

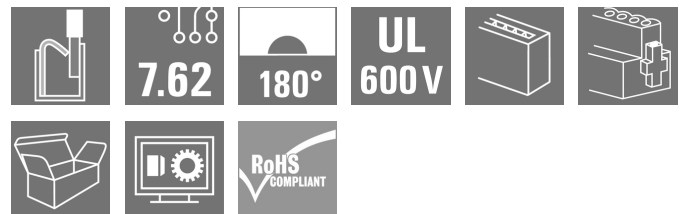
**SVF 7.62HP/04/180SFMF2 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

180° inverted male header with PUSH IN connection technology for field wiring in 6 mm<sup>2</sup> with 7.62 pitch as "three-flange variant" for housing passage. Suitable for housings with a max. wall thickness of 2 mm.

Also perfect as a finger-safe solution for inverse voltages. Meets the requirements of UL1059 600 V class C and IEC 61800-5-1.

**General ordering data**

|              |  |
|--------------|--|
| Version      | PCB plug-in connector, male plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN without actuator, Tension-clamp connection, Clamping range, max. : 10 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1427250000</a>   |
| Type         | SVF 7.62HP/04/180SFMF2 SN BK BX  |
| GTIN (EAN)   | 4050118231335  |
| Qty.         | 25 pc(s).  |
| Product data | IEC: 1000 V / 57 A / 0.5 - 10 mm <sup>2</sup><br>UL: 600 V / 39 A / AWG 24 - AWG 10  |
| Packaging    | Box  |

Creation date July 5, 2024 3:20:03 PM CEST

Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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## Technical data

## Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 47.7 mm  | Depth (inches)  | 1.878 inch |
| Height     | 23.4 mm  | Height (inches) | 0.921 inch |
| Width      | 53.34 mm | Width (inches)  | 2.1 inch   |
| Net weight | 27.76 g  |                 |            |

## System Parameters

|  |  |  |                        |
|--|--|--|------------------------|
| Product family                             | OMNIMATE Power - series BV/SV 7.62HP               | Type of connection                           | Field connection       |
| Wire connection method                     | PUSH IN without actuator, Tension-clamp connection | Pitch in mm (P)                              | 7.62 mm                |
| Pitch in inches (P)                        | 0.3 "  | Conductor outlet direction                   | 180°                   |
| Number of poles                            | 4  | 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 |
| Touch-safe protection acc. to DIN VDE 0470 | IP20 plugged                                       | Protection degree                            | IP20                   |
| Volume resistance                          | 4.50 mΩ  | Can be coded                                 | Yes                    |
| Stripping length                           | 12 mm  | Tightening torque for screw flange, min.     | 0.2 Nm                 |
| Tightening torque for screw flange, max.   | 0.3 Nm   | Screwdriver blade                            | 0.6 x 3.5              |
| 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                      | Cu-alloy           | Contact surface                       | tinned |
| Layer structure of plug contact       | 4...6 µm Sn glossy | Storage temperature, min.             | -40 °C |
| Storage temperature, max.             | 70 °C              | Operating temperature, min.           | -50 °C |
| Operating temperature, max.           | 125 °C             | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 125 °C             |                                       |        |

## Conductors suitable for connection

|   |                     |
|---|---------------------|
| Clamping range, min.  | 0.5 mm <sup>2</sup> |
| Clamping range, max.  | 10 mm <sup>2</sup>  |
| Solid, min. H05(07) V-U   | 0.5 mm <sup>2</sup> |
| Solid, max. H05(07) V-U   | 6 mm <sup>2</sup>   |
| Stranded, min. H07V-R   | 10 mm <sup>2</sup>  |
| Stranded, max. H07V-R   | 10 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K  | 0.5 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K  | 10 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm <sup>2</sup> min. |                     |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 mm <sup>2</sup> max.   |                     |
| w. wire end ferrule, DIN 46228 pt 1, 1.5 mm <sup>2</sup> min.       |                     |
| w. wire end ferrule, DIN 46228 pt 1, 6 mm <sup>2</sup> max.         |                     |

