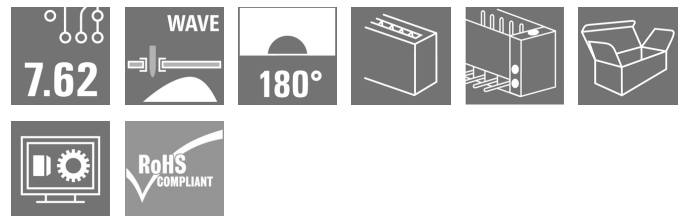


**SV 7.62HP/04/180MF4 3.5SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image**

180° male header with middle flange with a 7.62 pitch.  
Meets the requirements of IEC 61800-5-1 and enables  
UL approval as per UL840 600 V.

Without a female header, the mating profile guarantees  
minimum touch safety of >3 mm with 20 N pressure on  
the test finger.

The automatically locking middle flange which can op-  
tionally also be screwed, reduces space requirements by  
one pitch width in comparison with conventional solu-  
tions.

On request: available with screw flange or without flange.

**General ordering data**

|              |                                                                                                                                                                                      |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, male header, closed side,<br>Middle flange, THT solder connection, 7.62 mm,<br>Number of poles: 4, 180°, Solder pin length (l): 3.5<br>mm, tinned, black, Box |
| Order No.    | <a href="#">1464330000</a>                                                                                                                                                           |
| Type         | SV 7.62HP/04/180MF4 3.5SN BK BX                                                                                                                                                      |
| GTIN (EAN)   | 4050118270983                                                                                                                                                                        |
| Qty.         | 48 pc(s).                                                                                                                                                                            |
| Product data | IEC: 1000 V / 57 A<br>UL: 300 V / 40.5 A                                                                                                                                             |
| Packaging    | Box                                                                                                                                                                                  |

Creation date May 11, 2025 6:09:35 PM CEST

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## Technical data

## Dimensions and weights

|                          |          |                 |            |
|--------------------------|----------|-----------------|------------|
| Depth                    | 11.4 mm  | Depth (inches)  | 0.449 inch |
| Height                   | 31.8 mm  | Height (inches) | 1.252 inch |
| Height of lowest version | 28.3 mm  | Width           | 38.1 mm    |
| Width (inches)           | 1.5 inch | Net weight      | 8.812 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                               | 180°                                       |                   |                                           |
| Number of poles                              | 4                                          |                   |                                           |
| 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                                     | 30.48 mm                                   |                   |                                           |
| L1 in inches                                 | 1.2 "                                      |                   |                                           |
| Number of rows                               | 1                                          |                   |                                           |
| Pin series quantity                          | 2                                          |                   |                                           |
| 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                                        |                   |                                           |
| Plugging cycles                              | 25                                         |                   |                                           |
| Tightening torque                            | Torque type                                | Screw flange      |                                           |
|                                              | Usage information                          | Thickness         | nominal 1.6 mm                            |
|                                              |                                            |                   | nominal 3.2 mm                            |
|                                              |                                            | Tightening torque | min. 0.65 Nm                              |
|                                              |                                            |                   | max. 0.85 Nm                              |
|                                              |                                            | Recommended screw | Part number                               |
|                                              |                                            |                   | Screw type EJOT Delta PT 30x10 or similar |
|                                              |                                            | Thickness         | nominal 4.8 mm                            |
|                                              |                                            |                   | min. 0.8 Nm                               |
|                                              |                                            | Tightening torque | max. 1 Nm                                 |
|                                              |                                            |                   | Recommended screw                         |
|                                              |                                            |                   | Part number                               |
|                                              |                                            |                   | Screw type EJOT Delta PT 30x12 or similar |

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## Technical data

## 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 | Layer structure of plug contact       | 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            |

## 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.              |                                       |        |

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## Technical data

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 350 mm |
| VPE width | 139 mm | VPE height | 41 mm  |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002637    | ETIM 7.0    | EC002637    |
| ETIM 8.0    | EC002637    | ETIM 9.0    | EC002637    |
| ETIM 10.0   | 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 | ECLASS 14.0 | 27-46-02-01 |
| ECLASS 15.0 | 27-46-02-01 |             |             |

