

**SVF 7.62HP/03/180SFMF3 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Similar to illustration

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: 3, 180°, PUSH IN, Clamping range, max. : 10 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1427240000</a>                                                                                                    |
| Type         | SVF 7.62HP/03/180SFMF3 SN BK BX                                                                                               |
| GTIN (EAN)   | 4050118231274                                                                                                                 |
| Qty.         | 30 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 March 23, 2021 10:29:41 PM CET

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## Technical data

## Dimensions and weights

|            |        |
|------------|--------|
| Net weight | 22.8 g |
|------------|--------|

## System Parameters

|                                                 |                                         |                                               |                  |
|-------------------------------------------------|-----------------------------------------|-----------------------------------------------|------------------|
| Product family                                  | OMNIMATE Power - series<br>BV/SV 7.62HP | Type of connection                            | Field connection |
| Wire connection method                          | PUSH IN                                 | Pitch in mm (P)                               | 7.62 mm          |
| Pitch in inches (P)                             | 0.3 inch                                | Conductor outlet direction                    | 180°             |
| Number of poles                                 | 3                                       | L1 in mm                                      | 22.86 mm         |
| L1 in inches                                    | 0.9 inch                                | Pin series quantity                           | 1                |
| Touch-safe protection acc. to DIN VDE<br>57 106 | Safe from finger touch                  | Touch-safe protection acc. to DIN VDE<br>0470 | IP20 plugged     |
| 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                      | Copper 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, 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><br>min. |                     |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 mm <sup>2</sup><br>max.   |                     |
| w. wire end ferrule, DIN 46228 pt 1, 1.5 mm <sup>2</sup><br>min.       |                     |
| w. wire end ferrule, DIN 46228 pt 1, 6 mm <sup>2</sup><br>max.         |                     |

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|                     |                                                                                                                                                                        |                              |                             |       |  |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|-------|--|
| 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, max. number of poles (Tu=20°C)                             | 50 A  | Rated current, min. number of poles (Tu=20°C)                         | 57 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 45 A  | Rated current, min. number of poles (Tu=40°C)                         | 57 A              |
| Rated voltage for surge voltage class / pollution degree III/2            | 800 V | Rated voltage for surge voltage class / pollution degree II/2         | 1,000 V           |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 6 kV  | Rated voltage for surge voltage class / pollution degree III/3        | 800 V             |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 8 kV  | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 8 kV              |
|                                                                           |       | Short-time withstand current resistance                               | 3 x 1s with 420 A |

## SVF 7.62HP/03/180SFMF3 SN BK BX

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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 | 350 mm |
| VPE width | 135 mm | VPE height | 60 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 conductor cross-section                                      | solid 0.5 mm <sup>2</sup>    |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 0.5 mm <sup>2</sup> |
|                                                           |                | Type of conductor and conductor cross-section                                      | solid 6 mm <sup>2</sup>      |
|                                                           |                | Type of conductor and conductor cross-section                                      | stranded 6 mm <sup>2</sup>   |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 24/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 24/19                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 14/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 14/19                    |
|                                                           | 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 conductor cross-section                                      | H05V-U0.5                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | H05V-K0.5                    |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 20/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 1.4 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | H07V-U6                      |
|                                                           |                | Type of conductor and conductor cross-section                                      | H07V-K6                      |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 10/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 10/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |

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

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | 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 |

## 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 colours 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>• MFX and MSFX: X= Position of the middle flange e.g. MF2, MSF3</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## Technical data

### Approvals

Approvals



|                       |         |
|-----------------------|---------|
| ROHS                  | Conform |
| UL File Number Search | E60693  |

### Downloads

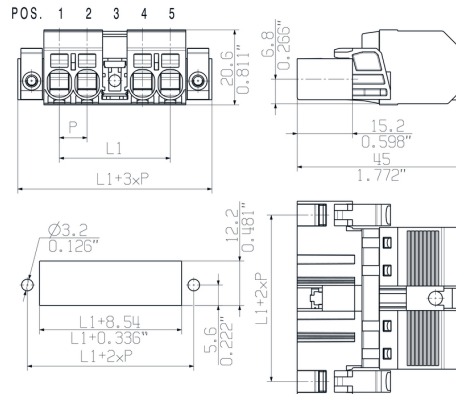
|                                             |                                                 |
|---------------------------------------------|-------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a> |
| Engineering Data                            | <a href="#">STEP</a>                            |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                    |
| User Documentation                          | <a href="#">QR-Code product handling video</a>  |