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## Technical data

|                     |  |                              |                             |       |  |
|---------------------|--|------------------------------|-----------------------------|-------|--|
| Clampable conductor | Cross-section for conductor connection   | Type                         | fine-wired                  |       |  |
|                     |  | nominal                      | 2.5 mm <sup>2</sup>         |       |  |
|                     | wire end ferrule   | Stripping length             | nominal                     | 12 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H2.5/12</a>     |       |  |
|                     |  | Stripping length             | nominal                     | 14 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H2.5/19D BL</a> |       |  |
|                     | Cross-section for conductor connection   | Type                         | fine-wired                  |       |  |
|                     |  | nominal                      | 4 mm <sup>2</sup>           |       |  |
|                     | wire end ferrule   | Stripping length             | nominal                     | 12 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H4.0/12</a>     |       |  |
|                     |  | Stripping length             | nominal                     | 14 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H4.0/20D GR</a> |       |  |
|                     | Cross-section for conductor connection   | Type                         | fine-wired                  |       |  |
|                     |  | nominal                      | 6 mm <sup>2</sup>           |       |  |
|                     | wire end ferrule   | Stripping length             | nominal                     | 12 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H6.0/12</a>     |       |  |
|                     |  | Stripping length             | nominal                     | 14 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H6.0/20 SW</a>  |       |  |
|                     | Cross-section for conductor connection   | Type                         | fine-wired                  |       |  |
|                     |  | nominal                      | 1.5 mm <sup>2</sup>         |       |  |
|                     | wire end ferrule   | Stripping length             | nominal                     | 15 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H1.5/18D SW</a> |       |  |
|                     |  | Stripping length             | nominal                     | 12 mm |  |
|                     |  | Recommended wire-end ferrule | <a href="#">H1.5/12</a>     |       |  |
| Reference text      | The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage. |                              |                             |       |  |

## 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)                             | 50 A                   |  | Rated current, min. number of poles (Tu=40°C)                         | 57 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 45 A                   |  | Rated voltage for surge voltage class / pollution degree II/2         | 1,000 V           |
| Rated voltage for surge voltage class / pollution degree III/2            | 800 V                  |  | Rated voltage for surge voltage class / pollution degree III/3        | 800 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 | 8 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 8 kV                   |  | Short-time withstand current resistance                               | 3 x 1s with 420 A |
| Clearance, min.   | 12.7 mm                |  | Creepage distance, min.   | 12.7 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) | 600 V  |
| Rated voltage (Use group D / CSA) | 600 V  |
| Rated current (Use group C / CSA) | 36 A   |
| Wire cross-section, AWG, min.     | AWG 24   |
| Reference to approval values      | Specifications are maximum values, details - see approval certificate. |

|                                   |        |
|-----------------------------------|--------|
| Rated voltage (Use group C / CSA) | 600 V  |
| Rated current (Use group B / CSA) | 36 A   |
| Rated current (Use group D / CSA) | 5 A    |
| Wire cross-section, AWG, max.     | AWG 10 |

## Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

|                                       |  |
|---------------------------------------|--|
| Rated voltage (Use group B / UL 1059) | 600 V  |
| Rated voltage (Use group D / UL 1059) | 600 V  |
| Rated current (Use group C / UL 1059) | 39 A   |
| Wire cross-section, AWG, min.         | AWG 24   |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate. |

|                                       |        |
|---------------------------------------|--------|
| Rated voltage (Use group C / UL 1059) | 600 V  |
| Rated current (Use group B / UL 1059) | 39 A   |
| Rated current (Use group D / UL 1059) | 5 A    |
| Wire cross-section, AWG, max.         | AWG 10 |

## Packing

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 352 mm |
| VPE width | 136 mm | VPE height | 61 mm  |

## Type tests

|  |            |  |
|--|------------|--|
| Test: Durability of markings                 | Standard   | DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96 |
|  | Test       | mark of origin, type identification, pitch                                       |
|  | Evaluation | available  |
|  | Test       | durability   |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed   |
|  | Standard   | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08            |
|  | Test       | 180° turned with coding elements   |
|  | Evaluation | passed   |
|  | Test       | 180° turned without coding elements  |
|  | Evaluation | passed   |

