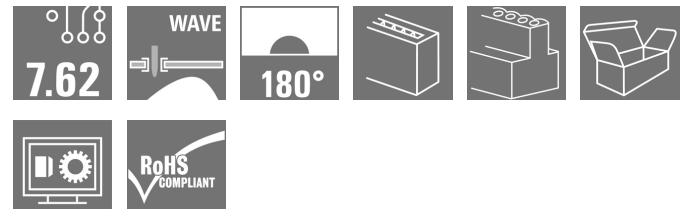


## OMNIMATE Power - series BL/SL 7.62HP BLL 7.62HP/05/180 3.2SN OR BX

**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 for the PCB with a pitch of 7.62.

Meets IEC 61800-5-1 requirements and enables UL approval as per UL840 600 V. Ideal touch-safe solution for the power output and intermediate circuit applications.

The mating profile guarantees touch safety of >3 mm as per IEC61800-5-1.

Variants: without flange, with screw flange or with soldered flange.

### General ordering data

Type	BLL 7.62HP/05/180 3.2SN OR BX
Order No.	<a href="#">1122050000</a>
Version	PCB plug-in connector, female header, closed side, THT solder connection, 7.62 mm, Number of poles: 5, 180°, Solder pin length (l): 3.2 mm, tinned, orange, Box
GTIN (EAN)	4032248903092
Qty.	48 pc(s).
Product data	IEC: 630 V / 24 A UL: 300 V / 20 A
Packaging	Box

Creation date May 1, 2020 9:06:40 PM CEST

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BLL 7.62HP/05/180 3.2SN OR BX**

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

Net weight 7.687 g

**System Parameters**

Product family		Type of connection	
OMNIMATE Power - series BL/SL 7.62HP		Board connection	
Pitch in mm (P)	7.62 mm	Pitch in inches (P)	0.3 inch
Number of poles	5	L1 in mm	30.48 mm
L1 in inches	1.2 inch	Number of rows	1
Pin series quantity	1	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
Plugging force/pole, max.	10 N	Pulling force/pole, max.	7 N

**Material data**

Insulating material	PA GF	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	GWFI	960 °C
Contact material	Copper alloy	Contact surface	tinned
Layer structure of solder connection	2-3 μm Ni / 2-4 μm Sn matt	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		

**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)	24 A
Rated current, max. number of poles (Tu=40°C)	21 A	Rated voltage for surge voltage class / pollution degree II/2	630 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	400 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	6 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.	7.2 mm	Creepage distance, min.	7.8 mm

**Rated data acc. to CSA**

Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	150 V
Rated voltage (Use group D / CSA)	300 V	Rated current (Use group B / CSA)	20 A
Rated current (Use group C / CSA)	20 A	Rated current (Use group D / CSA)	10 A

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**Technical data****Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059) 300 V

Rated voltage (Use group C / UL 1059) 150 V

Rated voltage (Use group D / UL 1059) 300 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) 10 A

Clearance distance, min. 7.2 mm

Creepage distance, min. 7.8 mm

Reference to approval values

Specifications are  
 maximum values, details -  
 see approval certificate.

**Packing**

Packaging	Box	VPE length	30 mm
VPE width	135 mm	VPE height	350 mm

**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02		

**Notes**

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](#)  
[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

[Download Whitepaper](#)

White paper UL 600 V

[Download Whitepaper](#)

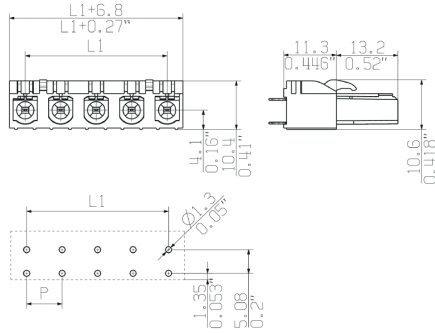
Creation date May 1, 2020 9:06:40 PM CEST

**OMNIMATE Power - series BL/SL 7.62HP  
BLL 7.62HP/05/180 3.2SN OR BX**

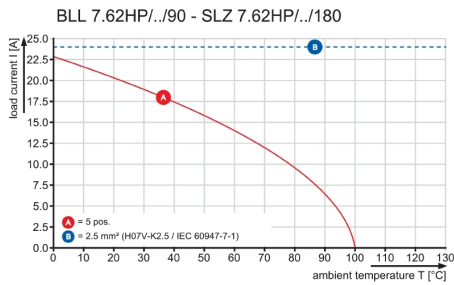
**Weidmüller Interface GmbH & Co. KG**  
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**Drawings**

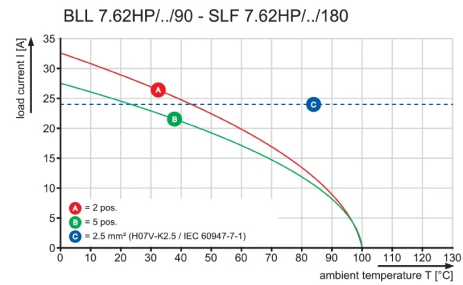
**Dimensional drawing**



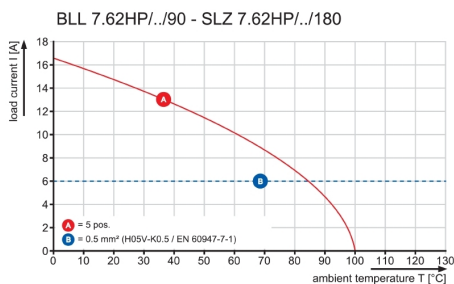
**Graph**



**Graph**



**Graph**



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**Mating connector (fully pluggable)**
**SLZ 7.62HP/180G**


180° inverted male header with clamping yoke connection for field wiring in 2.5 mm<sup>2</sup> with a 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL 1059 600 V class C and IEC 61800-5-1. Variants: available without flange, with external flange or with release latch.

