

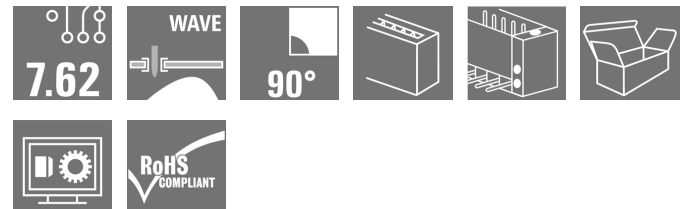
**SV 7.62HP/06/90MSF4 3.5SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Similar to illustration

Single-row, high-current and high-performance male headers for side-by-side mounting without sacrificing any poles or with flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity and additional fastening in the flange.

**General ordering data**

|              |                                                                                                                                                                                  |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, male header, closed side, Middle screw flange, THT solder connection, 7.62 mm, Number of poles: 6, 90°, Solder pin length (l): 3.5 mm, tinned, black, Box |
| Order No.    | <a href="#">1048770000</a>                                                                                                                                                       |
| Type         | SV 7.62HP/06/90MSF4 3.5SN BK BX                                                                                                                                                  |
| GTIN (EAN)   | 4032248786268                                                                                                                                                                    |
| Qty.         | 30 pc(s).                                                                                                                                                                        |
| Product data | IEC: 1000 V / 57 A<br>UL: 300 V / 40.5 A                                                                                                                                         |
| Packaging    | Box                                                                                                                                                                              |

Creation date September 15, 2022 10:52:13 PM CEST

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## Technical data

## Dimensions and weights

|                          |          |                 |            |
|--------------------------|----------|-----------------|------------|
| Depth                    | 28.3 mm  | Depth (inches)  | 1.114 inch |
| Height                   | 14.9 mm  | Height (inches) | 0.587 inch |
| Height of lowest version | 11.4 mm  | Width           | 53.34 mm   |
| Width (inches)           | 2.1 inch | Net weight      | 4.5 g      |

## System specifications

|                                                   |                                      |                                              |                                            |
|---------------------------------------------------|--------------------------------------|----------------------------------------------|--------------------------------------------|
| Product family                                    | OMNIMATE Power - series BV/SV 7.62HP | 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                                   | 6                                    | Number of solder pins per pole               | 2                                          |
| Solder pin length (l)                             | 3.5 mm                               | Solder pin length tolerance                  | +0.1 / -0.3 mm                             |
| Solder pin dimensions                             | 0.8 x 1.0 mm                         | Solder eyelet hole diameter (D)              | 1.3 mm                                     |
| Solder eyelet hole diameter tolerance (D)+ 0,1 mm |                                      | L1 in mm                                     | 45.72 mm                                   |
| L1 in inches                                      | 1.8 inch                             | Number of rows                               | 1                                          |
| Pin series quantity                               | 1                                    | Touch-safe protection acc. to DIN VDE 57 106 | Touch-safe above the printed circuit board |
| Touch-safe protection acc. to DIN VDE 0470        | IP 20                                | Protection degree                            | IP20, when fully mounted                   |
| Volume resistance                                 | 2.00 mΩ                              | Can be coded                                 | Yes                                        |
| Tightening torque for screw flange, min.          | 0.2 Nm                               | Tightening torque for screw flange, max.     | 0.3 Nm                                     |
| Plugging cycles                                   | 25                                   |                                              |                                            |

## Material data

|                                       |                                |                                       |        |
|---------------------------------------|--------------------------------|---------------------------------------|--------|
| Insulating material                   | PA GF                          | Colour                                | black  |
| Colour chart (similar)                | RAL 9011                       | Insulating material group             | II     |
| Comparative Tracking Index (CTI)      | ≥ 500                          | UL 94 flammability rating             | V-0    |
| Contact material                      | Copper alloy                   | Contact surface                       | tinned |
| Layer structure of solder connection  | 1...3 µm Ni / 4...6 µm Sn matt | Storage temperature, min.             | -40 °C |
| Storage temperature, max.             | 70 °C                          | Operating temperature, min.           | -50 °C |
| Operating temperature, max.           | 130 °C                         | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 130 °C                         |                                       |        |

## Rated data acc. to IEC

|                                                                           |                        |                                                                       |                   |
|---------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 57 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 41 A                   | Rated current, min. number of poles (Tu=40°C)                         | 41 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 41 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 1,000 V           |
| Rated voltage for surge voltage class / pollution degree III/2            | 630 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 630 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 420 A |
| Clearance, min.                                                           | 6.9 mm                 | Creepage distance, min.                                               | 9.6 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) 35 A

Rated current (Use group C / CSA) 35 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) 40.5 A

Rated current (Use group C / UL 1059) 40.5 A

Rated current (Use group D / UL 1059) 5 A

Clearance distance, min. 6.9 mm

Creepage distance, min. 9.6 mm

Reference to approval values

Specifications are maximum values, details - see approval certificate.

