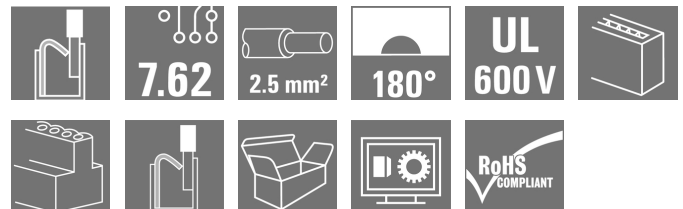


**OMNIMATE Power - series BL/SL 7.62HP
BLF 7.62HP/03/180 SN BK BX**

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany
Fon: +49 5231 14-0
Fax: +49 5231 14-292083
www.weidmueller.com

Product image

Similar to illustration

180° female header with PUSH-IN connection technology
for field wiring in 2.5 mm² 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

Type	BLF 7.62HP/03/180 SN BK BX
Order No.	1043840000
Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, PUSH IN, Clamping range, max. : 2.5 mm ² , Box
GTIN (EAN)	4032248774784
Qty.	78 pc(s).
Product data	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ² UL: 600 V / 20 A / AWG 20 - AWG 12
Packaging	Box

Creation date August 16, 2020 2:08:14 AM CEST

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Technical data

Dimensions and weights

Height	15.1 mm	Height (inches)	0.594 inch
Depth	28.1 mm	Depth (inches)	1.106 inch
Net weight	7.893 g		

System Parameters

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Field connection
Wire connection method	PUSH IN	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Number of poles	3
L1 in mm	15.24 mm	L1 in inches	0.6 inch
Number of rows	1	Pin series quantity	1
Rated cross-section	2.5 mm ²	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Touch-safe protection acc. to DIN VDE 0470	IP 20	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 of operational elements	orange	Material of operational elements	PBT
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
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 ²
Clamping range, max.	2.5 mm ²
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 ²
Solid, max. H05(07) V-U	1.5 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	2.5 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	2.5 mm ²
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired		
		nominal	0.5 mm ²		
	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 ²		
	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	Type	fine-wired		
		nominal	1 mm ²		
	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 ²		
	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	Type	fine-wired		
		nominal	2.5 mm ²		
	wire end ferrule	Stripping length	nominal	10 mm	
		Recommended wire-end ferrule	H2.5/10		
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.				
Max. clamping range	2.5 mm ²				

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 II/2	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 D / CSA)	600 V
Rated current (Use group C / CSA)	21 A
Wire cross-section, AWG, min.	AWG 20
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / CSA)	600 V
Rated current (Use group B / CSA)	21 A
Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, max.	AWG 12

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 D / UL 1059)	600 V
Rated current (Use group C / UL 1059)	20 A
Wire cross-section, AWG, min.	AWG 20
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)	600 V
Rated current (Use group B / UL 1059)	20 A
Rated current (Use group D / UL 1059)	5 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	180° turned without coding elements
	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 and conductor cross-section	solid 0.5 mm ²
		Type of conductor and conductor cross-section	stranded 0.5 mm ²
		Type of conductor and conductor cross-section	solid 2.5 mm ²
		Type of conductor and conductor cross-section	stranded 2.5 mm ²
		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
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09
eClass 10.0	27-44-03-09	UNSPSC	30-21-18-01

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Technical data

Notes

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
- 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.
- Crimping shape "A" for wire end ferrules with PZ 6/5 crimping tool recommended.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

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.

Approvals

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

[FL DRIVES EN](#)
[MB DEVICE MANUF. EN](#)
[FL DRIVES DE](#)
[CAT 2 PORTFOLIOGUIDE EN](#)
[FL HEATING ELECTR EN](#)
[FL APPL INVERTER EN](#)
[FL_BASE_STATION_EN](#)
[FL ELEVATOR EN](#)
[FL POWER SUPPLY EN](#)
[FL 72H SAMPLE SER EN](#)
[PO OMNIMATE EN](#)

Engineering Data

[EPLAN, WSCAD](#)

Engineering Data

[STEP](#)