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|   |                |  |
|---|----------------|--|
| Test: Clampable cross section                             | Standard       | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 04.08 |
|   | Conductor type | Type of conductor and solid 0.5 mm <sup>2</sup> conductor cross-section            |
|   |                | Type of conductor and stranded 0.5 mm <sup>2</sup> conductor cross-section         |
|   |                | Type of conductor and solid 6 mm <sup>2</sup> conductor cross-section              |
|   |                | Type of conductor and stranded 6 mm <sup>2</sup> conductor cross-section           |
|   |                | Type of conductor and AWG 24/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 24/19 conductor cross-section                            |
|   |                | Type of conductor and AWG 14/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 14/19 conductor cross-section                            |
|   | Evaluation     | passed   |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00   |
|   | Requirement    | 0.3 kg   |
|   | Conductor type | Type of conductor and H05V-U0.5 conductor cross-section                            |
|   |                | Type of conductor and H05V-K0.5 conductor cross-section                            |
|   |                | Type of conductor and AWG 20/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 20/19 conductor cross-section                            |
|   | Evaluation     | passed   |
|   | Requirement    | 1.4 kg   |
|   | Conductor type | Type of conductor and H07V-U6 conductor cross-section                              |
|   |                | Type of conductor and H07V-K6 conductor cross-section                              |
|   |                | Type of conductor and AWG 10/1 conductor cross-section                             |
|   |                | Type of conductor and AWG 10/19 conductor cross-section                            |
|   | Evaluation     | passed   |

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## Technical data

|               |                |   |
|---------------|----------------|---|
| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00                      |
|               | Requirement    | ≥20 N   |
|               | Conductor type | Type of conductor and H05V-U0.5 conductor cross-section |
|               |                | Type of conductor and H05V-K0.5 conductor cross-section |
|               |                | Type of conductor and AWG 20/1 conductor cross-section  |
|               |                | Type of conductor and AWG 20/19 conductor cross-section |
|               | Evaluation     | passed  |
|               | Requirement    | ≥80 N   |
|               | Conductor type | Type of conductor and H07V-U6 conductor cross-section   |
|               |                | Type of conductor and H07V-K6 conductor cross-section   |
|               |                | Type of conductor and AWG 10/1 conductor cross-section  |
|               |                | Type of conductor and AWG 10/19 conductor cross-section |
|               | Evaluation     | passed  |

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | EC002638    |
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ECLASS 9.0  | 27-44-03-09 | ECLASS 9.1  | 27-44-03-09 |
| ECLASS 10.0 | 27-44-03-09 | ECLASS 11.0 | 27-46-02-02 |
| ECLASS 12.0 | 27-46-02-02 | ECLASS 13.0 | 27-46-02-02 |

## Environmental Product Compliance

REACH SVHC

/

## SVF 7.62HP/04/180SFMF2 SN BK BX

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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>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</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



|                         |            |
|-------------------------|------------|
| 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="#">20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors</a><br><a href="#">20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder</a>   |
| User Documentation                          | <a href="#">QR-Code product handling video</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> |

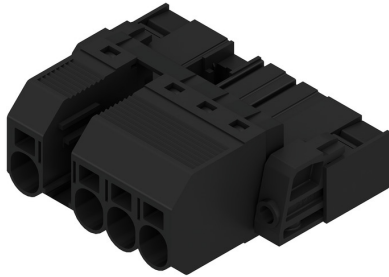
## SVF 7.62HP/04/180SFMF2 SN BK BX

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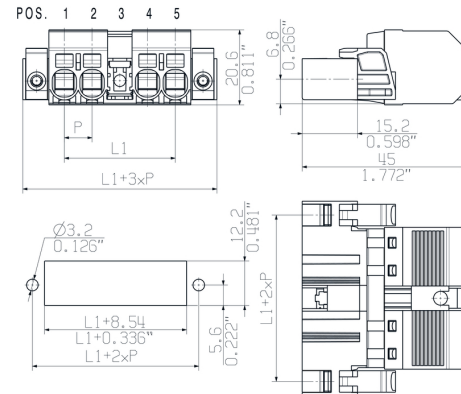
[www.weidmueller.com](http://www.weidmueller.com)