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 338 mm |
| VPE width | 130 mm | VPE height | 33 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 |

## 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

- Additional variants on request
- 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****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>                                                                                                                                                                                                                                                                                                                                                |
| 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> |

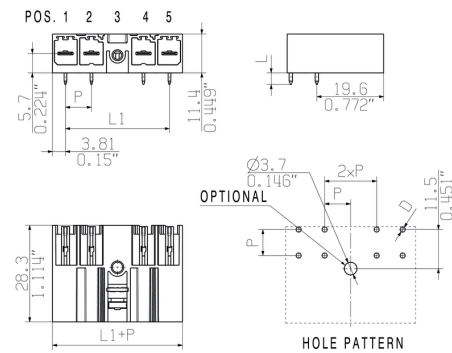
## SV 7.62HP/06/90MSF4 3.5SN BK BX

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# Drawings

## Dimensional drawing



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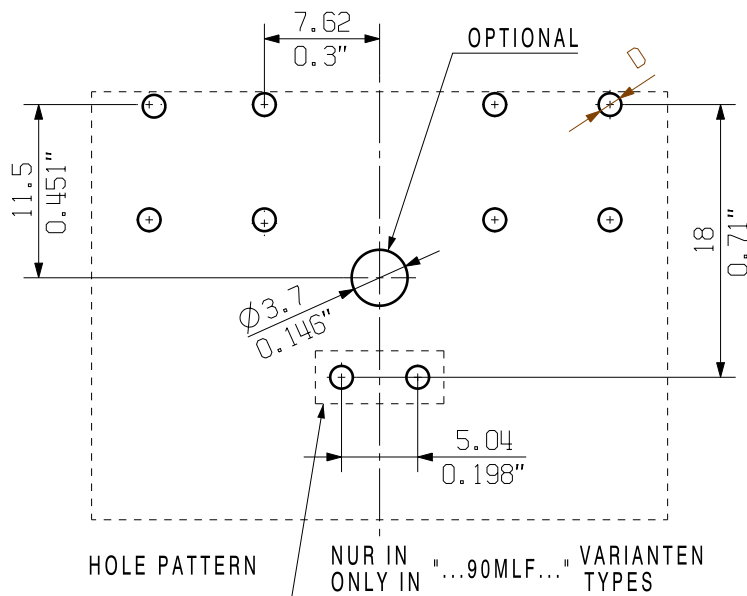
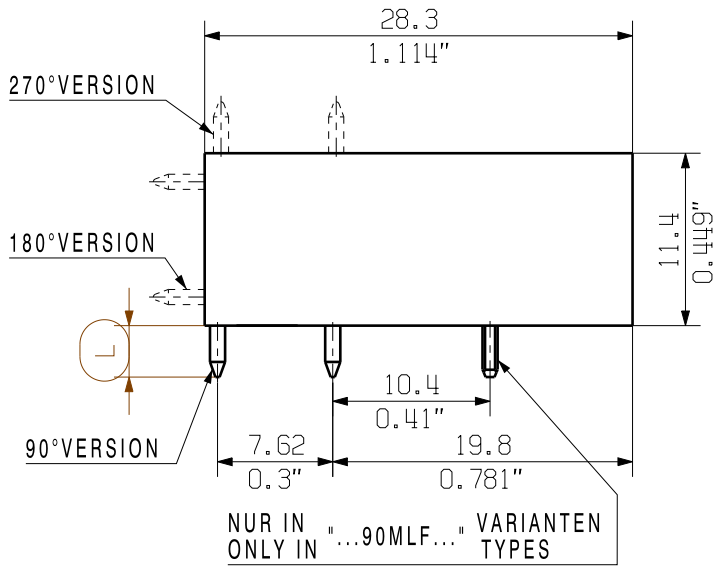
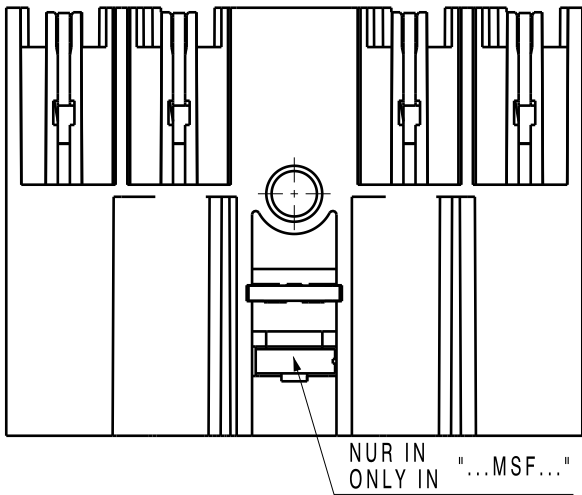
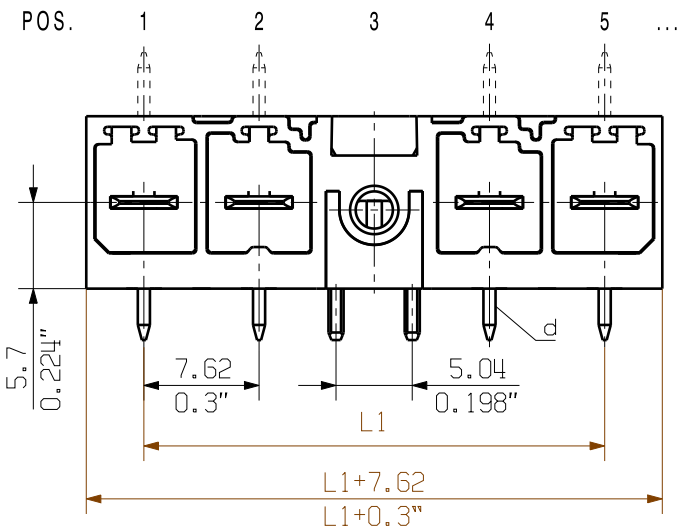
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Dimensions without tolerances are no check dimensions