White paper power electronics connected correctly

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User Documentation

[Operating Instruction BLF](#)
[QR-Code product handling video](#)

White paper UL 600 V

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White paper PUSH IN wire connection

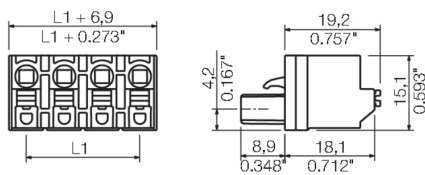
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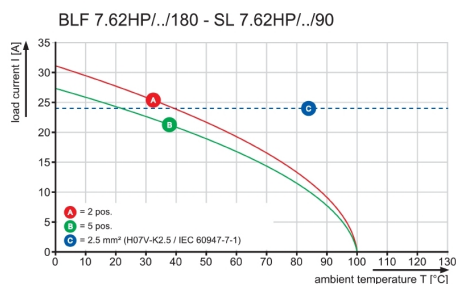
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Drawings

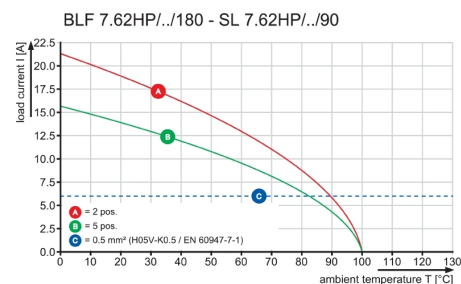
Dimensional drawing



Graph



Graph



Product benefits



Vibration-proof connection

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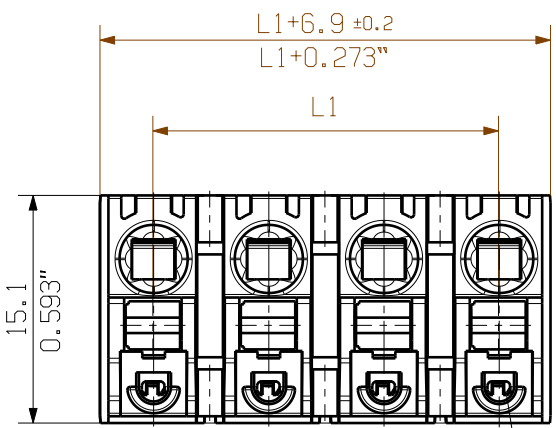
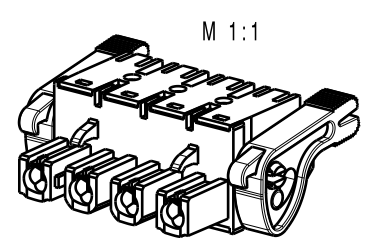
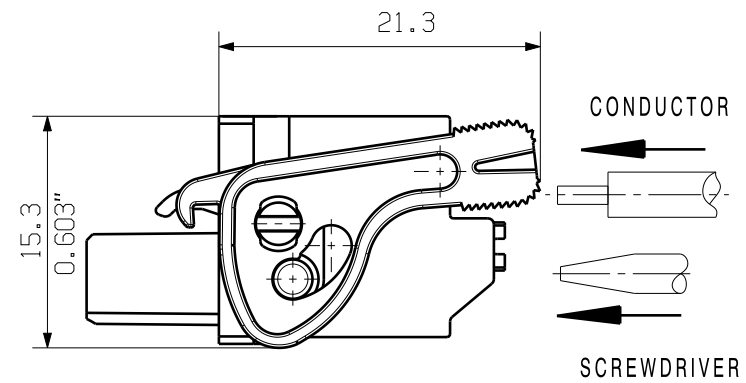
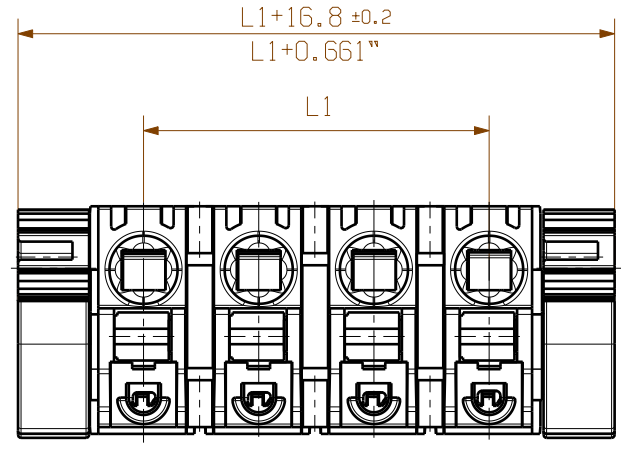
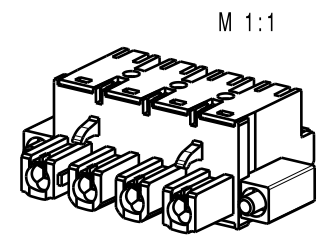
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Dimensions without tolerances are no check dimensions