## Environmental Product Compliance

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

## 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>• 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>• 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



|                         |                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID         | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319226/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/</a> |
| ROHS                    | Conform                                                                                                                                                                                                                                                                                                                                                 |
| UL File Number Search   | UL Website                                                                                                                                                                                                                                                                                                                                              |
| Certificate No. (cURus) | E60693                                                                                                                                                                                                                                                                                                                                                  |

## SV 7.62HP/04/180MF4 3.5SN BK BX

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[www.weidmueller.com](http://www.weidmueller.com)

# Technical data

## Downloads

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Con-<br>formity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                              |
| Engineering Data                                 | <a href="#">CAD data – STEP</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> |

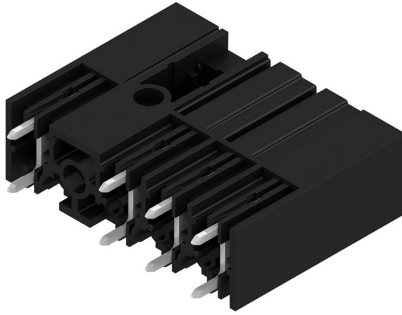
**SV 7.62HP/04/180MF4 3.5SN BK BX**

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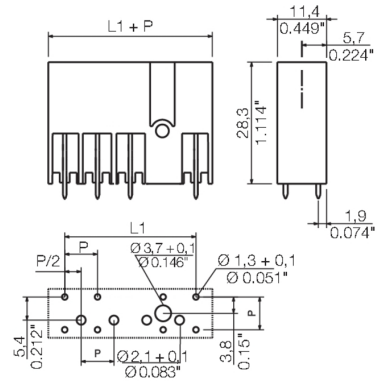
www.weidmueller.com

## Drawings

### Product image



## Dimensional drawing



|                |                                  |                                                                                     |   |   |   |   |   |   |
|----------------|----------------------------------|-------------------------------------------------------------------------------------|---|---|---|---|---|---|
| 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 |
|                |                                  |  |   |   |   |   |   |   |

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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 mm<sup>2</sup> connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm<sup>2</sup> 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       | VDS180 SV7.62              | Version                                                                       | Product data | Packaging |
|------------|----------------------------|-------------------------------------------------------------------------------|--------------|-----------|
| Order No.  | <a href="#">1853940000</a> | PCB plug-in connector, Accessories, black, Number of poles: 1                 |              | Box       |
| GTIN (EAN) | 4032248389513              |                                                                               |              |           |
| Qty.       | 50 pc(s).                  |                                                                               |              |           |
| Type       | BV/SV 7.62HP KO            | Version                                                                       | Product data | Packaging |
| Order No.  | <a href="#">1937590000</a> | PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1 |              | Box       |
| GTIN (EAN) | 4032248608881              |                                                                               |              |           |
| Qty.       | 50 pc(s).                  |                                                                               |              |           |

