

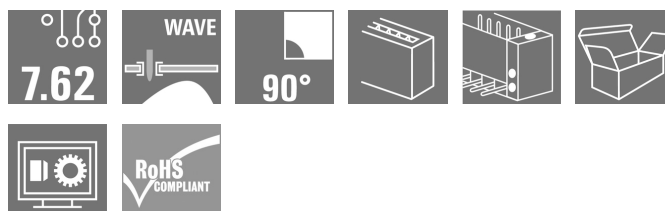
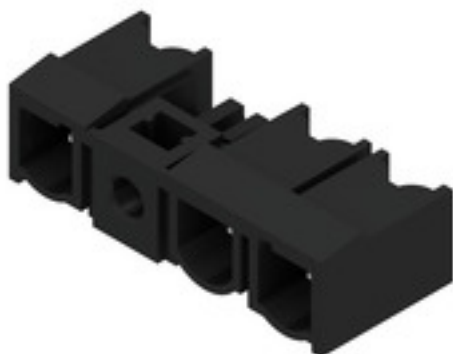
**SL 7.62IT/03/90MF2 3.2SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

90° male header with soldered flange fastening with 7.62 pitch for 400 V IT power networks according to IEC 61800-5-1. UL approval as per UL840 600 V with leading PE contact.

Meets the increased requirements on touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth, when combined with female header BLZ 7.62 IT...

Without a female header, the mating profile guarantees minimum touch safety of 1 mm with 20 N pressure on the test finger. The interlock in the middle flange reduces the space requirements in comparison with conventional solutions by one pitch width. On request: available with screw flange or without flange.

**General ordering data**

Version	PCB plug-in connector, male header, closed side, Middle flange, THT solder connection, 7.62 mm, Number of poles: 3, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box
Order No.	<a href="#">1173640000</a>
Type	SL 7.62IT/03/90MF2 3.2SN BK BX
GTIN (EAN)	4032248966516
Qty.	60 pc(s).
Product data	IEC: 630 V / 29 A UL: 300 V / 20 A
Packaging	Box

Creation date May 22, 2024 3:35:01 AM CEST

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## Technical data

## Dimensions and weights

Depth	12.65 mm	Depth (inches)	0.498 inch
Height	11.6 mm	Height (inches)	0.457 inch
Height of lowest version	8.4 mm	Width	29.86 mm
Width (inches)	1.176 inch	Net weight	2.484 g

## System specifications

Product family	OMNIMATE Power - series BL/SL 7.62IT	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 "	Outgoing elbow	90°
Number of poles	3	Number of solder pins per pole	1
Solder pin length (l)	3.2 mm	Solder pin dimensions	1.0 x 1.0 mm
Solder pin dimensions = d tolerance	+0,01 / -0,03 mm	Solder eyelet hole diameter (D)	1.4 mm
Solder eyelet hole diameter tolerance (D)+ 0,1 mm		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, plugged
Touch-safe protection acc. to DIN VDE 0470	IP20 plugged	Protection degree	IP20 in installed state
Can be coded	Yes	Plugging cycles	25

## Material data

Insulating material	PBT 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	1...3 µm Ni / 2...4 µm Sn matt
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)	29 A
Rated current, max. number of poles (Tu=20°C)	26 A	Rated current, min. number of poles (Tu=40°C)	25 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	500 V	Rated voltage for surge voltage class / pollution degree III/3	400 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	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.	6.5 mm	Creepage distance, min.	8.1 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)	600 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)	300 V
Rated current (Use group B / CSA)	20 A
Rated current (Use group D / CSA)	5 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)	600 V
Rated current (Use group C / UL 1059)	20 A
Clearance distance, min.	6.5 mm
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Rated voltage (Use group C / UL 1059)	300 V
Rated current (Use group B / UL 1059)	20 A
Rated current (Use group D / UL 1059)	5 A
Creepage distance, min.	11.2 mm

