductor AWG 26/19 and conductor cross-section
		Type of conductor AWG 14/1 and conductor cross-section
		Type of conductor AWG 14/19 and conductor cross-section
	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 AWG 26/1 and conductor cross-section
		Type of conductor AWG 26/19 and conductor cross-section
	Evaluation	passed
	Requirement	0.3 kg
	Conductor type	Type of conductor H05V-U0.5 and conductor cross- section
		Type of conductor H05V-K0.5 and conductor cross-section
	Evaluation	passed
	Requirement	0.7 kg
	Conductor type	Type of conductor H07V-U2.5 and conductor cross-section
		Type of conductor H07V-K2.5 and conductor cross-section
	Evaluation	passed
	Requirement	0.9 kg
	Conductor type	Type of conductor AWG 12/1 and conductor cross-section
		Type of conductor AWG 12/19 and conductor cross-section
	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 AWG 26/1 and conductor cross-section
		Type of conductor AWG 26/19 and conductor cross-section
	Evaluation	passed
	Requirement	≥20 N
	Conductor type	Type of conductor H05V-U0.5 and conductor cross- section
		Type of conductor H05V-K0.5 and conductor cross-section
	Evaluation	passed
	Requirement	≥50 N
	Conductor type	Type of conductor H07V-U2.5 and conductor cross-section
		Type of conductor H07V-K2.5 and conductor cross-section
	Evaluation	passed
	Requirement	≥60 N
	Conductor type	Type of conductor AWG 12/1 and conductor cross-section
		Type of conductor AWG 12/19 and conductor cross-section
	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	ECLASS 11.0	27-46-02-02



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# **Technical data**

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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.
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
	<ul> <li>Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.</li> </ul>
	The test point can only be used as potential-pickup point.

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

### **Approvals**

Approvals	(F III
	C THE US LINE
BOLIO	C f

ROHS	Conform	
UL File Number Search	E60693	

### **Downloads**

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



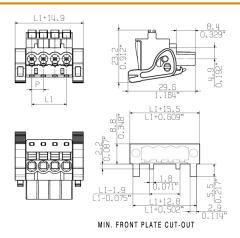
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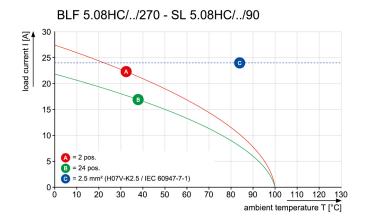
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# **Drawings**

### **Dimensional drawing**



### Graph





Uncompromising functionality High vibration resistance



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# Drawings

#### **Product benefits**



Solid PUSH IN contact Safe and durable

#### **Product benefits**



Cost-effective wiring
Quick and intuitive operation



Wide clamping range Tool-free wire connection



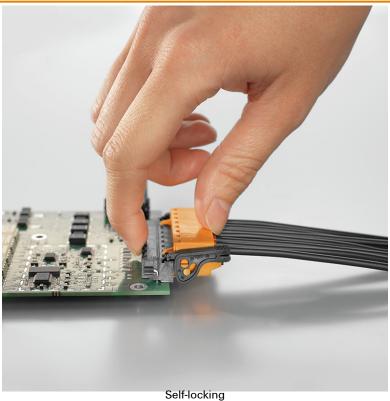
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# Drawings

#### **Product benefits**



**Uncompromising functionality** 

Immediately on plugging in