# Drawings

## Product image



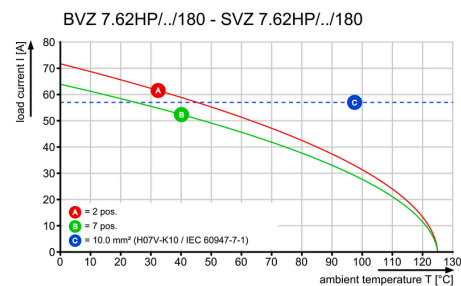
## Dimensional drawing



## Graph



## Graph





## SVF 7.62HP/04/180SFMF2 SN 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 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       | BV/SV 7.62HP KO            | Version   | Product data | Packaging |
|------------|----------------------------|---|--------------|-----------|
| Order No.  | <a href="#">1937590000</a> | PCB plug-in connector, Accessories, Coding element, black, Number |              | Box       |
| GTIN (EAN) | 4032248608881              | of poles: 1   |              |           |
| Qty.       | 50 pc(s).                  |   |              |           |

## Coupling set



With the aid of the SVF/BVF 7.62HP COUPLE SET the two plug-in elements can be connected back-to-back to form a 2-row connector with a maximum of 2 x 4 poles.

## General ordering data

| Type       | SVF/BVF 7.62HP COUPLE S ... | Version   | Product data | Packaging |
|------------|-----------------------------|---|--------------|-----------|
| Order No.  | <a href="#">1440850000</a>  | PCB plug-in connector, Accessories, Mounting block, black |              | Box       |
| GTIN (EAN) | 4050118247060               |   |              |           |
| Qty.       | 20 pc(s).                   |   |              |           |

**SVF 7.62HP/04/180SFMF2 SN BK BX**

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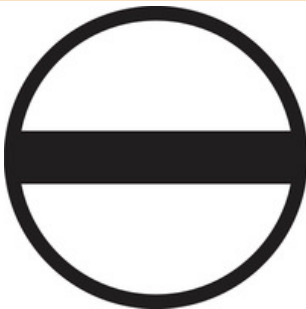
[www.weidmueller.com](http://www.weidmueller.com)

**Accessories****Crimping tools****Crimping tools for wire end ferrules, with and without plastic collars**

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

**General ordering data**

|            |                            |  |
|------------|----------------------------|--|
| Type       | PZ 6/5                     | Version  |
| Order No.  | <a href="#">9011460000</a> | Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> , |
| GTIN (EAN) | 4008190165352              | Trapezoidal indentation crimp  |
| Qty.       | 1 pc(s).                   |  |

**Slotted screwdriver**

Slotted screwdriver with rounded blade SD DIN 5265,  
ISO 2380/2, output to DIN 5264, ISO 2380/1.  
ChromTop tip, SoftFinish grip