The English version is binding

allgemeingültige Kundenzeichnung, aktueller Stand nur auf Anfrage /  
general customer drawing, topical version only if required

SHOWN: SV 7.62HP/04/90MSF



MF= Mittelflansch  
middle flange  
MSF= Mittelschraubflansch  
middle flange with screw  
MLF= Mittellötflansch  
middle solder flange

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.

GENERAL TOLERANCE:  
DIN ISO 2768-m



Scale: 2:1

Supersedes: .

100459/5

12.06.18 HELIS\_MA

00

Modification

Drawn

Date

Name

Responsible

Checked

Approved

24.02.2009

10.07.2018

LANG\_T

HELIS\_MA

KRUG\_M

HERTEL\_S

LANG\_T

**Weidmüller**



**3 49530 19**

Drawing no. Issue no.

Sheet 01 of 01 sheets

**SV 7.62HP...M(S/L)F...**

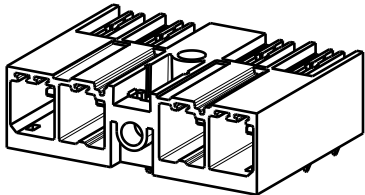
STIFTSLEISTE  
MALE HEADER

Product file: SV/BVZ 7.62HP

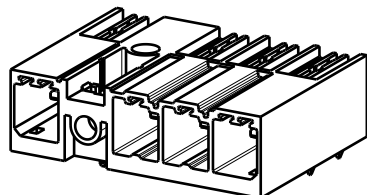
7340

|                          |   |             |         |           |   |   |   |   |   |    |   |   |   |             |  |  |  |  |  |
|--------------------------|---|-------------|---------|-----------|---|---|---|---|---|----|---|---|---|-------------|--|--|--|--|--|
| SV 7.62HP/08/...M(S/L)F5 | 8 | 60.92       | 2.34    |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/06/...M(S/L)F6 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/06/...M(S/L)F5 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/06/...M(S/L)F4 | 6 | 45.72       | 1.80    |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/06/...M(S/L)F3 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/06/...M(S/L)F2 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/05/...M(S/L)F5 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/05/...M(S/L)F4 | 5 | 38.10       | 1.50    |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/05/...M(S/L)F3 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/05/...M(S/L)F2 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/04/...M(S/L)F4 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/04/...M(S/L)F3 | 4 | 30.48       | 1.20    |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/04/...M(S/L)F2 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/03/...M(S/L)F3 | 3 | 22.86       | 0.90    |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/03/...M(S/L)F2 |   |             |         |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| SV 7.62HP/02/...M(S/L)F2 | 2 | 15.24       | 0.60    |           |   |   |   |   |   | MF |   |   |   |             |  |  |  |  |  |
| description              | n | no of poles | L1 [mm] | L1 [inch] | 1 | 2 | 3 | 4 | 5 | 6  | 7 | 8 | 9 | position MF |  |  |  |  |  |

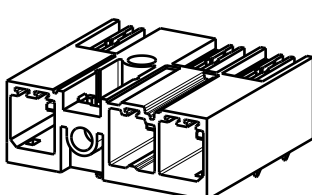
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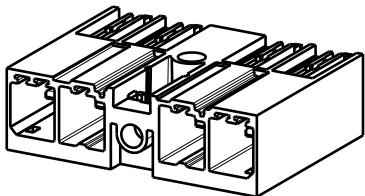
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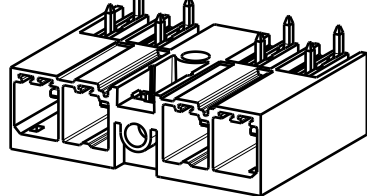
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SV 7.62HP/03/90MF2...



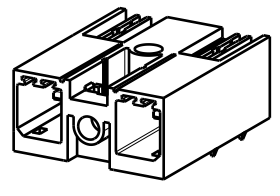
M 1:1  
SV 7.62HP/04/180MF...



M 1:1  
SV 7.62HP/04/270MF...



M 1:1  
SV 7.62HP/02/90MF...



## 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.