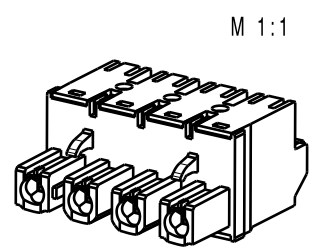
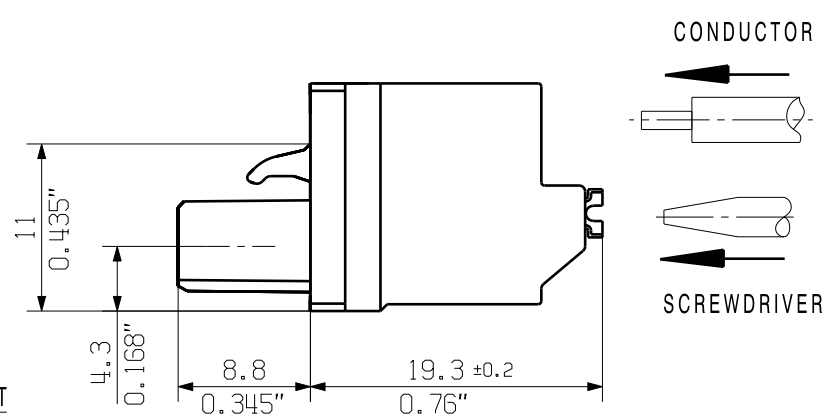
The English version is binding

SHOWN: BLF7.62HP/04/ 180F

SHOWN: BLF7.62HP/04/ 180LR

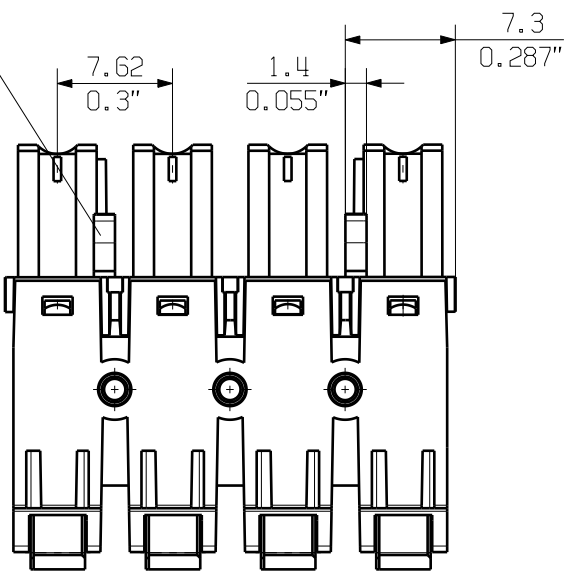


SHOWN: BLF7.62HP/04/ 180



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

TEST POINT



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.

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]

GENERAL TOLERANCES
DIN ISO 2768-m

97601/5
20.09.17 HELIS_MA
00

Modification

Date

Name

Drawn

24.04.2017

HELIS_MA

Responsible

KRUG_M

Checked

20.09.2017

HERTEL_S

Approved

LANG_T

Cat.no.: .

3 46060

Drawing no. 07
Sheet 01 of 02 sheets

BLF 7.62HP/./180
BUCHSENLEISTE
SOCKET BLOCK

Product file: BLF/SLF 7.62

7381