**Packing**

Packaging	Box	VPE length	344 mm
VPE width	134 mm	VPE height	23 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>• 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>• MFX and MSFX: X= Position of the middle flange e.g. MF2, MSF3</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>
Product Change Notification	<a href="#">DE - Change of packaging</a> <a href="#">EN - Change of packaging</a> <a href="#">DE - Change of packaging Step 2</a> <a href="#">EN - Change of packaging Step 2</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>

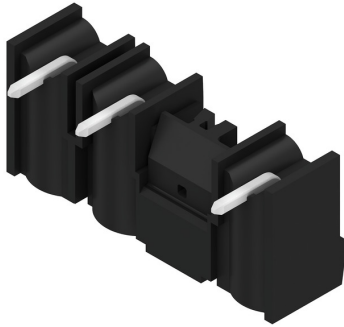
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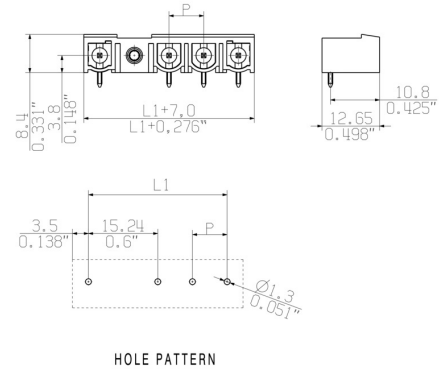
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# Drawings

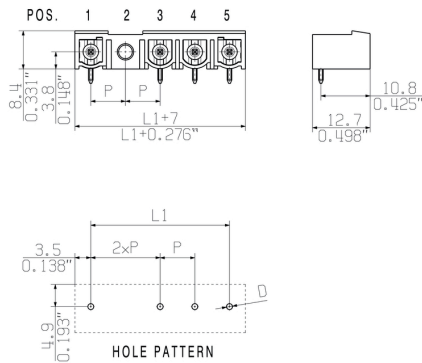
## Product image



## Dimensional drawing



## Dimensional drawing



Similar to illustration

## SL 7.62IT/03/90MF2 3.2SN BK BX

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Germany

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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).			

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.  
ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN.  
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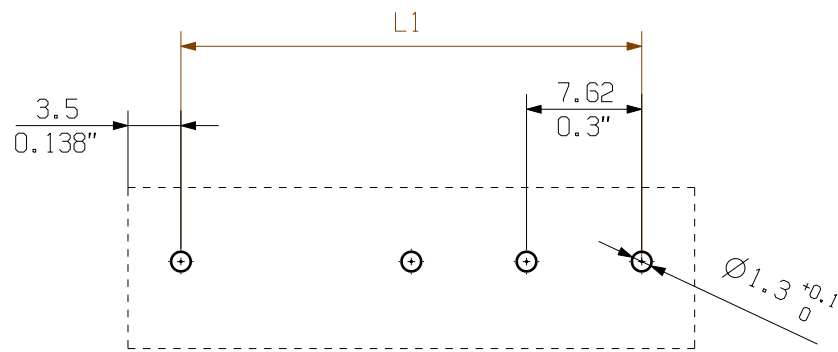
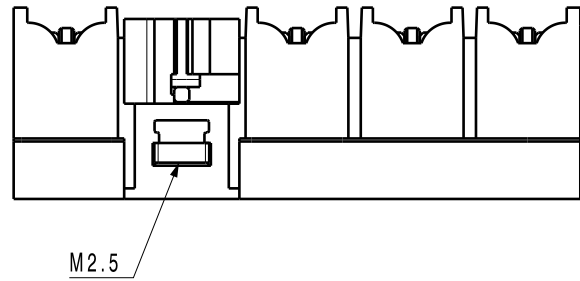
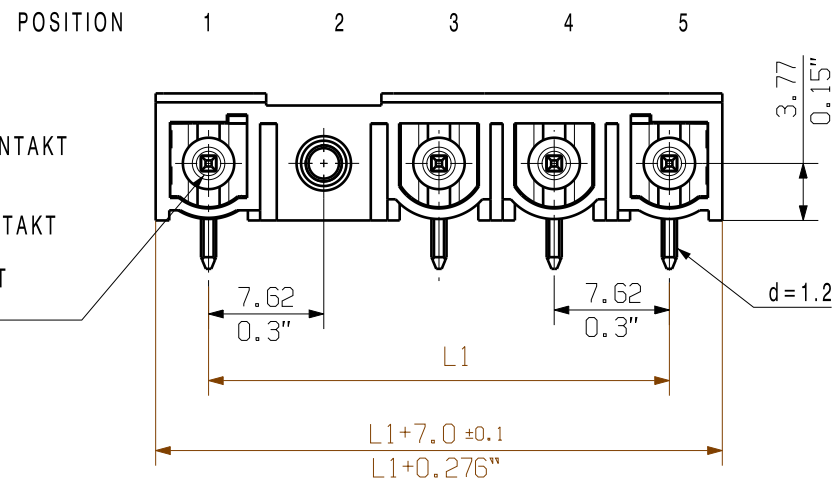
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MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE  
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING

