

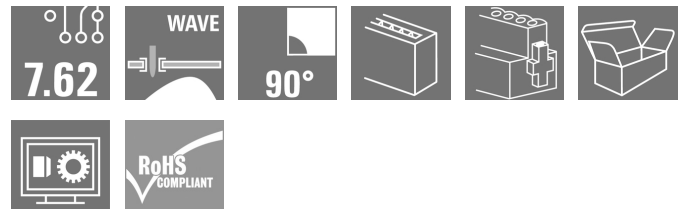
**BLL 7.62HP/04/90F 3.2SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

90° 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, flange version, soldered flange version.

**General ordering data**

Version	PCB plug-in connector, female header, Flange, THT solder connection, 7.62 mm, Number of poles: 4, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
Order No.	<a href="#">1043290000</a>
Type	BLL 7.62HP/04/90F 3.2SN BK BX
GTIN (EAN)	4032248774869
Qty.	42 pc(s).
Product data	IEC: 630 V / 24 A UL: 300 V / 20 A
Packaging	Box

Creation date May 28, 2024 4:14:00 PM CEST

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

Depth	24.5 mm	Depth (inches)	0.965 inch
Height	12.8 mm	Height (inches)	0.504 inch
Width	39.66 mm	Width (inches)	1.561 inch
Net weight	7.5 g		

**System Parameters**

Product family	OMNIMATE Power - series BL/SL 7.62HP	Type of connection	Board connection
Pitch in mm (P)	7.62 mm	Pitch in inches (P)	0.3 "
Number of poles	4	L1 in mm	22.86 mm
L1 in inches	0.9 "	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	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Comparative Tracking Index (CTI)	≥ 200	UL 94 flammability rating	V-0
Contact material	Cu-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.	-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

**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

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

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA)	300 V
Rated voltage (Use group D / CSA)	300 V
Rated current (Use group C / CSA)	20 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.

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

**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 D / UL 1059)	300 V
Rated current (Use group C / UL 1059)	20 A
Clearance distance, min.	7.2 mm
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)	150 V
Rated current (Use group B / UL 1059)	20 A
Rated current (Use group D / UL 1059)	10 A
Creepage distance, min.	7.8 mm

**Packing**

Packaging	Box	VPE length	349 mm
VPE width	137 mm	VPE height	31 mm

**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ECLASS 9.0	27-44-04-02	ECLASS 9.1	27-44-04-02
ECLASS 10.0	27-44-04-02	ECLASS 11.0	27-46-02-01
ECLASS 12.0	27-46-02-01	ECLASS 13.0	27-46-02-01

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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>• Spacing between rows: see hole layout</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</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>• In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



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

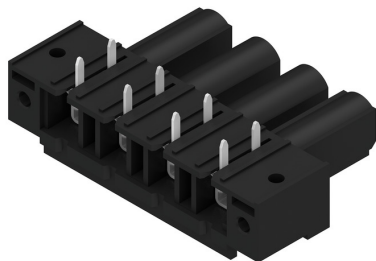
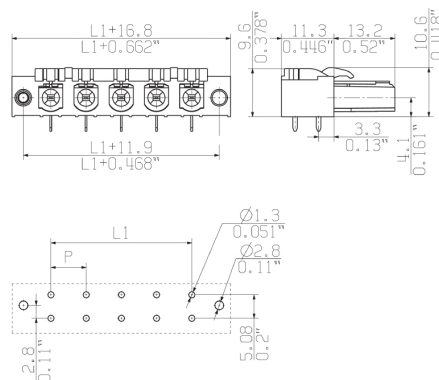
**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
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>

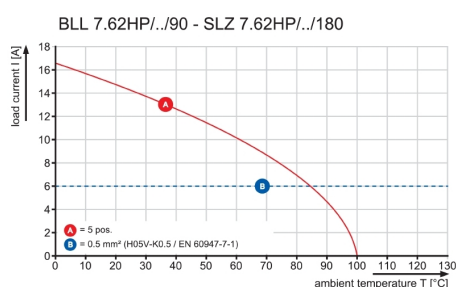
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**Drawings**
**Product image**

**Dimensional drawing**

**Graph**

**Graph**

**Graph**


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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.