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## Drawings



## Connection diagram

|   |        |   |   |   |   |   |   |   |
|---|--------|---|---|---|---|---|---|---|
| 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 | o |
| 5 | M(S)F4 | o | o | o | X | o | o | o |
| 5 | M(S)F3 | o | o | X | o | o | o | o |
| 5 | M(S)F2 | o | X | o | o | o | o | o |
| 4 | M(S)F4 | o | o | o | X | o | o | o |
| 4 | M(S)F3 | o | o | X | o | o | o | o |
| 4 | M(S)F2 | o | X | o | o | o | o | o |
| 3 | M(S)F3 | o | o | X | o | o | o | o |
| 3 | M(S)F2 | o | X | o | o | o | o | o |
| 2 | M(S)F2 | o | X | o | o | o | o | o |

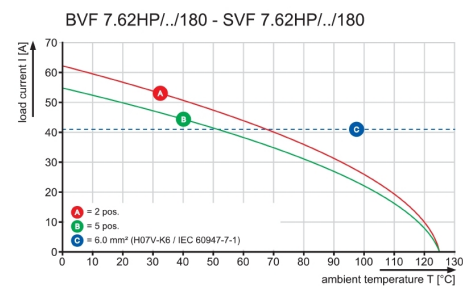
  

|                |                                  |                                                                                     |  |  |  |  |  |  |
|----------------|----------------------------------|-------------------------------------------------------------------------------------|--|--|--|--|--|--|
| NO OF<br>POLES | X = MIDDLE<br>FLANGE<br>POSITION | POS. 1 2 3 4 5                                                                      |  |  |  |  |  |  |
|                |                                  |  |  |  |  |  |  |  |