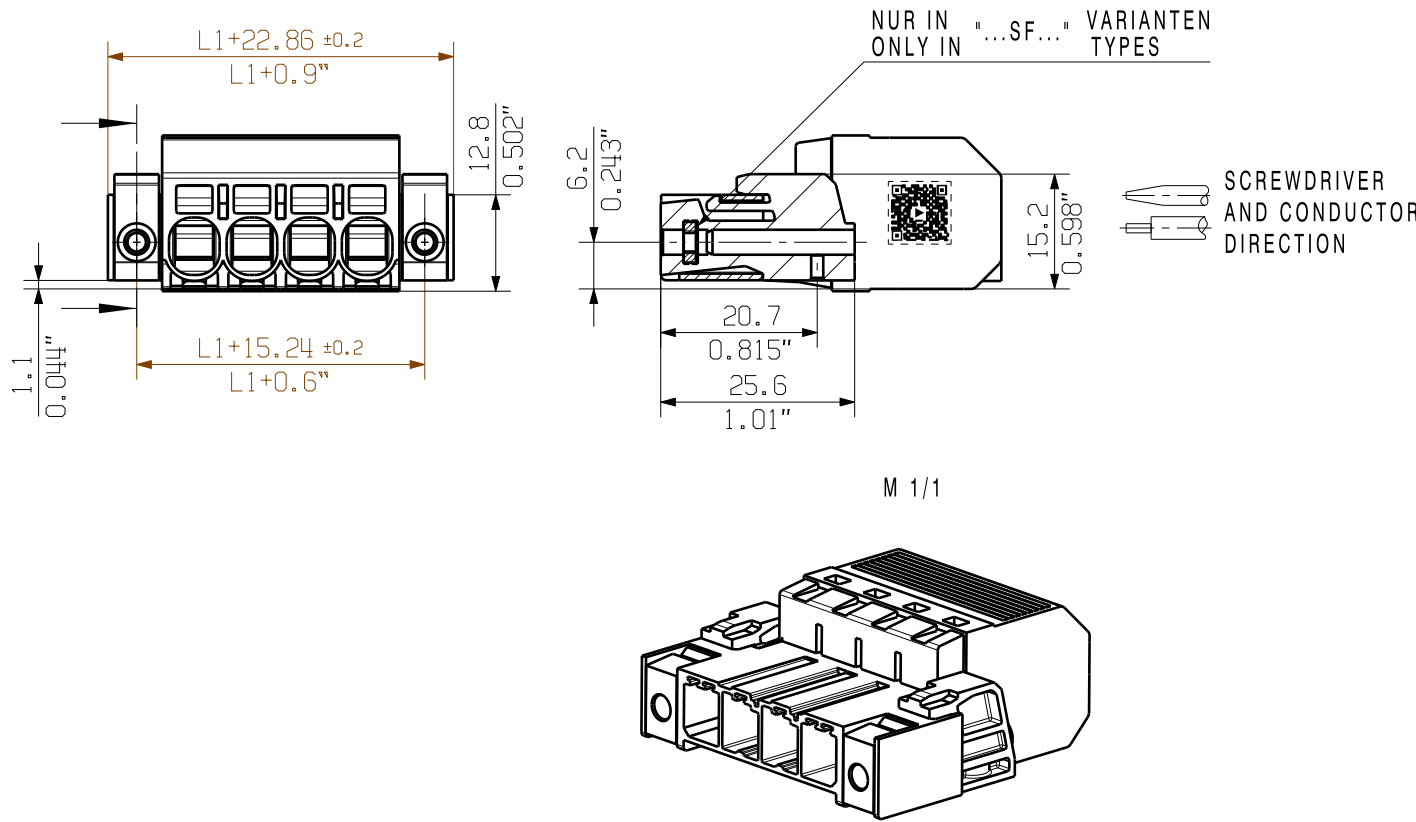
**General ordering data**

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Type       | SDS 0.8X4.5X125            | Version                  |
| Order No.  | <a href="#">9009020000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248266883              |                          |
| Qty.       | 1 pc(s).                   |                          |