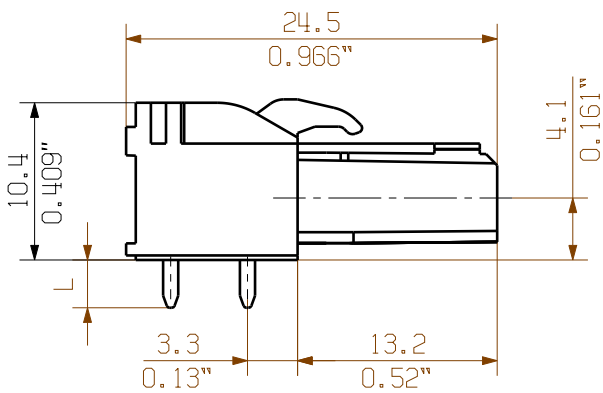
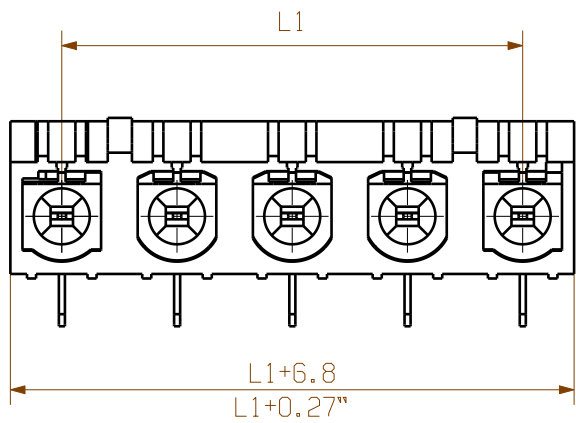
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

## General ordering data

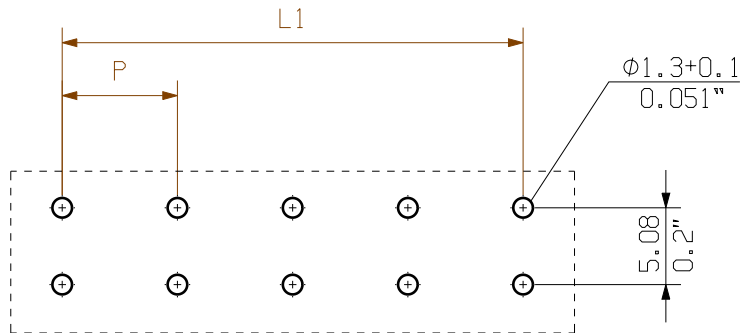
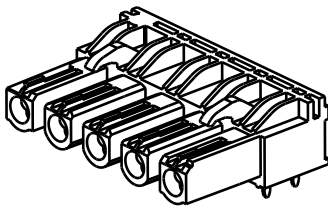
Type	BLZ/SL KO OR BX	Version	Product data	Packaging
Order No.	<a href="#">1573010000</a>	PCB plug-in connector, Accessories, Coding element, orange, Number		Box
GTIN (EAN)	4008190048396	of poles: 1		
Qty.	100 pc(s).			
Type	BLZ/SL KO BK BX	Version	Product data	Packaging
Order No.	<a href="#">1545710000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