STANDARDVERSION MIT VOREILENDER KONTAKT  
STANDARD WITH LEADING CONTACT

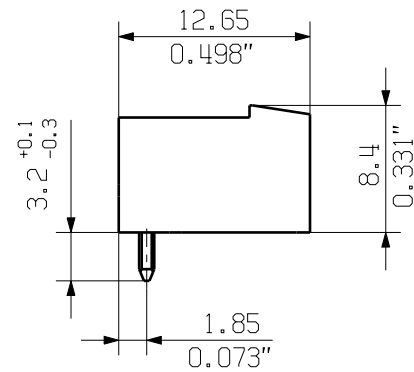
SONDERVERSION OHNE VOREILENDER KONTAKT  
KENNZEICHNNG "SO"  
SPECIAL TYPE WITHOUT LEADING CONTACT  
IDENTIFICATION "SO"



HOLE PATTERN

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.



M 1/1

SL 7.62IT/03/90MF2

STANDARD : LEADING PIN

SL 7.62IT/04/90MF4

STANDARD: LEADING PIN

P=POL/POLES  
MF= MITTELFANSCH/MIDDLE FLANGE  
PE=VOREILENDER KONTAKT/ LEADING PIN

3 MF 2	PE	MF	P	P			
3 MF 3	P	P	MF	PE			
4 MF 2	PE	MF	P	P	P		
4 MF 4	P	P	P	MF	PE		
5 MF 3	P	P	P	MF	P	P	
5 MF 4	P	P	MF	P	P	P	
6 MF 3	P	P	MF	P	P	P	P
6 MF 4	P	P	P	MF	P	P	P
6 MF 5	P	P	P	P	MF	P	P
6 MF 6	P	P	P	P	P	MF	P
POLE	1	2	3	4	5	6	7
NO OF POLES	POSITION						

6	45,72	1,80
5	38,10	1,50
4	30,48	1,20
3	22,86	0,90
2	15,24	0,60
n	L1 (mm)	L1 (inch)

SHOWN: SL 7.62IT/04/90MF2

GENERAL TOLERANCE: DIN ISO 2768-m		86757/5 10.03.16 HELIS_MA 00		CAT.NO.: .	
		MODIFICATION			
		DATE	NAME	SL 7.62IT/././90MLF.. 3.2 STIFTELEISTE MALE HEADER	
DRAWN		18.02.2009	HERTEL_S		
RESPONSIBLE			KRUG_M		
SCALE: 2/1		CHECKED	04.04.2016	HELIS_MA	PRODUCT FILE: BLZ/SL7.62HP
SUPERSEDES: .		APPROVED		LANG_T	
				7375	

## 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  $260 \text{ °C}$ . In practice, the maximum soldering temperature is quite often well below the above maximum profile.

We reserve the right to make technical changes.