

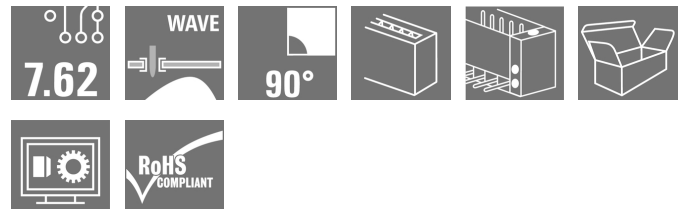
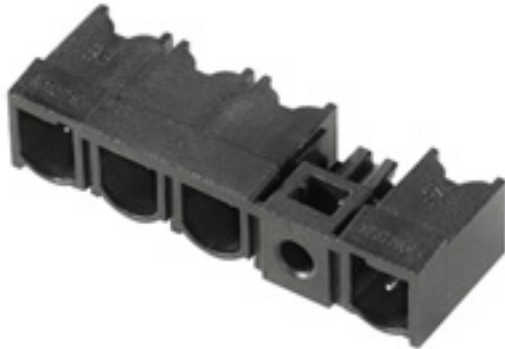
**SL 7.62IT/04/90MF4 3.2SN BK BX****Weidmüller Interface GmbH & Co. KG**

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: 4, 90°, Solder pin length (l): 3.2 mm, tinned, black, Box |
| Order No.    | <a href="#">1173770000</a>                                                                                                                                                 |
| Type         | SL 7.62IT/04/90MF4 3.2SN BK BX                                                                                                                                             |
| GTIN (EAN)   | 4032248966615                                                                                                                                                              |
| Qty.         | 48 pc(s).                                                                                                                                                                  |
| Product data | IEC: 630 V / 29 A<br>UL: 300 V / 20 A                                                                                                                                      |
| Packaging    | Box                                                                                                                                                                        |

Creation date September 16, 2022 1:31:33 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           | 37.48 mm   |
| Width (inches)           | 1.476 inch | Net weight      | 3.1 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 inch                             | Outgoing elbow                               | 90°                             |
| Number of poles                                   | 4                                    | 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)              | 1.3 mm                          |
| Solder eyelet hole diameter tolerance (D)+ 0,1 mm |                                      | 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, 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                      | Copper 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 C / CSA) 300 V

Rated voltage (Use group D / CSA) 600 V

Rated current (Use group B / CSA) 20 A

Rated current (Use group C / CSA) 20 A

Rated current (Use group D / CSA) 5 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

**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) 300 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

Clearance distance, min. 6.5 mm

Creepage distance, min. 11.2 mm

Reference to approval values

Specifications are maximum values, details - see approval certificate.

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 339 mm |
| VPE width | 134 mm | VPE height | 21 mm  |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0    | EC002637    |
| ETIM 8.0    | 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 |

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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>• Long term storage of the product with average temperature of 50 °C and average 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>                                                                                                                                                                                                                                                                                                                                                                              |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                                                                 |
| Product Change Notification                 | <a href="#">DE - Change of packaging</a><br><a href="#">EN - Change of packaging</a><br><a href="#">DE - Change of packaging Step 2</a><br><a href="#">EN - Change of packaging Step 2</a>                                                                                                                                                                                                                   |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                                                     |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL BASE STATION EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a><br><a href="#">PO OMNIMATE EN</a> |

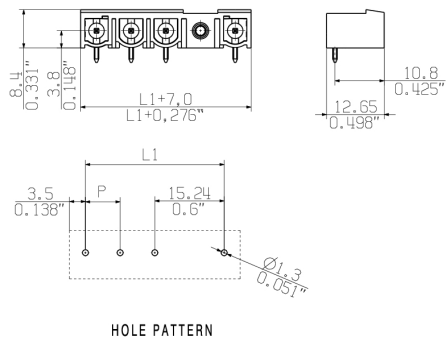
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## Drawings

## Dimensional drawing



## Connection diagram

|                |                                  |                |   |   |   |   |                                                                                     |   |
|----------------|----------------------------------|----------------|---|---|---|---|-------------------------------------------------------------------------------------|---|
| 6              | M(S)F6                           | o              | o | o | o | o | X                                                                                   | o |
| 6              | M(S)F5                           | o              | o | o | o | X | o                                                                                   | o |
| 6              | M(S)F4                           | o              | o | o | X | o | o                                                                                   | o |
| 6              | M(S)F3                           | o              | o | X | o | o | o                                                                                   | o |
| 6              | M(S)F2                           | o              | X | o | o | o | o                                                                                   | o |
| 5              | M(S)F5                           | o              | o | o | o | X | o                                                                                   |   |
| 5              | M(S)F4                           | o              | o | o | X | o | o                                                                                   |   |
| 5              | M(S)F3                           | o              | o | X | o | o | o                                                                                   |   |
| 5              | M(S)F2                           | o              | X | o | o | o | o                                                                                   |   |
| 4              | M(S)F4                           | o              | o | o | X | o |                                                                                     |   |
| 4              | M(S)F3                           | o              | o | X | o | o |                                                                                     |   |
| 4              | M(S)F2                           | o              | X | o | o | o |                                                                                     |   |
| 3              | M(S)F3                           | o              | o | X | o |   |                                                                                     |   |
| 3              | M(S)F2                           | o              | X | o | o |   |                                                                                     |   |
| 2              | M(S)F2                           | o              | X | o |   |   |                                                                                     |   |
| NO OF<br>POLES | X = MIDDLE<br>FLANGE<br>POSITION | 1              | 2 | 3 | 4 | 5 | 6                                                                                   | 7 |
|                |                                  | POS. 1 2 3 4 5 |   |   |   |   |  |   |