## Graph



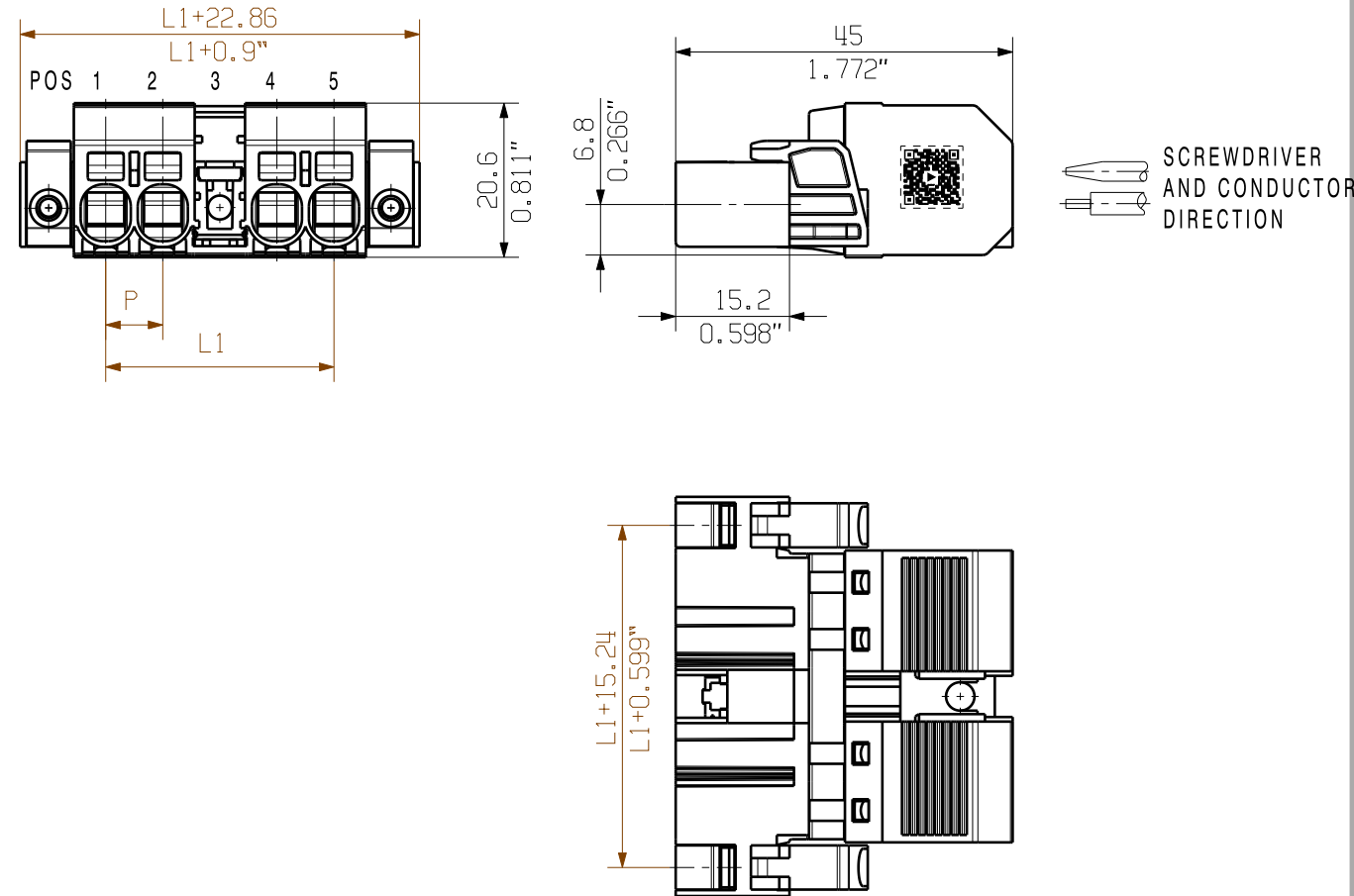
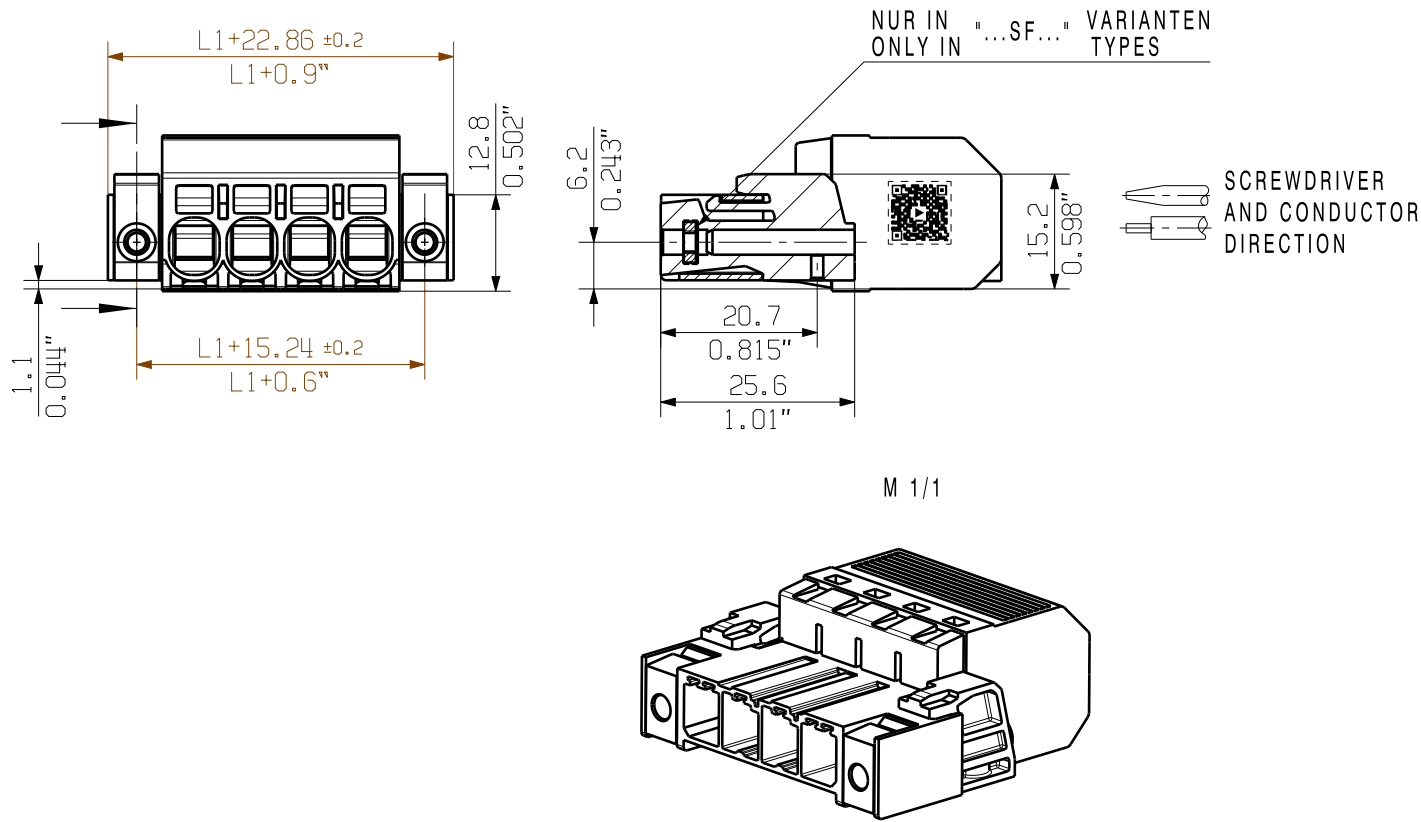
