

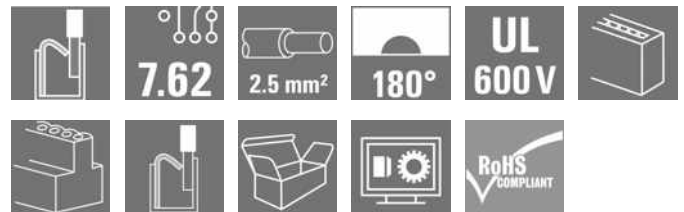
**BLF 7.62HP/04/180 SN BK BX**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**


180° female header with PUSH-IN connection technology for field wiring in 2.5 mm<sup>2</sup> with a 7.62 pitch.

Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1

Variants: without flange, external flange, release latch.

**General ordering data**

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN with actuator, Clamping range, max. : 2.5 mm <sup>2</sup> , Box
Order No.	<a href="#">1043850000</a>
Type	BLF 7.62HP/04/180 SN BK BX
GTIN (EAN)	403224877479 1
Qty.	60 pc(s).
Product data	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup> UL: 600 V / 20 A / AWG 20 - AWG 12
Packaging	Box

Creation date August 29, 2023 12:34:08 PM CEST

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**Technical data**
**Dimensions and weights**

Depth	28.1 mm	Depth (inches)	1.106 inch
Height	15.1 mm	Height (inches)	0.594 inch
Width	29.76 mm	Width (inches)	1.172 inch
Net weight	10.567 g		

**Temperatures**

Operating temperature, min.	-50 °C	Operating temperature, max.	100 °C
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**System Parameters**

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Field connection
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Conductor outlet direction	180°
Number of poles	4	L1 in mm	22.86 mm
L1 in inches	0.9 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
Protection degree	IP20	Can be coded	Yes
Stripping length	10 mm	Screwdriver blade	0.6 x 3.5
Plugging cycles	25	Plugging force/pole, max.	8.5 N
Pulling force/pole, max.	6 N		

**Material data**

Insulating material	PBT	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	tinned
Layer structure of plug contact	4...8 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.	-25 °C
Temperature range, installation, max.	100 °C		

**Conductors suitable for connection**

Clamping range, min.	0.08 mm <sup>2</sup>
Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 20
Wire connection cross section AWG, max.	AWG 12
Solid, min. H05(07) V-U	0.5 mm <sup>2</sup>
Solid, max. H05(07) V-U	1.5 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>
Flexible, max. H05(07) V-K	2.5 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm <sup>2</sup> min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm <sup>2</sup>

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## Technical data

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	Type	fine-wired
		nominal	0.5 mm <sup>2</sup>
wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H0.5/16 OR</a>
	Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H0.5/10</a>
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	<a href="#">H0.75/16 W</a>
	Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H0.75/10</a>
Cross-section for conductor connection	Type	fine-wired	
	nominal	1 mm <sup>2</sup>	
wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H1.0/16D R</a>
	Stripping length	nominal	10 mm
		Recommended wire-end ferrule	<a href="#">H1.0/10</a>
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	<a href="#">H1.5/10</a>
	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H1.5/16 R</a>
Cross-section for conductor connection	Type	fine-wired	
	nominal	2.5 mm <sup>2</sup>	
wire end ferrule	Stripping length	nominal	10 mm
	Recommended wire-end ferrule	<a href="#">H2.5/10</a>	
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, max. number of poles (Tu=20°C)	24 A	Rated current, min. number of poles (Tu=20°C)	24 A
Rated current, max. number of poles (Tu=40°C)	21 A	Rated current, min. number of poles (Tu=40°C)	23.8 A
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated impulse voltage for surge voltage class/ pollution degree III/3	6 kV	Rated voltage for surge voltage class / pollution degree III/3	630 V
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV
Clearance, min.	11.4 mm	Short-time withstand current resistance	3 x 1s with 180 A
		Creepage distance, min.	11.4 mm


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## Technical data

### Rated data acc. to CSA

Institute (CSA)				Certificate No. (CSA)	
				200039-1121690	
Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 V	Rated current (Use group B / CSA)	21 A
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group D / CSA)	5 A	Wire cross-section, AWG, min.	AWG 20
Rated current (Use group C / CSA)	21 A	Wire cross-section, AWG, max.	AWG 12	Reference to approval values	Specifications are maximum values, details - see approval certificate.

### Rated data acc. to UL 1059

Institute (cURus)				Certificate No. (cURus)	
				E60693	
Rated voltage (Use group B / UL 1059)	600 V	Rated voltage (Use group C / UL 1059)	600 V	Rated current (Use group B / UL 1059)	20 A
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group D / UL 1059)	5 A	Wire cross-section, AWG, min.	AWG 20
Rated current (Use group C / UL 1059)	20 A	Wire cross-section, AWG, max.	AWG 12	Reference to approval values	Specifications are maximum values, details - see approval certificate.

