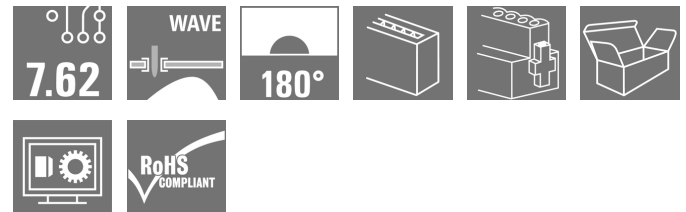


**OMNIMATE Power - series BL/SL 7.62HP
BLL 7.62HP/04/180F 3.2SN BK BX**

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

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/04/180F 3.2SN BK BX
Order No.	1122130000
Version	PCB plug-in connector, female header, Flange, THT solder connection, 7.62 mm, Number of poles: 4, 180°, Solder pin length (l): 3.2 mm, tinned, black, Box
GTIN (EAN)	4032248903184
Qty.	42 pc(s).
Product data	IEC: 630 V / 24 A UL: 300 V / 20 A
Packaging	Box

Creation date May 1, 2020 9:09:07 PM CEST

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Technical data
Dimensions and weights

Net weight 7.5 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	4	L1 in mm	22.86 mm
L1 in inches	0.9 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
Tightening torque for screw flange, min.	0.15 Nm	Tightening torque for screw flange, max.	0.25 Nm
Plugging force/pole, max.	10 N	Pulling force/pole, max.	7 N

Material data

Insulating material		Colour	
PA GF		black	
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 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		Rated current, min. number of poles (Tu=20°C)	
IEC 60664-1, IEC 61984		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)		Rated voltage (Use group C / CSA)	
300 V		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

Data sheet

**OMNIMATE Power - series BL/SL 7.62HP
BLL 7.62HP/04/180F 3.2SN BK BX**

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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

- Notes
- Additional colours on request
 - Gold-plated contact surfaces on request
 - Spacing between rows: see hole layout
 - Rated current related to rated cross-section & min. No. of poles.
 - 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.

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

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Technical data**Downloads**

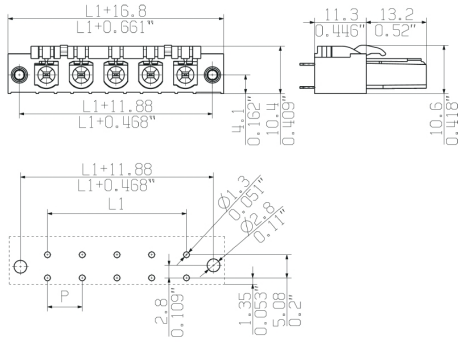
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
White paper power electronics connected correctly	Download Whitepaper
White paper UL 600 V	Download Whitepaper

**OMNIMATE Power - series BL/SL 7.62HP
BLL 7.62HP/04/180F 3.2SN BK BX**

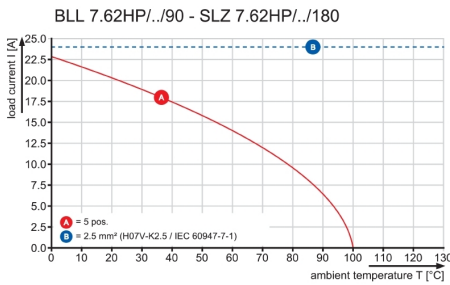
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Drawings

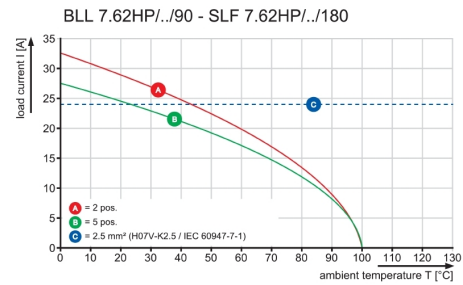
Dimensional drawing



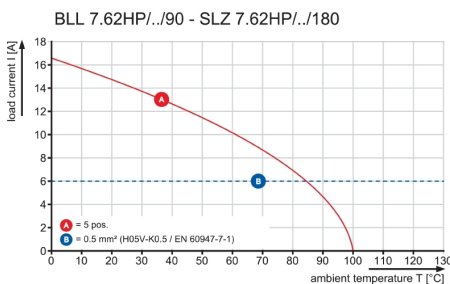
Graph



Graph



Graph



**OMNIMATE Power - series BL/SL 7.62HP
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Mating connector (fully pluggable)
SLF 7.62HP/180F


180° inverted male header with PUSH-IN connection technology for field wiring in 2.5 mm² with a 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL1059 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/04/180F SN B ...	Version	Product data	Packaging
Order No.	1043690000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775262	180°, PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			
Type	SLF 7.62HP/04/180F SN O ...	Version	Product data	Packaging
Order No.	1043650000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775224	180°, PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			

SLF 7.62HP/180LR


180° inverted male header with PUSH-IN connection technology for field wiring in 2.5 mm² with a 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL1059 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/04/180LR SN ...	Version	Product data	Packaging
Order No.	1043730000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775309	PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			
Type	SLF 7.62HP/04/180LR SN ...	Version	Product data	Packaging
Order No.	1043770000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 24 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775347	PUSH IN, Clamping range, max.: 2.5 mm ² , Box	UL: 600 V / 20 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			

**OMNIMATE Power - series BL/SL 7.62HP
BLL 7.62HP/04/180F 3.2SN BK BX**

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Mating connector (fully pluggable)
SLZ 7.62HP/180F


