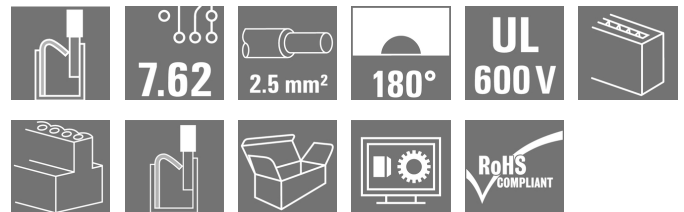


**OMNIMATE Power - series BL/SL 7.62HP  
BLF 7.62HP/12/180 SN BK BX**

**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 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**

Type	BLF 7.62HP/12/180 SN BK BX
Order No.	<a href="#">1227410000</a>
Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 12, PUSH IN, Clamping range, max.: 2.5 mm <sup>2</sup> , Box
GTIN (EAN)	4050118011555
Qty.	18 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 May 2, 2020 3:39:16 PM CEST

**OMNIMATE Power - series BL/SL 7.62HP**  
**BLF 7.62HP/12/180 SN BK BX**

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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	31.778 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	12
L1 in mm	83.82 mm	L1 in inches	3.3 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	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 <sup>8</sup> 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.	-25 °C
Storage temperature, max.	50 °C	Max. relative humidity during storage	70 %
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>
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm

Creation date May 2, 2020 3:39:16 PM CEST

**OMNIMATE Power - series BL/SL 7.62HP**  
**BLF 7.62HP/12/180 SN BK BX**

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**Technical data**

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.			
Max. clamping range	2.5 mm <sup>2</sup>			

**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)	24 A	Rated current, min. number of poles (Tu=40°C)	23.8 A
Rated current, max. number of poles (Tu=40°C)	21 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated voltage for surge voltage class / pollution degree III/3	630 V
Rated impulse voltage for surge voltage class/ pollution degree II/2	6 kV	Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 180 A
Clearance, min.	11.4 mm	Creepage distance, min.	11.4 mm


**OMNIMATE Power - series BL/SL 7.62HP  
BLF 7.62HP/12/180 SN BK BX**

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**Technical data****Rated data acc. to CSA**

Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	21 A
Rated current (Use group C / CSA)	21 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 20	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 C / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	20 A
Rated current (Use group C / UL 1059)	20 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Packing**

Packaging	Box	VPE length	0
VPE width	0	VPE height	0

**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		

**Notes**

Notes	<ul style="list-style-type: none"> <li>• Additional colours 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> </ul>
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.

**Data sheet**

**OMNIMATE Power - series BL/SL 7.62HP  
BLF 7.62HP/12/180 SN BK BX**

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**Technical data**

**Approvals**

Approvals



ROHS Conform

**Downloads**

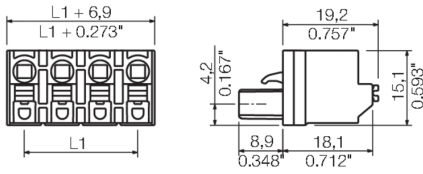
Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Brochure/Catalogue	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">CAT 2 PORTFOLIOGUIDE EN</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL 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>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
Engineering Data	<a href="#">STEP</a>
White paper power electronics connected correctly	<a href="#">Download Whitepaper</a>
User Documentation	<a href="#">Operating Instruction BLF</a> <a href="#">QR-Code product handling video</a>
White paper UL 600 V	<a href="#">Download Whitepaper</a>
White paper PUSH IN wire connection	<a href="#">Download Whitepaper</a>

**OMNIMATE Power - series BL/SL 7.62HP  
BLF 7.62HP/12/180 SN BK BX**

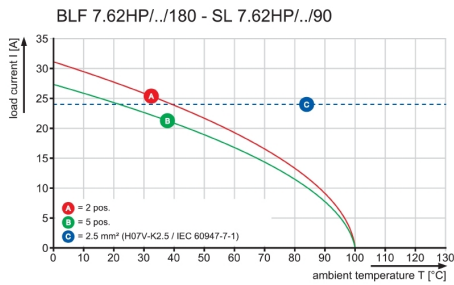
**Weidmüller Interface GmbH & Co. KG**  
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**Drawings**