SHOWN: SVF7.62HP/04/180

SHOWN: SVF7.62HP/04/180SF

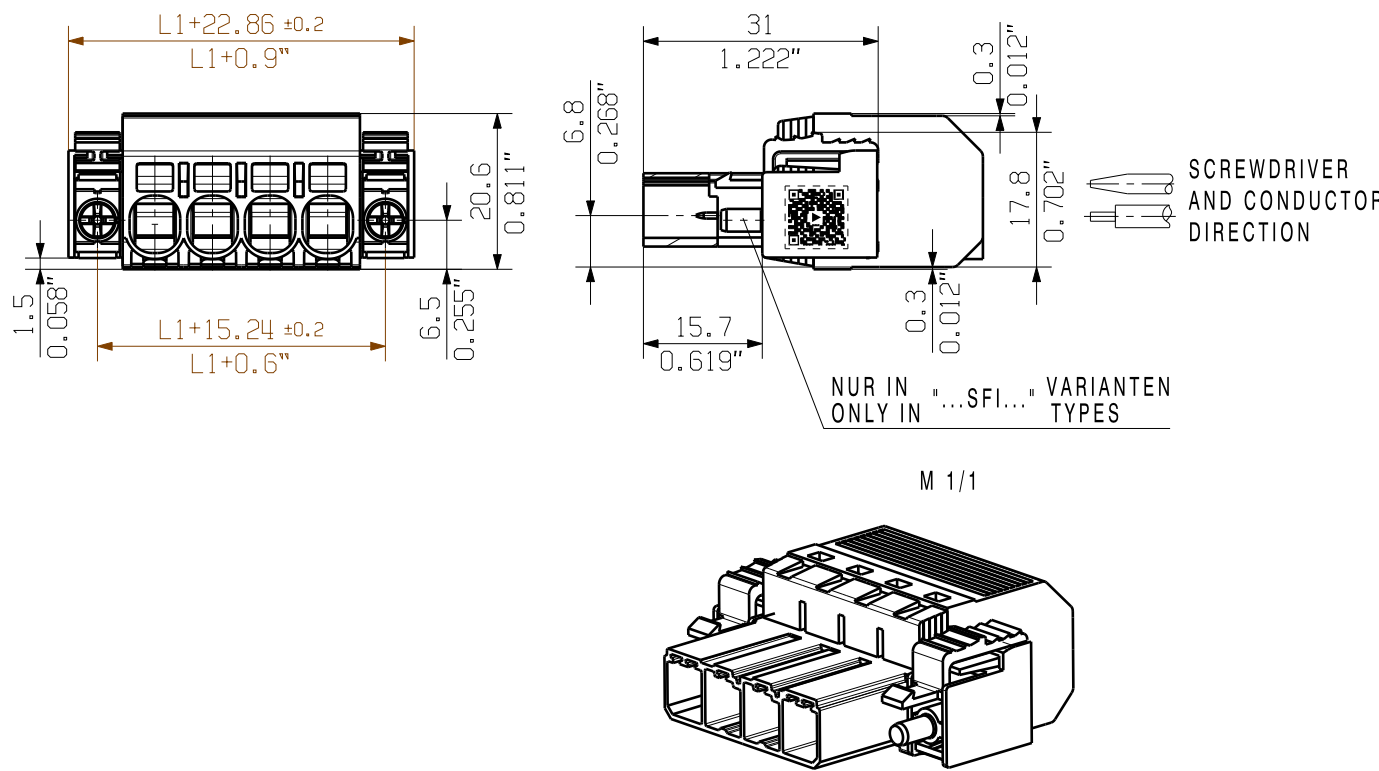
SHOWN: SVF7.62HP/04/180SFMF3



SHOWN: SVF7.62HP/04/180MSF

SHOWN: SVF7.62HP/04/180SFI

SHOWN: SVF7.62HP/04/180SFBMF3



P=RASTER/PITCH  
n=POLZAHL/NO OF POLES  
MF=MITTELFLENSCH/MIDDLE FLANGE

|        |      |     |     |     |     |     |     |
|--------|------|-----|-----|-----|-----|-----|-----|
| 6 MF 4 | POL  | POL | POL | MF  | POL | POL | POL |
| 5 MF 4 | POL  | POL | POL | MF  | POL | POL |     |
| 5 MF 3 | POL  | POL | MF  | POL | POL | POL |     |
| 4 MF 4 | POL  | POL | POL | MF  | POL |     |     |
| 4 MF 3 | POL  | POL | MF  | POL | POL |     |     |
| 3 MF 3 | POL  | POL | MF  | POL |     |     |     |
| 3 MF 2 | POL  | MF  | POL | POL |     |     |     |
| 2 MF 2 | POL  | MF  | POL |     |     |     |     |
| POLE   | 1    | 2   | 3   | 4   | 5   | 6   | 7   |
| n      | POS. |     |     |     |     |     |     |

GENERAL TOLERANCE:  
DIN ISO 2768-mK

First Issue Date  
28.05.2018

RoHS  
COMPLIANT

Prim PLM Part No.: 005075

ORDER NUMBERS  
SEE DRAWING 46101 SHEET 01

|   |         |           |
|---|---------|-----------|
| 6 | 38,10   | 1,5       |
| 5 | 30,48   | 1,2       |
| 4 | 22,86   | 0,9       |
| 3 | 15,24   | 0,6       |
| 2 | 7,62    | 0,3       |
| n | L1 (mm) | L1 (Inch) |



Date  
28.05.2018  
Name  
Administrator  
Responsible  
Krug, Matthias  
Approved  
26.10.2018  
Lang, Thomas

46102

14  
Drawing no. 46102  
Sheet 01 of 01 sheets

SVF7.62HP/./180...  
STIFTSTECKER  
MALE PLUG

Product file: 7390 BVF/SVF 7.62HP

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance with VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.