180° inverted male header with clamping yoke connection for field wiring in 2.5 mm² with a 7.62 pitch. Also ideal as a touch-safe solution for inverse voltages. Meets the requirements of UL1059 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/04/180F SN B ...	Version	Product data	Packaging
Order No.	1043450000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 20 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248775026	Clamping yoke connection, Clamping range, max. : 2.5 mm ² , Box	UL: 600 V / 17 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			
Type	SLZ 7.62HP/04/180F SN O ...	Version	Product data	Packaging
Order No.	1043410000	PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4,	IEC: 1000 V / 20 A / 0.5 - 2.5 mm ²	Box
GTIN (EAN)	4032248774982	Clamping yoke connection, Clamping range, max. : 2.5 mm ² , Box	UL: 600 V / 17 A / AWG 20 - AWG 12	
Qty.	42 pc(s).			

OMNIMATE Power - series BL/SL 7.62HP BLL 7.62HP/04/180F 3.2SN BK 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

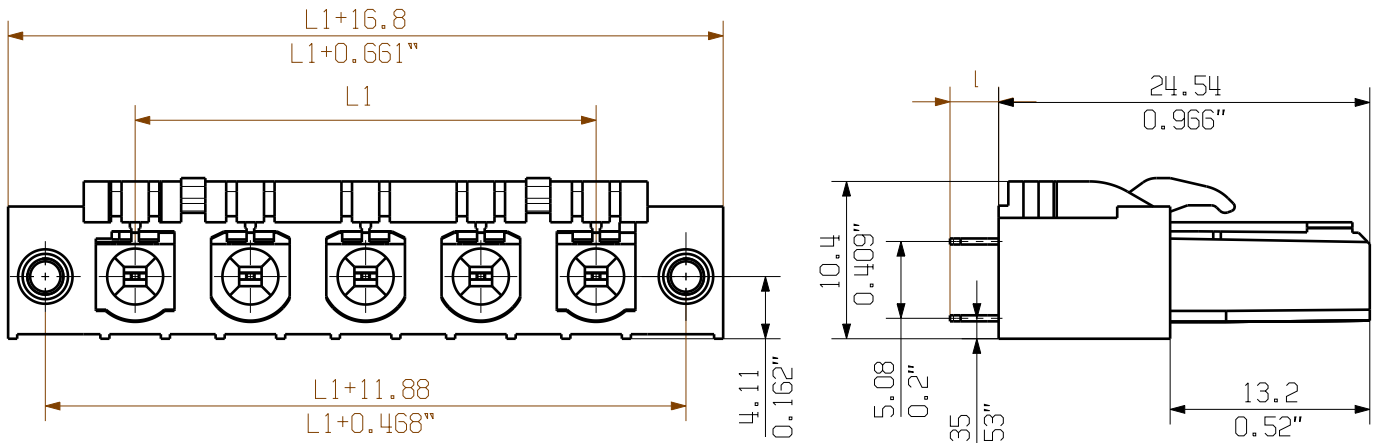
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

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.

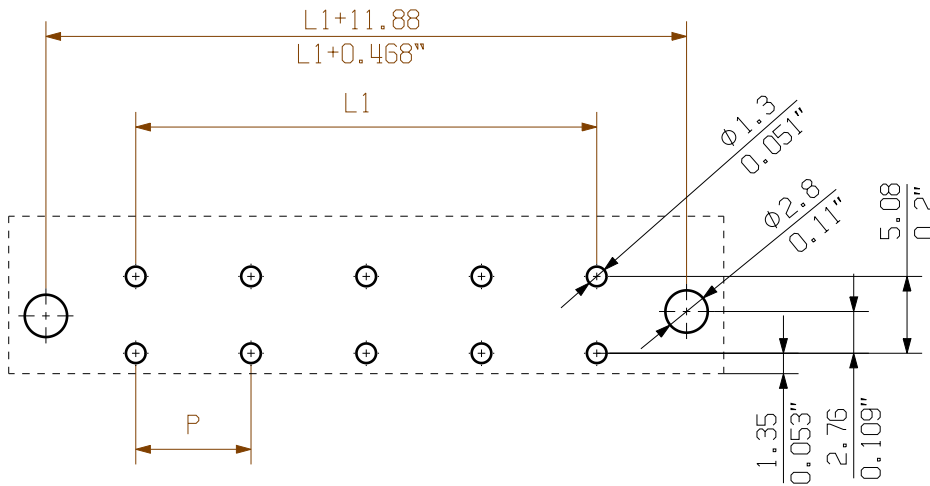
General ordering data

Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	1545710000	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.	1573010000	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			

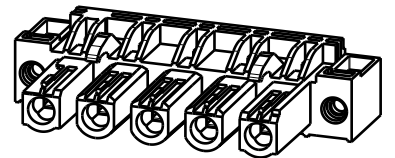
SHOWN: BLL7.62HP/05/180F 3.2 SN



HOLE PATTERN



M 1:1



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		Cat.no.: .	3 50817 05
	Modification	Date		Name	
	Drawn	21.09.2009	HECKERT_M	Sheet 02 of 03 sheets	BLL 7.62HP/.../180... BUCHSENLEISTE SOCKET BLOCK
Scale: 2:1	Responsible		KRUG_M		
Supersedes: .	Checked	08.06.2018	HELIS_MA		
	Approved		LANG_T	Product file: BLL7.62HP	7373

Recommended wave soldering profiles

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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.