

SV 7.62HP/05/90MSF4 3.5SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

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: 5, 90°, Solder pin length (l): 3.5 mm, tinned, black, Box |
| Order No. | 1048710000 |
| Type | SV 7.62HP/05/90MSF4 3.5SN BK BX |
| GTIN (EAN) | 4032248786329 |
| Qty. | 36 pc(s). |
| Product data | IEC: 1000 V / 57 A UL: 300 V / 40.5 A |
| Packaging | Box |

Creation date July 22, 2024 5:56:57 PM CEST

Catalogue status 13.07.2024 / We reserve the right to make technical changes.

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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 | 45.72 mm |
| Width (inches) | 1.8 inch | Net weight | 3.75 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 " | Outgoing elbow | 90° |
| Number of poles | 5 | 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 | 38.1 mm |
| L1 in inches | 1.5 " | 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 voltage (Use group F / UL 1059) 744 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

Rated current (Use group F / UL 1059) 40.5 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 | 350 mm |
| VPE width | 135 mm | VPE height | 41 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 |

Environmental Product Compliance

| | |
|------------------------|-----------------------------|
| REACH SVHC | / |
| RoHS Compliance Status | Compliant without exemption |

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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"> • 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. • 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 • Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months |

Approvals

Approvals



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

Downloads

| | |
|---|--|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | CAD data – STEP |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN |

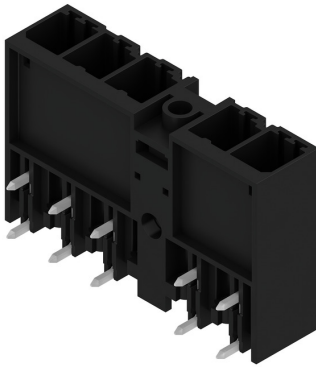
SV 7.62HP/05/90MSF4 3.5SN BK BX

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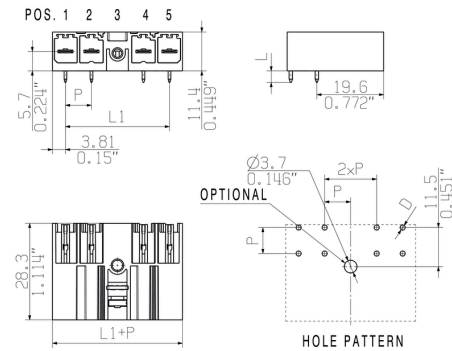
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Drawings

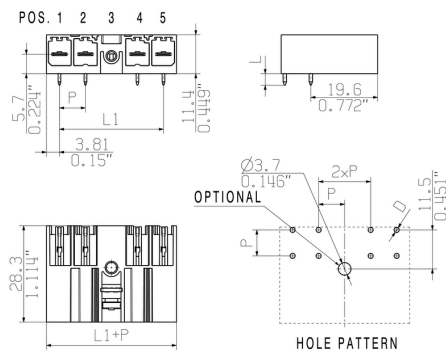
Product image



Dimensional drawing



Dimensional drawing



SV 7.62HP/05/90MSF4 3.5SN BK BX

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Accessories

Coding elements



The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.

OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.

The three product lines offer you further advantages:

- Application-oriented scalability: from the compact 4 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

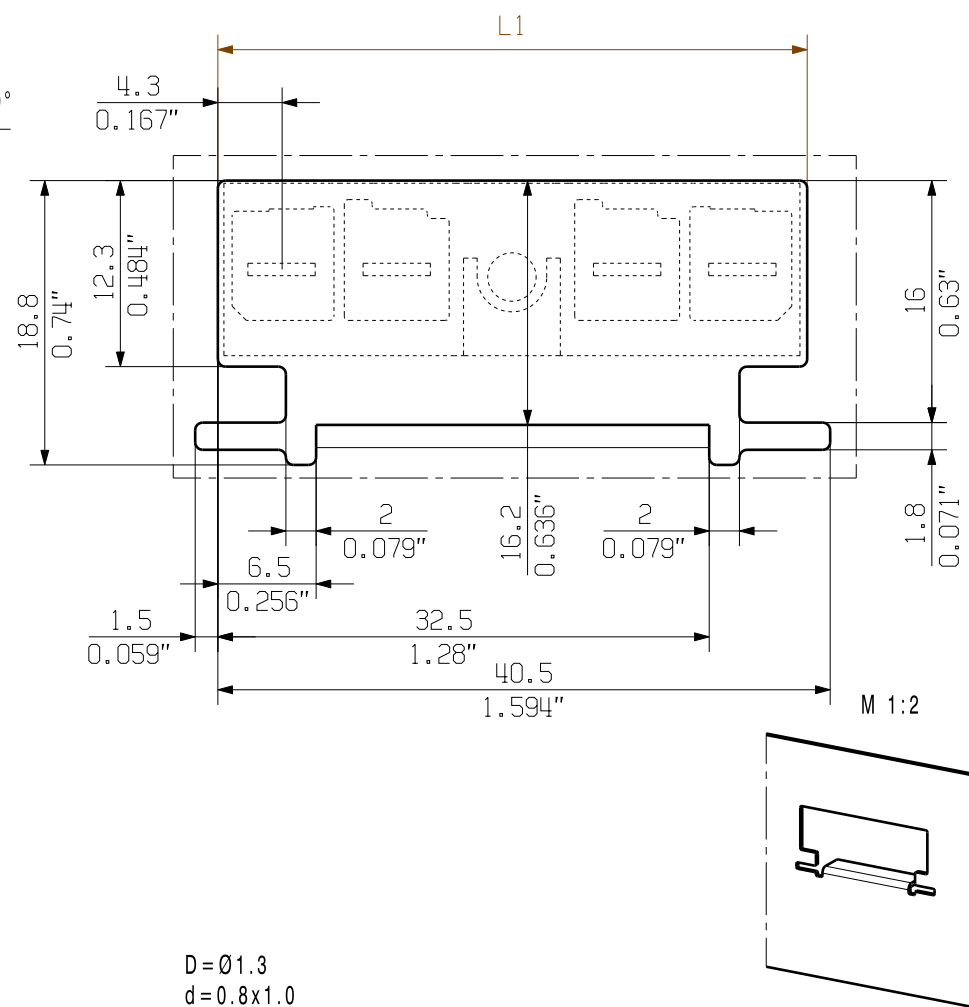
Our Service:

Design your individual connectors simply by using the

General ordering data

| Type | BV/SV 7.62HP KO | Version | Product data | Packaging |
|------------|----------------------------|---|--------------|-----------|
| Order No. | 1937590000 | PCB plug-in connector, Accessories, Coding element, black, Number | | Box |
| GTIN (EAN) | 4032248608881 | of poles: 1 | | |
| Qty. | 50 pc(s). | | | |

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.

| | | | | | | | | | | | | | |
|--------------------------|--------------------------|-------------|---------|-----------|-------------|---|---|----|----|----|----|---|---|
| W | 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 | | | | | | | | | 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 | 5 | 38.10 | 1.50 | | | | | MF | | | | |
| | SV 7.62HP/05/...M(S/L)F4 | | | | | | | | | 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 | 4 | 30.48 | 1.20 | | | | | MF | | | | |
| | SV 7.62HP/04/...M(S/L)F3 | | | | | | | | | 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 | | | | | | | | |

GENERAL TOLERANCE:
DIN ISO 2768-m



Scale: 2:1

Supersedes: .

| | | |
|------------------------------------|------------|----|
| 100459/5 12.06.18 HELIS_MA . | | 00 |
| Modification | | |
| | Date | |
| Drawn | 24.02.2009 | |
| Responsible | | |
| Checked | 10.07.2018 | |
| Approved | | |

Weidmüller 

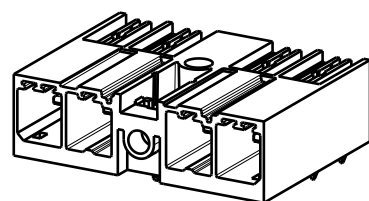
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| 3 49530 | 19 |
| Drawing no. | Issue no. |
| Sheet 01 | of 01 sheets |

SV 7.62HP...M(S/L)F...
STIFTFLEISTE
MALE HEADER

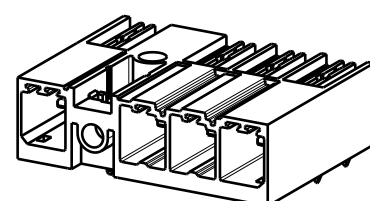
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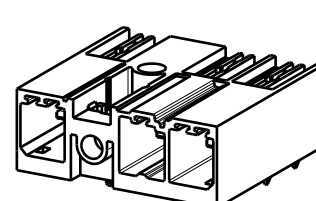
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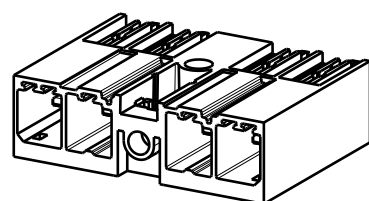
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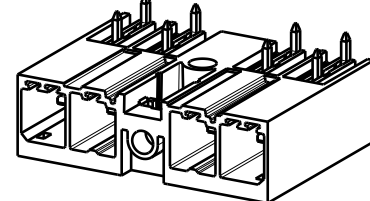
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SV 7.62HP/03/90MF2...



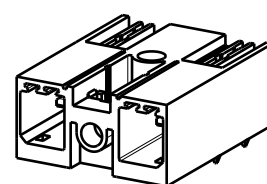
M 1:1
SV 7.62HP/04/180MF...



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



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



| | |
|---------------------------|------------------------|
| 3.5 | +0.1 |
| | -0.3 |
| Stiftlänge/ pin length | Toleranz/ tolerance |

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

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.