### Packing

Packaging	Box	VPE length	352 mm
VPE width	137 mm	VPE height	38 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
Test: Misengagement (Non-interchangeability)	Evaluation	passed
	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	180° turned without coding elements
	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 and conductor cross-section	solid 0.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 2.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 20/1
		Type of conductor and conductor cross-section	AWG 20/19
		Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 12/19
Evaluation	passed		
Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00	
	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	H05V-U0.5
		Type of conductor and conductor cross-section	H05V-K0.5
		Type of conductor and conductor cross-section	AWG 20/1
		Type of conductor and conductor cross-section	AWG 20/19
	Evaluation	passed	
	Requirement	0.7 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-U2.5
		Type of conductor and conductor cross-section	H07V-K2.5
		Type of conductor and conductor cross-section	AWG 14/1
	Evaluation	passed	
	Requirement	0.9 kg	
Conductor type	Type of conductor and conductor cross-section	AWG 12/19	
Evaluation	passed		

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## Technical data

Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	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
		Type of conductor and conductor cross-section	AWG 20/1
		Type of conductor and conductor cross-section	AWG 20/19
	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
		Type of conductor and conductor cross-section	AWG 14/1
	Evaluation	passed	
	Requirement	≥60 N	
	Conductor type	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	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

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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 style="list-style-type: none"> <li>• Additional variants 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> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> <li>• Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Product Change Notification	<a href="#">20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors</a> <a href="#">20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder</a>
User Documentation	<a href="#">Operating Instruction BLF</a> <a href="#">QR-Code product handling video</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL_BASE_STATION_EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a> <a href="#">PO OMNIMATE EN</a>

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Catalogue status 18.08.2023 / We reserve the right to make technical changes.

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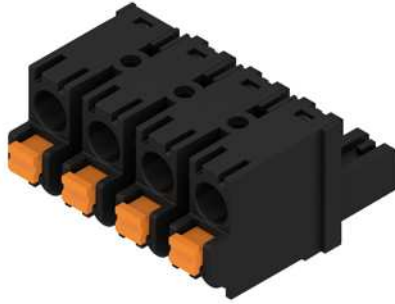
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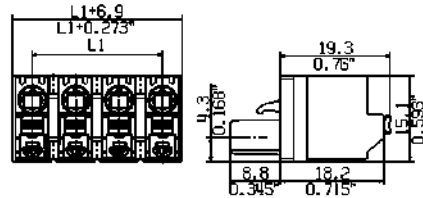
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**Drawings**

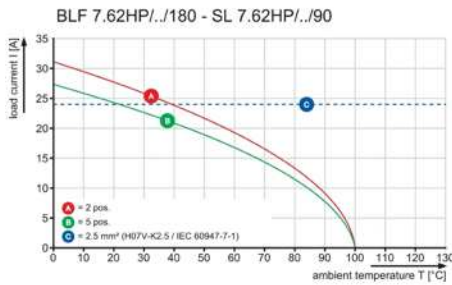
**Product image**



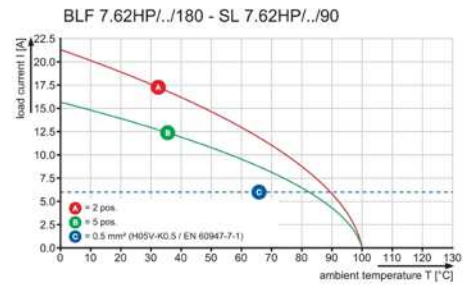
**Dimensional drawing**



**Graph**



**Graph**



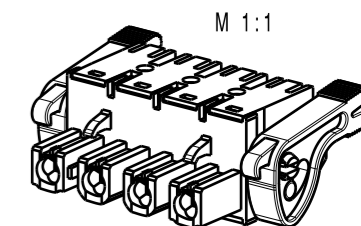
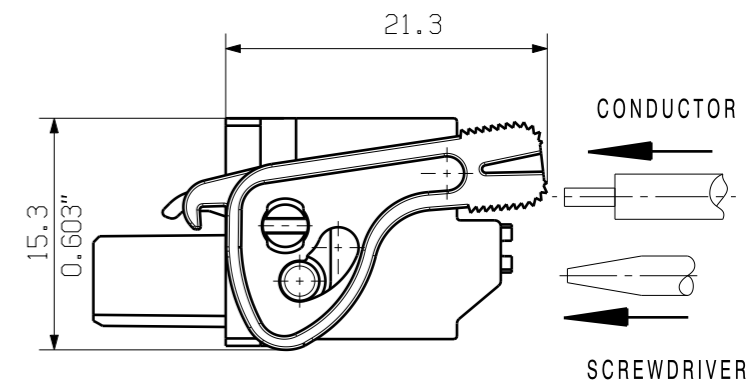
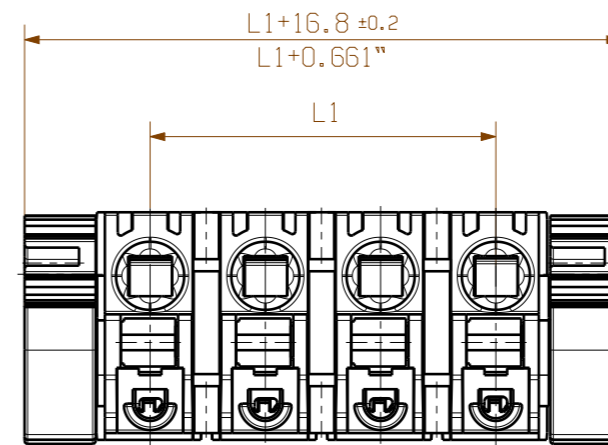
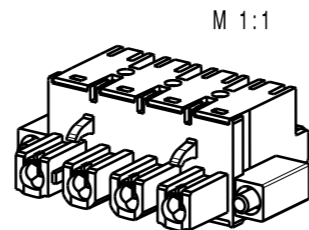
**Product benefits**



