

#### 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: 3, 180°, PUSH IN, Spring connection, Clamping range, max.: 3.31 mm², Box
Order No.	<u>1364680000</u>
Туре	BLF 5.08HC/03/180 SN OR BX SO
GTIN (EAN)	4050118166590
Qty.	120 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	5.221 g	Width	15.24 mm
Width (inches)	0.6 inch		

### **System Parameters**

Product family	OMNIMATE Signal - series	Type of connection	
	BL/SL 5.08		Field connection
Wire connection method	PUSH IN, Spring	Pitch in mm (P)	
	connection		5.08 mm
Pitch in inches (P)	0.2 inch	Conductor outlet direction	180°
Number of poles	3	L1 in mm	10.16 mm
L1 in inches	0.4 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	2.5 mm <sup>2</sup>
Touch-safe protection acc. to DIN VD	E	Touch-safe protection acc. to DIN VDE	
57 106	Safe from finger touch	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	I, 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	Type	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	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 10 mm
		Recommended wire- end ferrule	H2,5/14DS BL

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

is to be chosen depending on the product and the rated voltage.



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# **Technical data**

#### 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

Institute (cURus)

Certificate No. (cURus)

Rated voltage (Use group B / UL 1059) 300 V
Rated current (Use group B / UL 1059) 18.5 A
Wire cross-section, AWG, min. AWG 26
Reference to approval values Specifications are maximum values, details see approval certificate.

Rated voltage (Use group D / UL 1059) 300 V
Rated current (Use group D / UL 1059) 10 A
Wire cross-section, AWG, max. AWG 12

#### **Packing**

Packaging	Box	VPE length	35 mm
VPE width	135 mm	VPE height	350 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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Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DI 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
		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
est for damage to and accidental	Standard	DIN EN 60999-1 section 9.4 / 12.00
osening of conductors	Requirement	0.2 kg
isososimig of conductors	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**

Impo	rtant	note
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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.			
	- The test point can only be used as potential-plokup point.			
	<ul> <li>Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>			

## **Approvals**

Approvals	c <b>FAL</b> us III	
ROHS	Conform	
UL File Number Search	E60693	



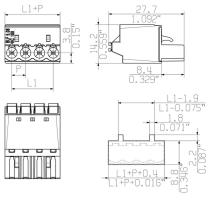
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# **Drawings**

## **Dimensional drawing**

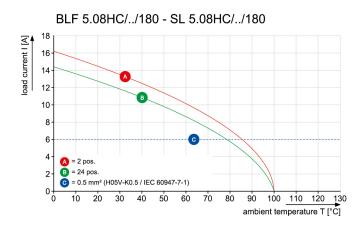


MIN. FRONT PLATE CUT-OUT

#### Graph

#### BLF 5.08HC/../180 - SL 5.08HC/../180 18 oad current I [A] 16 14 12 10 A = 2 pos. B = 24 pos. C = 0.5 mm<sup>2</sup> (H05V-K0.5 / IEC 60947-7-1) 30 40 50 60 70 80 90 100 110 120 130

### Graph





Uncompromising functionality High vibration resistance

ambient temperature T [°C]



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# Drawings

### **Product benefits**

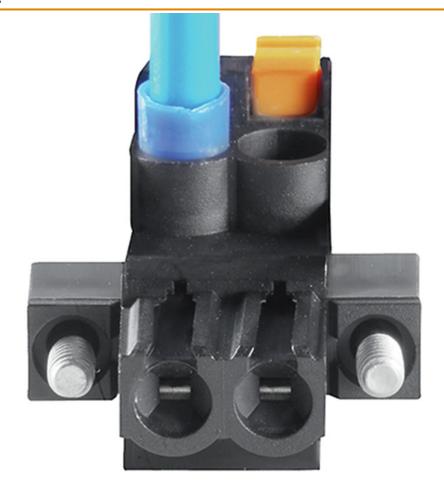


Solid PUSH IN contact
Safe and durable

### **Product benefits**



Cost-effective wiring
Quick and intuitive operation



Wide clamping range Tool-free wire connection