MASS E OHNE TOLERANZ SIND KEINE PRUEFMASSE  
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

BLL7.62HP/.../90

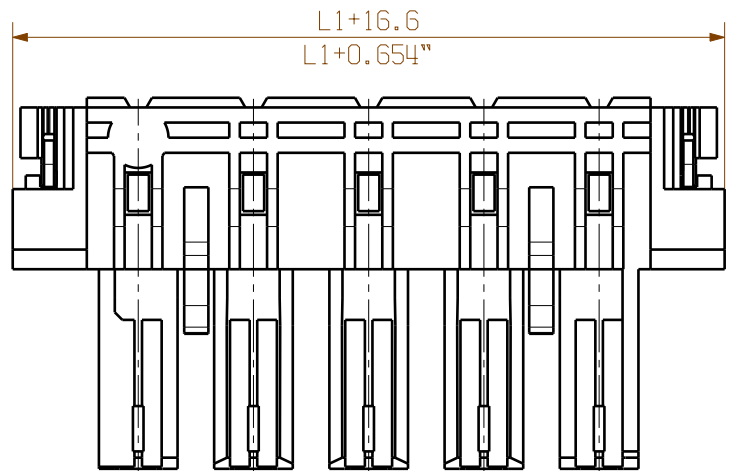
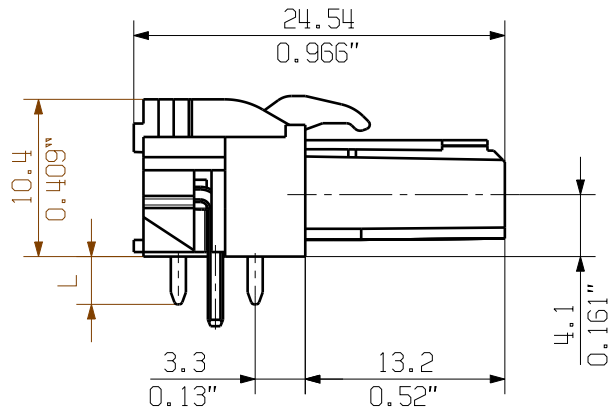
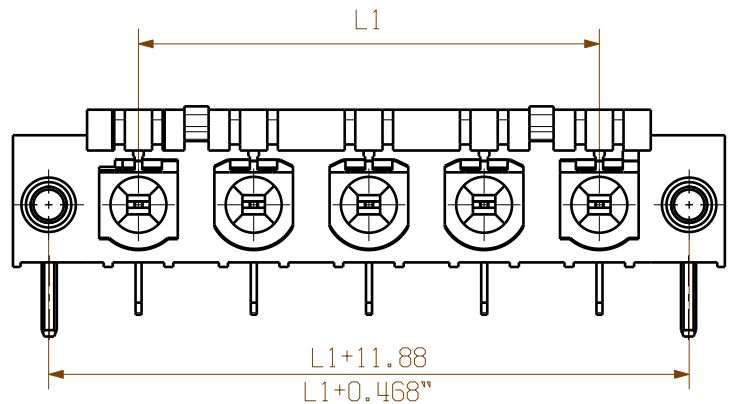


M 1/1

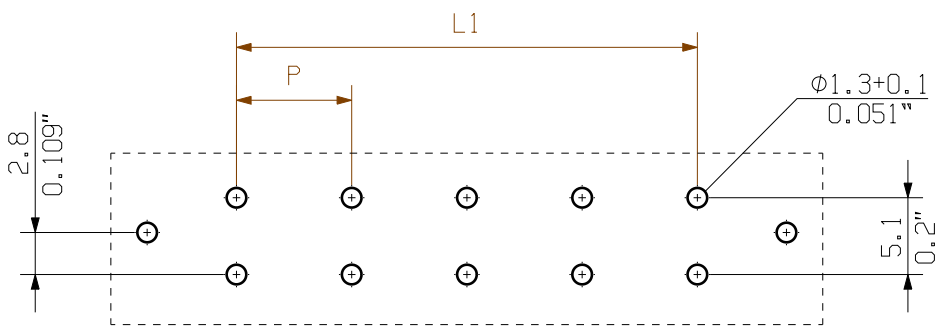
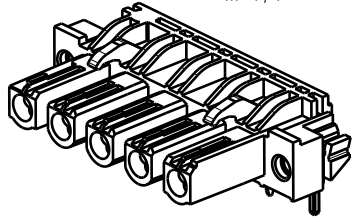