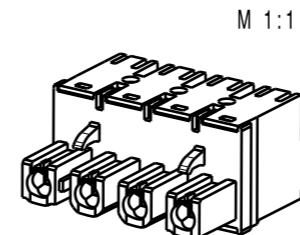
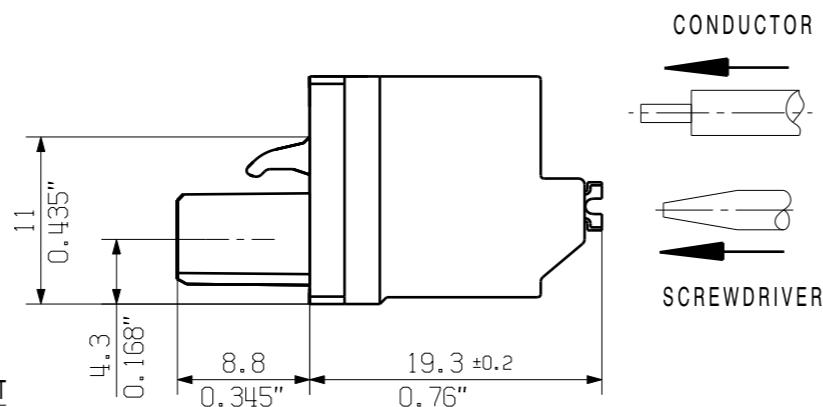
Vibration-proof connection

SHOWN: BLF7.62HP/04/ 180F

SHOWN: BLF7.62HP/04/ 180LR

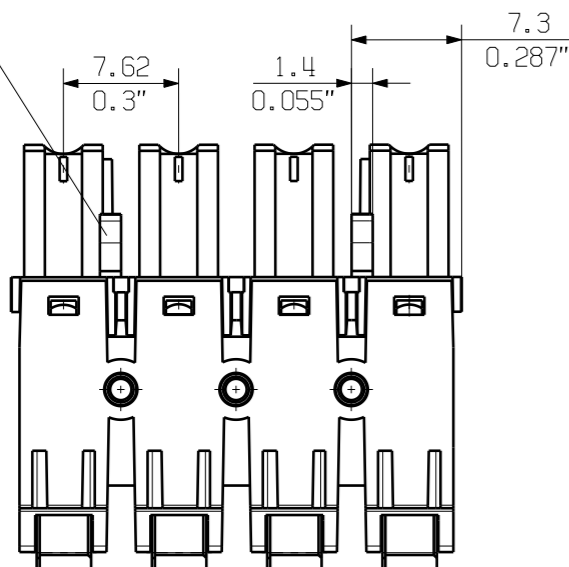


SHOWN: BLF7.62HP/04/ 180



2-POL. VERSION NUR DIESER HAKEN  
2-POS. VERSION THIS HOOK ONLY

TEST POINT



12	83,82	3,300
11	76,20	3,000
10	68,58	2,700
9	60,96	2,400
8	53,34	2,100
7	45,72	1,800
6	38,10	1,500
5	30,48	1,200
4	22,86	0,900
3	15,24	0,600
2	7,62	0,300
n	L1 [mm]	L1 [Inch]

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

	97601/5 20.09.17 HELIS_MA 00		Cat.no.: .	
	GENERAL TOLERANCES DIN ISO 2768-m			
	Modification		<b>3 46060</b>	
	Drawn	Date	Name	Drawing no. Sheet 01 of 02 sheets
Scale: 2:1	Responsible	24.04.2017	HELIS_MA	<b>BLF 7.62HP/././180</b> BUCHSENLEISTE SOCKET BLOCK
	Checked	20.09.2017	HERTEL_S	
Supersedes: .	Approved		LANG_T	Product file: BLF/SLF 7.62 <span style="float: right;">7381</span>