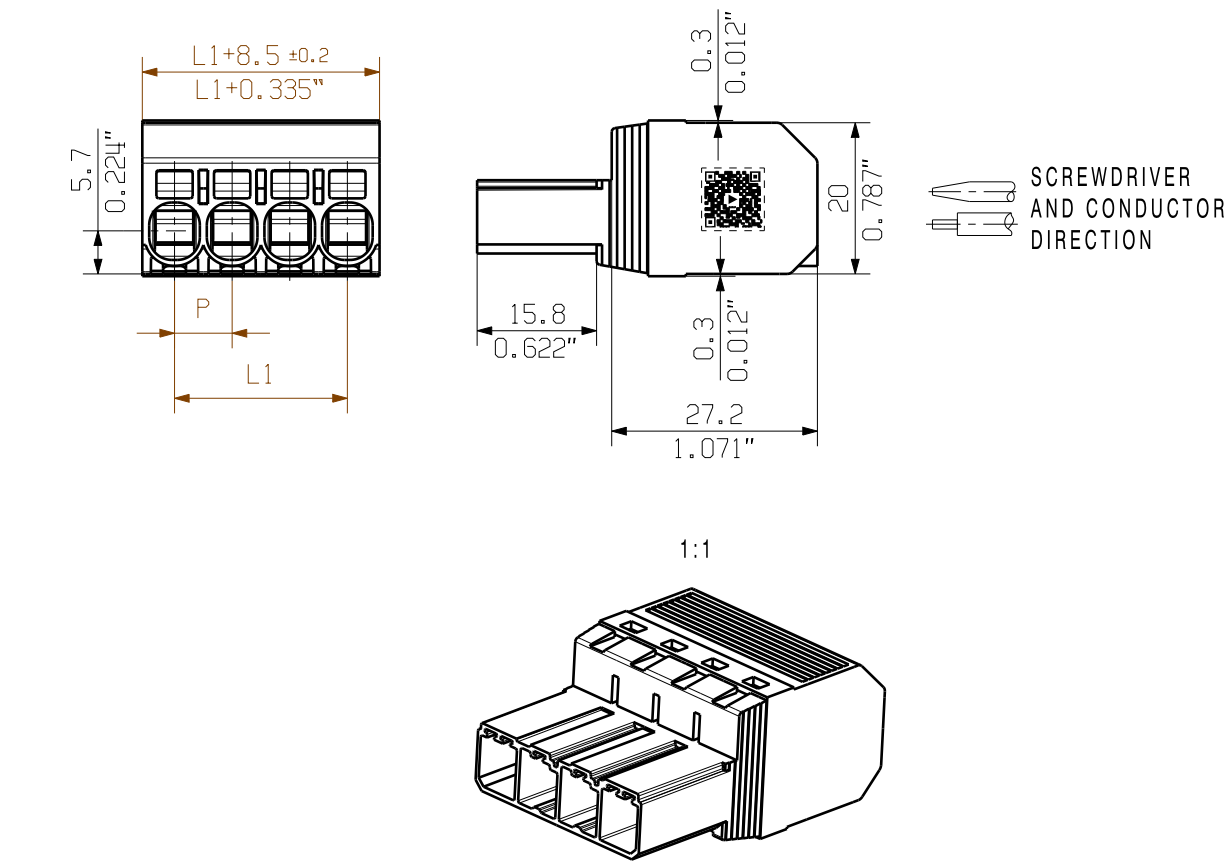
## Graph