Layout finished holes

BLL7.62HP/.../90LF



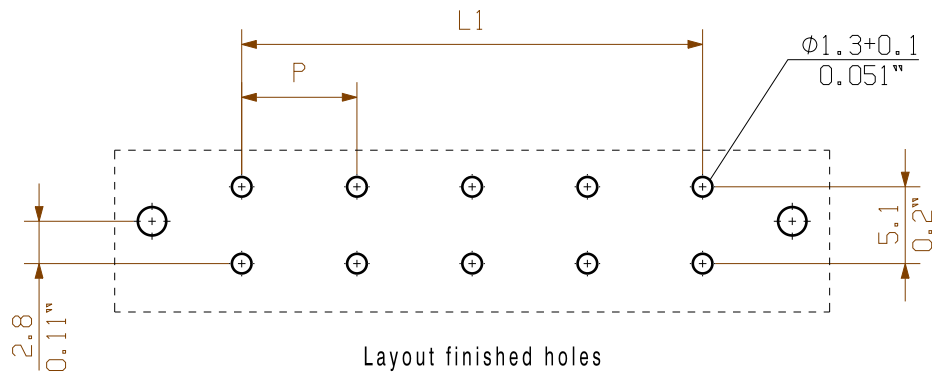
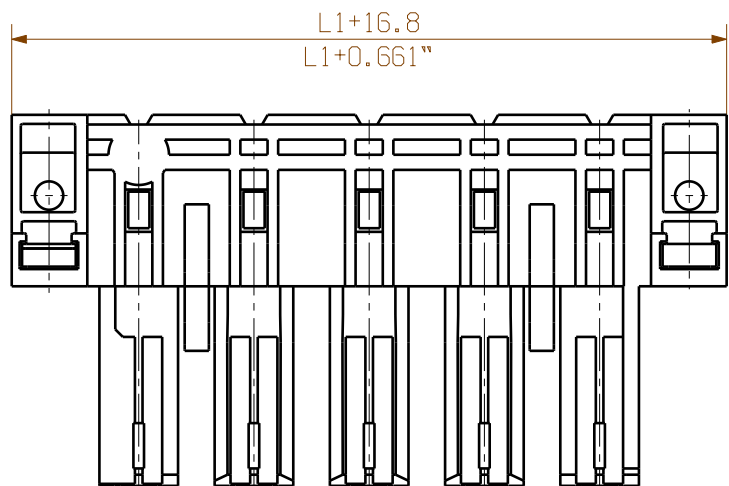
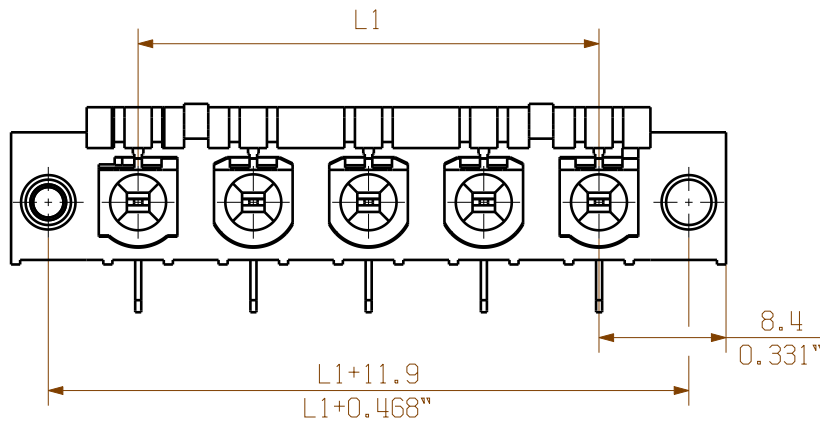
M 1/1



Layout finished holes

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING

BLL7.62HP/.../90F



Layout finished holes

M 1/1



For the mounting of PCBs, it should be noted that the rated data stated here 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.

n = POLZAHL / NO OF POLES  
P = RASTER/ PITCH

	DIN ISO 2768-m		CAT.NO.: . . .	
	72010/5 12.09.13 HELIS_MA	00	<b>Weidmüller</b>	
	MODIFICATION		DATE	NAME
	DRAWN	17.09.2007	POCTA_C	
	RESPONSIBLE		STUCKMANN_P	
CHECKED	12.09.2013	HECKERT_M		
APPROVED		HANKE_D		
SCALE: 2/1		PRODUCT FILE: BLL7.62HP		
SUPERSEDES: .		7373		

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)

DRAWING NO.	ISSUE NO.
SHEET 02	OF 02 SHEETS

C 45003 04
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**BLL7.62HP/.../90...**  
BUCHSENLEISTE  
SOCKET BLOCK

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
[www.weidmueller.com](http://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.

We reserve the right to make technical changes.