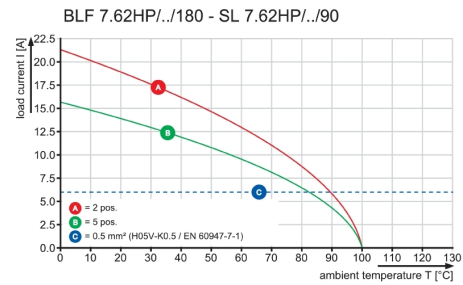
**Dimensional drawing**



**Graph**



**Graph**



**Product benefits**



Vibration-proof connection

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**Mating connector (fully pluggable)**
**SL 7.62HP/270G**

**Power on board - 100% safety, 100% integration, 100% cost-effectiveness:**

The compact, efficient solution for UL-600V applications in the lower performance range up to 12 kVA

- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1

The slimming diet for multiple-stage device series:  
Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 270° outlet angle

**General ordering data**

Type	SL 7.62HP/12/270G 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1472350000</a>	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 12, 270°, Solder pin length (l): 3.2 mm, black, Box	IEC: 630 V / 27.5 A UL: 300 V / 20 A	Box
GTIN (EAN)	4050118317503			
Qty.	50 pc(s).			
Type	SL 7.62HP/12/270G 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1472590000</a>	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 12, 270°, Solder pin length (l): 3.2 mm, orange, Box	IEC: 630 V / 27.5 A UL: 300 V / 20 A	Box
GTIN (EAN)	4050118317725			
Qty.	50 pc(s).			

**OMNIMATE Power - series BL/SL 7.62HP  
BLF 7.62HP/12/180 SN BK BX**

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Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
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**Mating connector (fully pluggable)**
**SL 7.62HP/90G**

**Power on board - 100% safety, 100% integration, 100% cost-effectiveness:**

The compact, efficient solution for UL-600V applications in the lower performance range up to 12 kVA

- 29 A at 400 V (IEC)
- 20 A at 300 V (UL)
- Single compartment mating profile
- Clamping range: 0.08 - 4 mm<sup>2</sup> / AWG 28 - 12

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1

The slimming diet for multiple-stage device series:  
Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 90° outlet angle

**General ordering data**

Type	SL 7.62HP/12/90G 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1980470000</a>	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 12, 90°, Solder pin length (l): 3.2 mm, tinned, orange, Box	IEC: 630 V / 29 A UL: 300 V / 20 A	Box
GTIN (EAN)	4032248675524			
Qty.	50 pc(s).			
Type	SL 7.62HP/12/90G 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1059570000</a>	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 12, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 630 V / 29 A UL: 300 V / 20 A	Box
GTIN (EAN)	4032248807383			
Qty.	50 pc(s).			



**OMNIMATE Power - series BL/SL 7.62HP  
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Fax: +49 5231 14-292083  
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**Mating connector (fully pluggable)**
**SL 7.62HP/180G**

**Power on board - 100% safety, 100% integration, 100% cost-effectiveness:**

The compact, efficient solution for UL-600V applications in the lower performance range.

High-performance male header for applications up to 12 kVA:

- 29 A at 400 V (IEC)
- 20 A at 600 V (UL)
- Single compartment mating profile

Assisting in device approval:

- Meets the requirements for 600 V according to UL 508 / UL840.
- Meets the increased requirements on touch safety as per IEC68100-5-1 when combined with female header BLZ 7.62 HP

The slimming diet for multiple-stage device series:

Reduce the size and cut costs in the high-volume lower performance range without compromising device approval!

Male header, 180° outlet direction, without flange

**General ordering data**

Type	SL 7.62HP/12/180G 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1048970000</a>	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 12, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box	IEC: 630 V / 29 A UL: 300 V / 20 A	Box
GTIN (EAN)	4032248786947			
Qty.	50 pc(s).			
Type	SL 7.62HP/12/180G 3.2SN ...	Version	Product data	Packaging
Order No.	<a href="#">1122650000</a>	PCB plug-in connector, male header, closed side, THT solder connection, 7.62 mm, Number of poles: 12, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box	IEC: 630 V / 29 A UL: 300 V / 20 A	Box
GTIN (EAN)	4032248904815			
Qty.	50 pc(s).			

**OMNIMATE Power - series BL/SL 7.62HP  
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**Accessories**

**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip



**General ordering data**

Type	SDS 0.6X3.5X100	Version
Order No.	<a href="#">9008330000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm
GTIN (EAN)	4032248056286	
Qty.	1 pc(s).	

**PZ**

**Crimping tools for wire end ferrules, with and without plastic collars**

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation



**General ordering data**

Type	PZ 6/5	Version
Order No.	<a href="#">9011460000</a>	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> , Trapezoidal indentation crimp
GTIN (EAN)	4008190165352	
Qty.	1 pc(s).	

