

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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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, 90°, PUSH IN with actuator, Clamping range, max.: 3.31 mm², Box
Order No.	<u>2578260000</u>
Туре	BLF 5.08HC/13/90F SN BK BX SO
GTIN (EAN)	4050118587777
Qty.	24 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	Box



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# **Technical data**

## **Dimensions and weights**

Depth	26.2 mm	Depth (inches)	1.031 inch
Height	20.6 mm	Height (inches)	0.811 inch
Width	75.84 mm	Width (inches)	2.986 inch
Net weight	27.531 g		

### **System Parameters**

Product family	OMNIMATE Signal - series BL/SL 5.08			
Type of connection	Field connection			
Wire connection method	PUSH IN with actuator			
Pitch in mm (P)	5.08 mm			
Pitch in inches (P)	0.2 inch			
Conductor outlet direction	90°			
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 VDE 57 106	Safe from finger touch			
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged			
Protection degree	IP20			
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
	, and the second	5 5 1	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	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.	



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Clampable conductor	Cross-section for conductor connection	Type	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	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- end ferrule	H2,5/10
		Stripping length	nominal 13 mm
		Recommended wire- end ferrule	H2,5/16DS BL



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# **Technical data**

#### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
	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 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	0 mm
VPE width	0 mm	VPE height	0 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 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 and conductor cross-section AWG 12/19
	Evaluation	passed

## Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	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	ECLASS 13.0	27460202



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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 propert 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				
	<ul> <li>P on drawing = pitch</li> <li>Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.</li> <li>The test point can only be used as potential-pickup point.</li> </ul>				
					<ul> <li>In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC).</li> <li>During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> </ul>
					<ul> <li>Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>
Approvals					
ROHS	Conform				
Downloads					
Catalogues	Catalogues in PDF-format				
- 3					



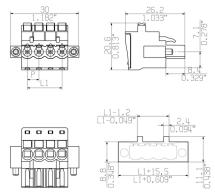
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# **Drawings**

## **Dimensional drawing**

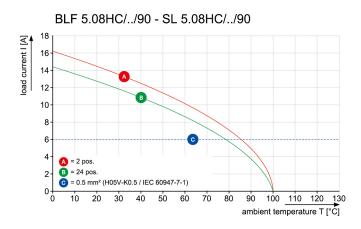


MIN. FRONT PLATE CUT-OUT

#### Graph

#### BLF 5.08HC/../90 - SL 5.08HC/../90 30 load current I [A] 25 20 15 10 5 = 24 pos © = 2.5 mm² (H07V-K2.5 / IEC 60947-7-1) 30 40 50 60 70 80 90 100 110 120 130 ambient temperature T [°C]

### 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