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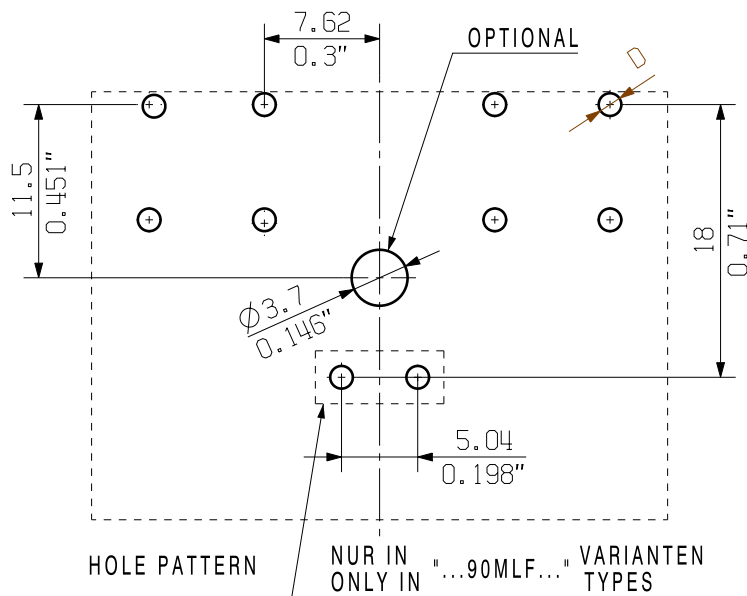
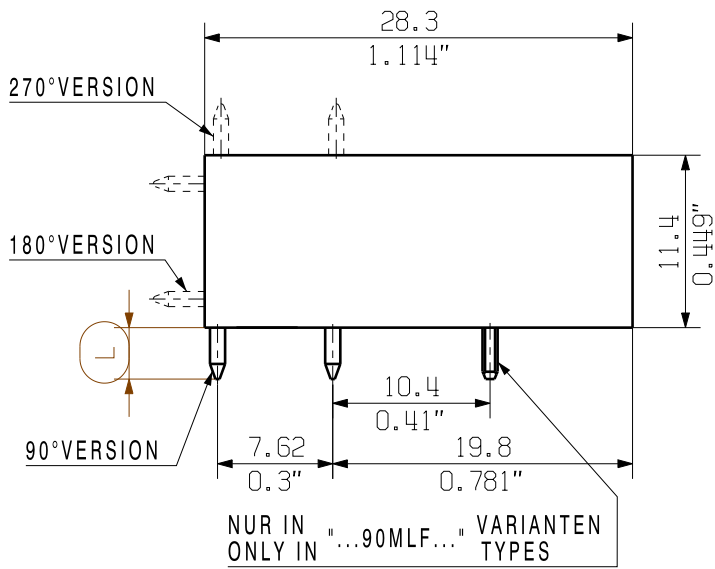
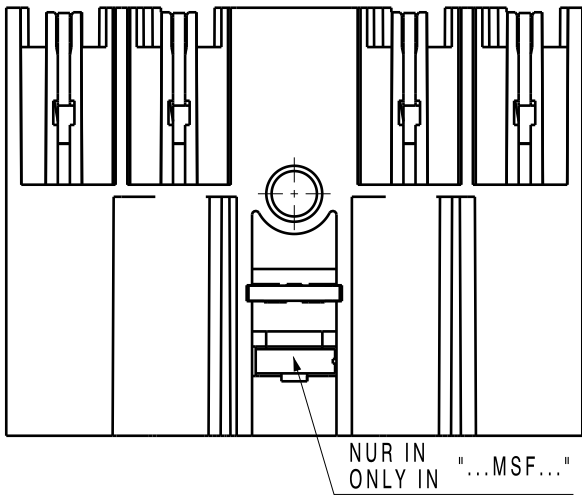
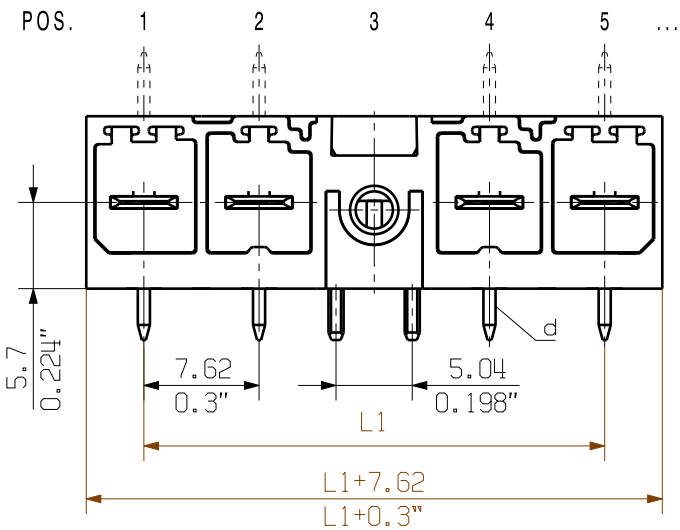
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Dimensions without tolerances are no check dimensions

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 24.02.2009 HELIS\_MA

Responsible KRUG\_M

Checked 10.07.2018 HERTEL\_S

Approved LANG\_T

**Weidmüller**



3 49530 19

Drawing no. 3 49530 19  
Sheet 01 of 01 sheets

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

STIFTSLEISTE  
MALE HEADER

Product file: SV/BVZ 7.62HP

7340

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
[www.weidmueller.com](http://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.