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET.  
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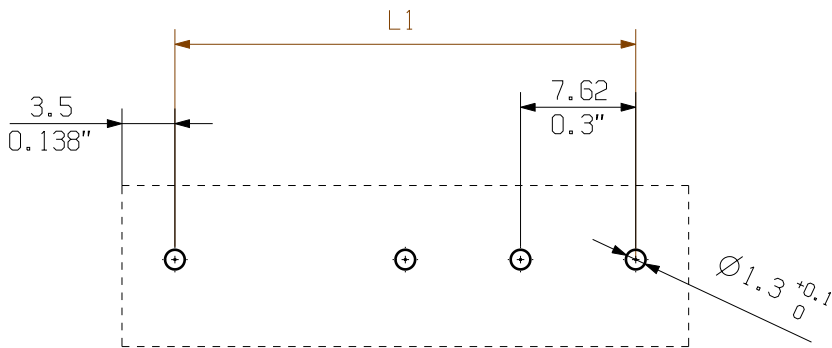
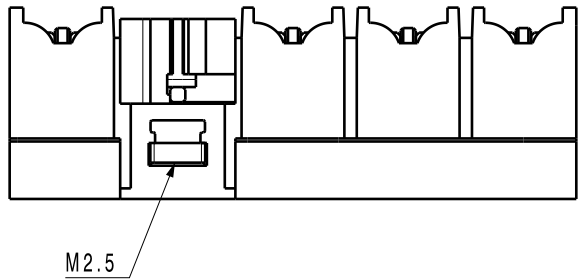
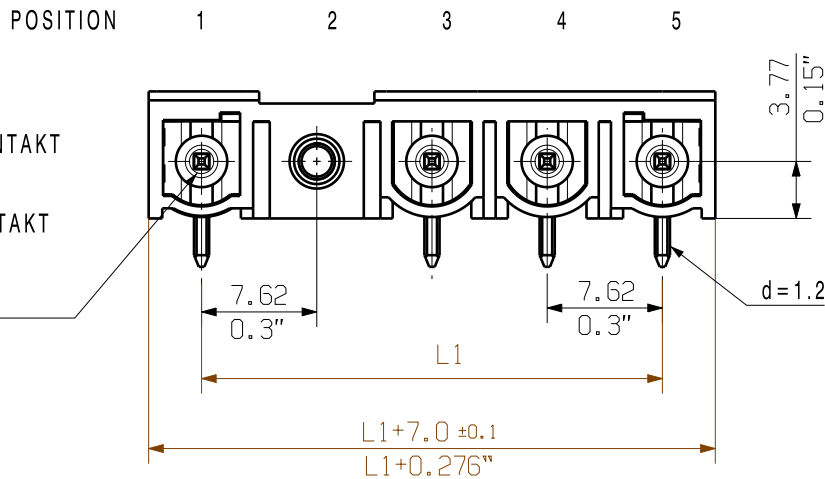
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MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE  
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING

STANDARDVERSION MIT VOREILENDER KONTAKT  
STANDARD WITH LEADING CONTACT

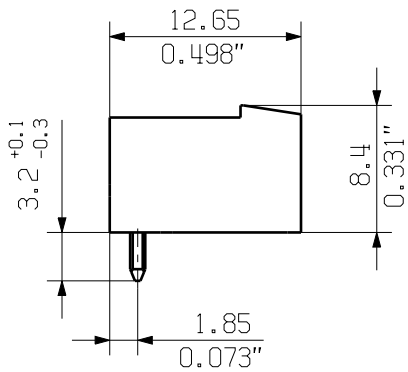
SONDERVERSION OHNE VOREILENDER KONTAKT  
KENNZEICHNNG "SO"  
SPECIAL TYPE WITHOUT LEADING CONTACT  
IDENTIFICATION "SO"



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.



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

|             | PE       | MF | P  | P  |    |    |   |
|-------------|----------|----|----|----|----|----|---|
| 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 |    |    |    |    |    |   |

SHOWN: SL 7.62IT/04/90MF2

SL 7.62IT/03/90MF2

STANDARD : LEADING PIN

SL 7.62IT/04/90MF4

STANDARD: LEADING PIN

|   |         |           |
|---|---------|-----------|
| 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) |

GENERAL TOLERANCE:  
DIN ISO 2768-m



86757/5  
10.03.16 HELIS\_MA 00  
MODIFICATION

**Weidmüller**

CAT.NO.:.

**C 49983** 10

DRAWING NO. SHEET 02 OF 04 SHEETS  
ISSUE NO.



DATE NAME  
DRAWN 18.02.2009 HERTEL\_S  
RESPONSIBLE KRUG\_M  
CHECKED 04.04.2016 HELIS\_MA  
APPROVED LANG\_T

SCALE: 2/1

SUPERSEDES:.

**SL 7.62IT/././90MLF.. 3.2**

STIFTELEISTE  
MALE HEADER

PRODUCT FILE: BLZ/SL7.62HP

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°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.

We reserve the right to make technical changes.