



#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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### **Product image**















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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: 16, 90°, PUSH IN with actuator, Clamping range, max.: 3.31 mm <sup>2</sup> , Box	
0 I N	, , ,	
Order No.	<u>1001670000</u>	
Туре	BLF 5.08HC/16/90 SN OR BX	
GTIN (EAN)	4032248693474	
Qty.	18 items	
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**

### **Approvals**

Approvals



ROHS	Conform
UL File Number Search	<u>UL Website</u>
Certificate No. (cURus)	E60693

### **Dimensions and weights**

Depth	26.2 mm	Depth (inches)	1.0315 inch
Height	20.7 mm	Height (inches)	0.815 inch
Width	81.28 mm	Width (inches)	3.2 inch
Net weight	30.4 g		

### **Environmental Product Compliance**

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

### **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)	0.200 "	Conductor outlet direction	90°
Number of poles	16	L1 in mm	76.20 mm
L1 in inches	3.000 "	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		

### **Material data**

PBT	Colour	orange
RAL 2000	Insulating material group	Illa
≥ 200	Moisture Level (MSL)	
V-0	Contact material	Cu-alloy
tinned	Layer structure of plug contact	48 µm Sn hot-dip tinned
-40 °C	Storage temperature, max.	70 °C
-50 °C	Operating temperature, max.	100 °C
-30 °C	Temperature range, installation, max.	100 °C
	RAL 2000 ≥ 200 V-0 tinned -40 °C -50 °C	RAL 2000 Insulating material group  ≥ 200 Moisture Level (MSL)  V-0 Contact material  tinned Layer structure of plug contact  -40 °C Storage temperature, max.  -50 °C Operating temperature, max.

### **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.	

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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			
min.			
w. plastic collar ferrule, DIN 46228 pt max.	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-	H0,5/10
		end ferrule	
	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-	H1,0/16D R
		Stripping length	nominal 10 mm
		Recommended wire-	H1,0/10
	Crease section for any director as marchine		fine serine d
	Cross-section for conductor connection	Type	fine-wired 1.5 mm <sup>2</sup>
	wire and forrule	nominal Stripping length	
	wire end ferrule	Recommended wire-	nominal 10 mm H1,5/10
		end ferrule Stripping length	nominal 12 mm
		Recommended wire-	nominal 12 mm H1,5/16 R
		end ferrule	
	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	<u>H2,5/10</u>
		Stripping length	nominal 13 mm
		Recommended wire- end ferrule	H2,5/16DS BL
Reference text	The outside diameter of the plastic collar show		: 1 (5) 1 11 (6 1

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# **Technical data**

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

### Rated data acc. to CSA

Institute (CSA)	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

Institute (cURus)	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)	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**

Packaging	Box	VPE length	348.00 mm
VPE width	136.00 mm	VPE height	32.00 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	
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 mm <sup>2</sup> and conductor cross-section	

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		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	
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	



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## **Technical data**

Evaluation	passed		
Requirement	≥20 N		
Conductor type	Type of conductor and conductor cross-section	H05V-U0.5	
	Type of conductor and conductor cross-section	H05V-K0.5	
Evaluation	passed		
Requirement	≥50 N		
Conductor type	Type of conductor and conductor cross-section	H07V-U2.5	
	Type of conductor and conductor cross-section	H07V-K2.5	
Evaluation	passed		
Requirement	≥60 N		
Conductor type	Type of conductor and conductor cross-section	AWG 12/1	
	Type of conductor and conductor cross-section	AWG 12/19	
Evaluation	passed		

### 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
- 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.
- In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
- $\bullet$  Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

#### Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	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	27-46-02-02	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		



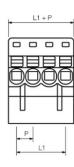
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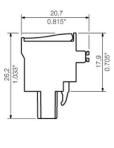
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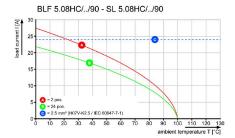
## **Drawings**

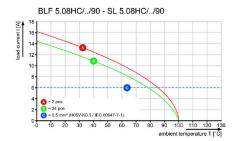
### **Dimensional drawing**





Graph Graph







Uncompromising functionalityHigh vibration resistance



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## **Drawings**

### **Product benefits**



Solid PUSH IN contactSafe and durable

### **Product benefits**



Cost-effective wiringQuick and intuitive operation

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### **Product benefits**



Wide clamping rangeTool-free wire connection