

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: 14, 180°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm², Box
Order No.	<u>2541120000</u>
Туре	BLF 5.08HC/14/180F SN BK BX PRT
GTIN (EAN)	4050118553581
Qty.	18 pc(s).
Product data	IEC: 400 V / 24 A / 0.2 - 2.5 mm <sup>2</sup> UL: 300 V / 18.5 A / AWG 26 - AWG 12
Packaging	Вох



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# **Technical data**

### **Dimensions and weights**

Depth	27.7 mm	Depth (inches)	1.091 inch
Height	14.2 mm	Height (inches)	0.559 inch
Net weight	25.808 g	Width	80.92 mm
Width (inches)	3.186 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	180°			
Number of poles	14			
L1 in mm	66.04 mm			
L1 in inches	2.6 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	≤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			
Tightening torque	Torque type	Screw flange		
	Usage information	Tightening torque	min.	0.2 Nm
			max.	0.25 Nm

### **Material data**

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	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, min.	AWG 26
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>

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# **Technical data**

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 p			
min.			
w. plastic collar ferrule, DIN 46228 p max.	t 4, 2.5 mm²		
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm²		
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	2.8 mm x 2.0 mm		
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
	orosa section for conductor confidence	nominal	1 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
	wire end lerrule	Recommended wire- end ferrule	H1,0/16D R
		Stripping length	nominal 10 mm
		Recommended wire-	H1,0/10
		end ferrule	
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire- end ferrule	<u>H1,5/10</u>
		Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H1,5/16 R
	Cross-section for conductor connection	Туре	fine-wired
		nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 10 mm
		Recommended wire-	H2,5/10
		Stripping length	nominal 10 mm
		Recommended wire- end ferrule	H2,5/14DS BL
Reference text	The outside diameter of the plastic collar sho		

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# **Technical data**

#### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
tested acc. to standard	IEC 60664-1, IEC 61984	(Tu=20°C)	24 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	19 A	(Tu=40°C)	21 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	16.5 A	pollution degree II/2	400 V
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree III/2	320 V	pollution degree III/3	250 V
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree II/2	4 kV	class/ pollution degree III/2	4 kV
Rated impulse voltage for surge voltage		Short-time withstand current resistance	
class/ contamination degree III/3	4 kV		3 x 1s with 120 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 D / CSA)	10 A	Wire cross-section, AWG, min.	AWG 26
Wire cross-section, AWG, max.	AWG 12		

### Rated data acc. to UL 1059

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

### **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 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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# **Technical data**

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	Standard	DIN EN 60999-1 section 9.4 / 12.00
loosening of conductors	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-K0.5 and conductor cross-section		
		Type of conductor H05V-U0.5 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**

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	<ul> <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> </ul>						
				Wire end ferrule without plastic collar to DIN 46228/1			
				Wire end ferrule with plastic collar to DIN 46228/4			
	• P on drawing = pitch						
	Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.						
	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						
ROHS	Conform						
Downloads							
D 1 (0 t 1	O the state of the						
Brochure/Catalogue	Catalogues in PDF-format						



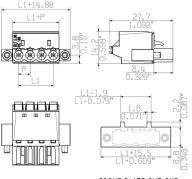
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## **Drawings**

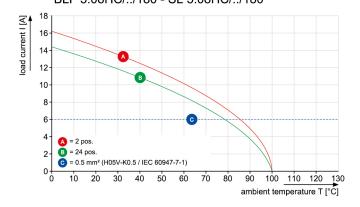
### **Dimensional drawing**



FRONT PLATE CUT-OUT

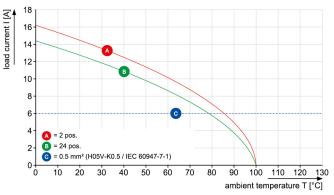
#### Graph

## BLF 5.08HC/../180 - SL 5.08HC/../180



### Graph

BLF 5.08HC/../180 - SL 5.08HC/../180





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