## OMNIMATE Power - series BL/SL 7.62HP BLF 7.62HP/12/180 SN BK BX

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# Accessories

### Slotted screwdriver

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip



### General ordering data

Type	SDIS 0.6X3.5X100	Version	
Order No.	<a href="#">9008390000</a>	Screwdriver, Blade width (B): 3.5 mm, Blade length: 100 mm, Blade thickness (A): 0.6 mm	
GTIN (EAN)	4032248056354		
Qty.	1 pc(s).		

### Coding elements



**Only connects what is supposed to be connected: the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

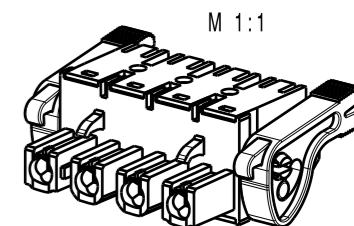
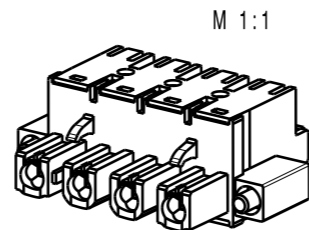
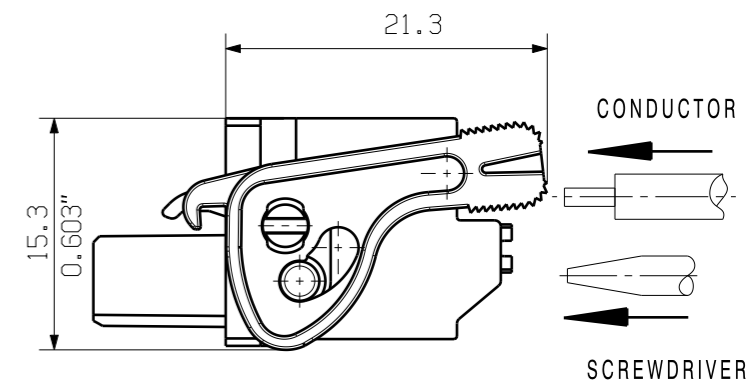
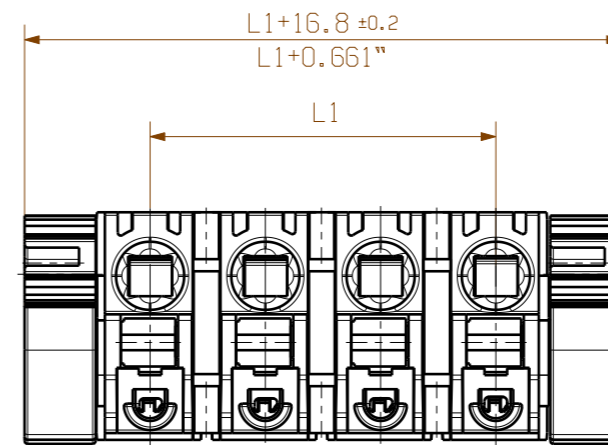
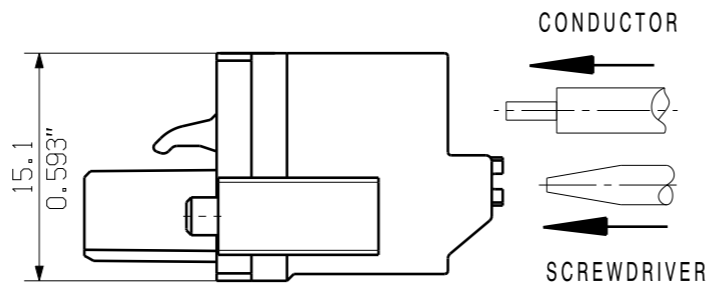
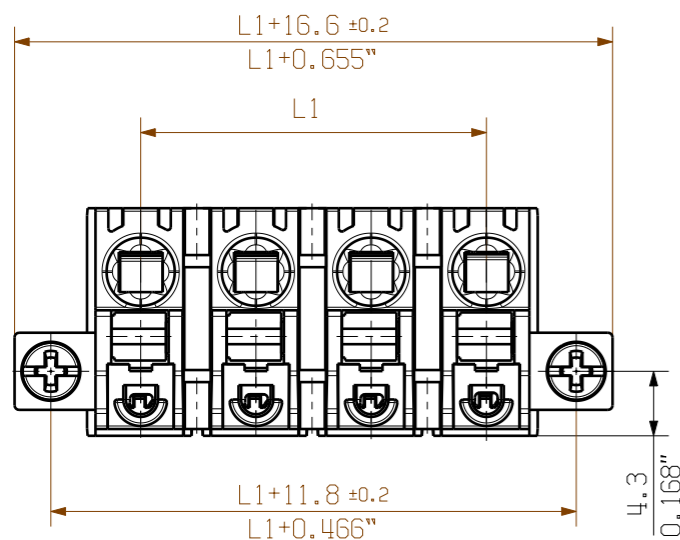
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