**General ordering data**

Type	SLZ 7.62HP/05/180G SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1122700000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 20 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248904709	Clamping yoke connection, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 600 V / 17 A / AWG 20 - AWG 12	
Qty.	48 pc(s).			
Type	SLZ 7.62HP/05/180G SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1043380000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 20 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248774951	Clamping yoke connection, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 600 V / 17 A / AWG 20 - AWG 12	
Qty.	48 pc(s).			

**SLF 7.62HP/180G**


180° inverted male header with PUSH-IN connection technology for field wiring in 2.5 mm<sup>2</sup> with a 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL 1059 600 V class C and IEC 61800-5-1. Variants: available without flange, with external flange, with release latch.

**General ordering data**

Type	SLF 7.62HP/05/180G SN O ...	Version	Product data	Packaging
Order No.	<a href="#">1043580000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775156	PUSH IN, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	48 pc(s).			
Type	SLF 7.62HP/05/180G SN B ...	Version	Product data	Packaging
Order No.	<a href="#">1043620000</a>	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 5,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm <sup>2</sup>	Box
GTIN (EAN)	4032248775194	PUSH IN, Clamping range, max.: 2.5 mm <sup>2</sup> , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	48 pc(s).			

## Data sheet

### OMNIMATE Power - series BL/SL 7.62HP BLL 7.62HP/05/180 3.2SN OR BX

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## Accessories

### 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

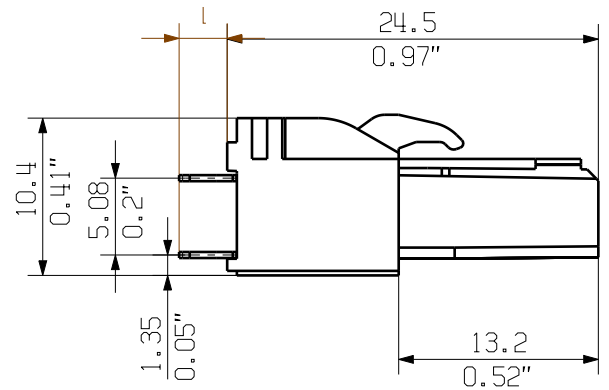
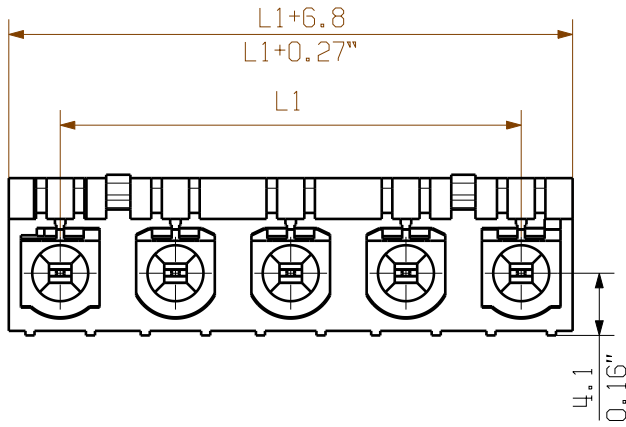
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

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.

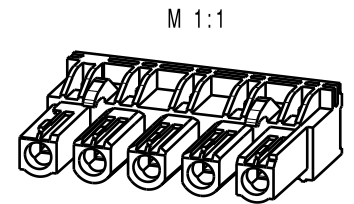
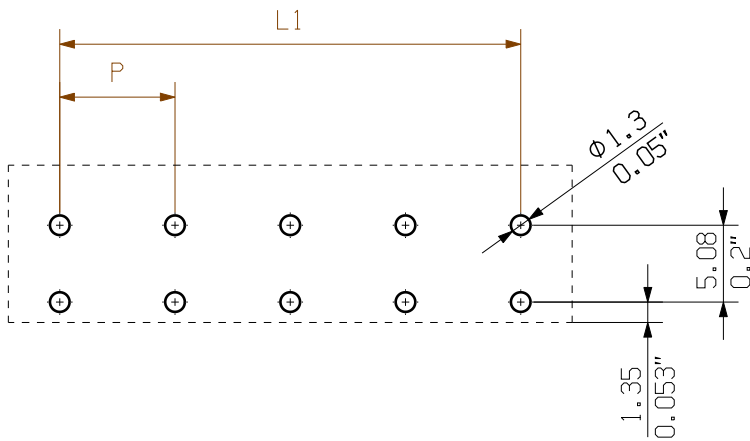
### General ordering data

Type	BLZ/SL KO 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).			
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).			

SHOWN: BLL7.62HP/05/180 3.2 SN



HOLE PATTERN



KUNDENZEICHNUNG  
CUSTOMER DRAWING

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.  
The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / 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 EN 61984 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.

3,2
4,5
pin length l

12	83,82	3,30
11	76,20	3,00
10	68,58	2,70
9	60,96	2,40
8	53,34	2,10
7	45,72	1,80
6	38,10	1,50
5	30,48	1,20
4	22,86	0,90
3	15,24	0,60
2	7,62	0,30
n	L1 (mm)	L1 (inch)

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	DIN ISO 2768-m 94360/4 11.05.17 HELIS_MA 00 Modification	Cat.no.:	
		3 50817 05 Drawing no. Issue no.	
	Date	Name	<b>BLL 7.62HP/.../180...</b> BUCHSENLEISTE SOCKET BLOCK
	Drawn	21.09.2009 HECKERT_M	
Responsible	08.06.2018 HELIS_MA		
Checked	LANG_T		
Scale: 2:1	Approved	Product file: BLL7.62HP	7373
Supersedes: .			

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
 Klängenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.