

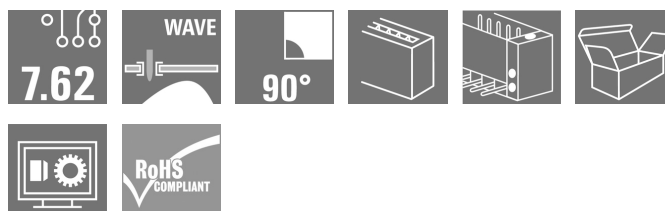
**SL 7.62IT/04/90MF4 3.2SN BK BX****Weidmüller Interface GmbH & Co. KG**

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 May 21, 2024 11:54:09 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 "                                | 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)              | 1.4 mm                          |
| Solder eyelet hole diameter tolerance (D)+ 0,1 mm |                                      | L1 in mm                                     | 30.48 mm                        |
| L1 in inches                                      | 1.2 "                                | 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 | 339 mm |
| VPE width | 134 mm | VPE height | 21 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     |

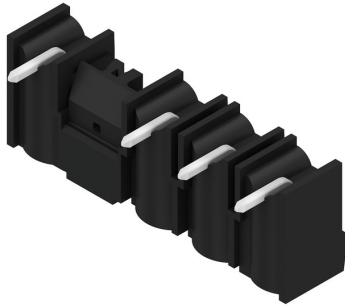
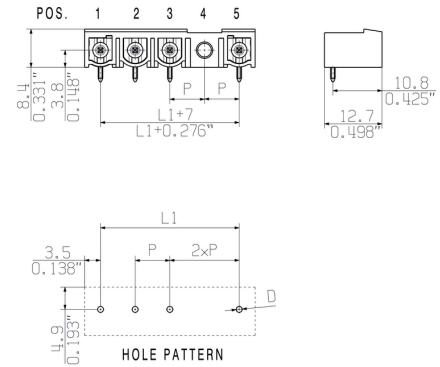
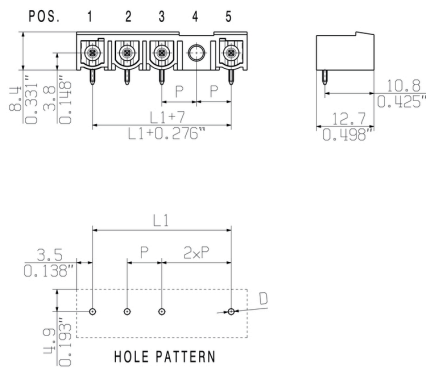
## Downloads

|   |  |
|---|--|
| 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><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****Product image****Dimensional drawing****Dimensional drawing**

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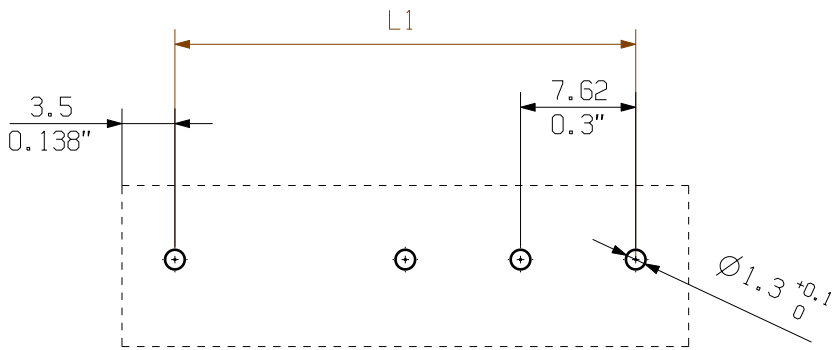
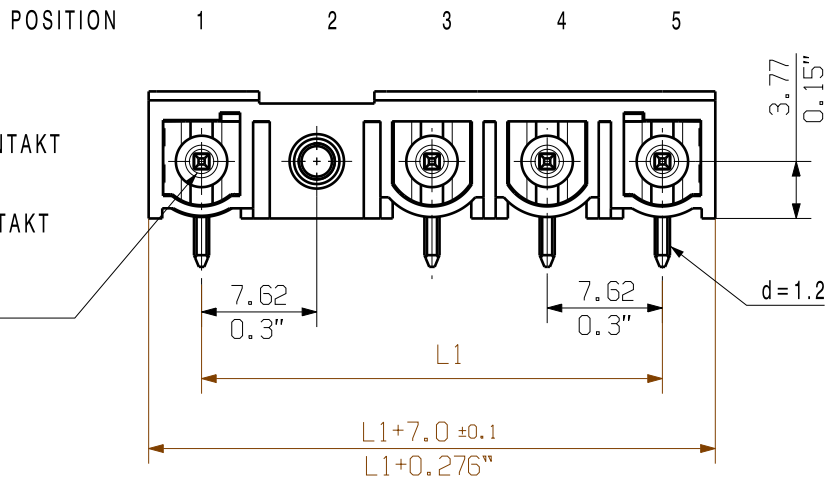
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MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE  
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING

STANDARDVERSION MIT VOREILENDER KONTAKT  
STANDARD WITH LEADING CONTACT

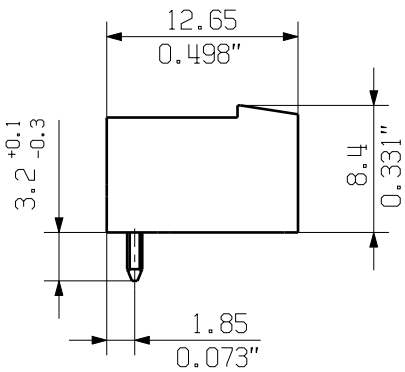
SONDERVERSION OHNE VOREILENDER KONTAKT  
KENNZEICHNNG "SO"  
SPECIAL TYPE WITHOUT LEADING CONTACT  
IDENTIFICATION "SO"



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

|             | 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 |    |    |    |    |    |   |

|   |         |           |
|---|---------|-----------|
| 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  
MODIFICATION



| DATE               | NAME     |
|--------------------|----------|
| DRAWN 18.02.2009   | HERTEL_S |
| RESPONSIBLE        | KRUG_M   |
| CHECKED 04.04.2016 | HELIS_MA |
| APPROVED           | LANG_T   |

SCALE: 2/1  
SUPERSEDES: .

**Weidmüller**

**SL 7.62IT/././90MLF.. 3.2**  
STIFTELEISTE  
MALE HEADER

PRODUCT FILE: BLZ/SL7.62HP

7375

CAT.NO.: .

**C 49983 10**  
DRAWING NO. SHEET 02 OF 04 SHEETS  
ISSUE NO.

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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Fon: +49 5231 14-0  
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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.