### General ordering data

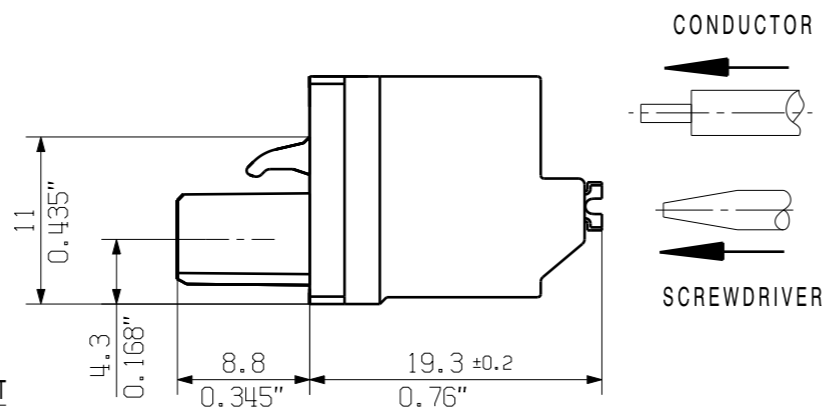
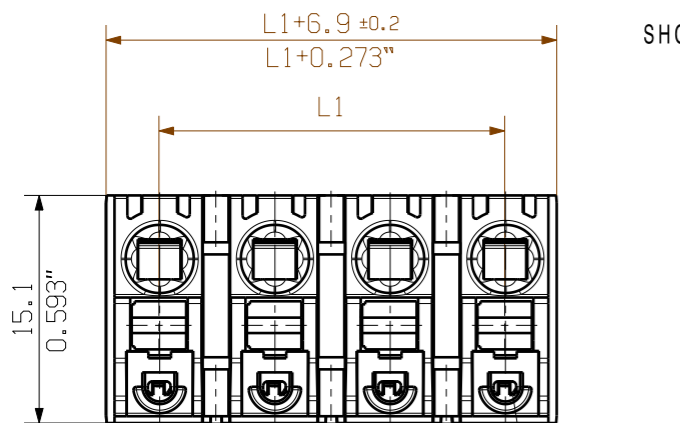
Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<a href="#">1545710000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4008190087142	of poles: 1		
Qty.	50 pc(s).			

SHOWN: BLF7.62HP/04/ 180F

SHOWN: BLF7.62HP/04/ 180LR

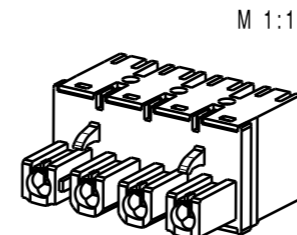
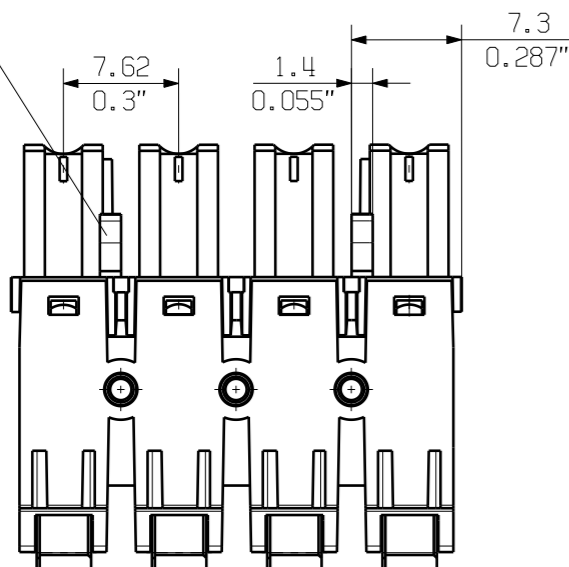


SHOWN: BLF7.62HP/04/ 180



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	Drawing no. Sheet 01 of 02 sheets	
	Responsible	Name	<b>BLF 7.62HP/././180</b> BUCHSENLEISTE SOCKET BLOCK	
Scale: 2:1	Checked	Date	Product file: BLF/SLF 7.62	
Supersedes: .	Approved	Name	7381	