SHOWN: SVF7.62HP/04/180

SHOWN: SVF7.62HP/04/180SF

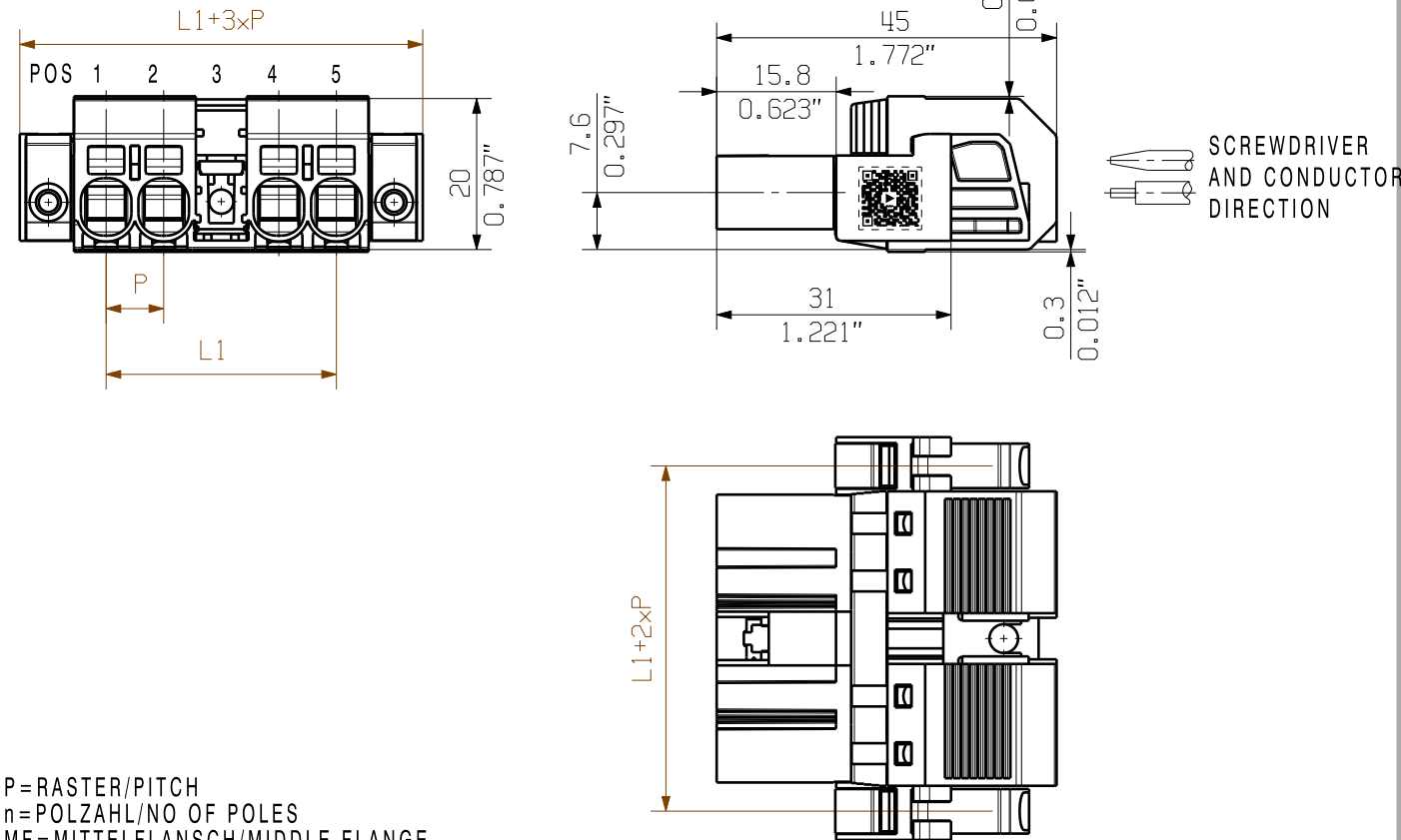
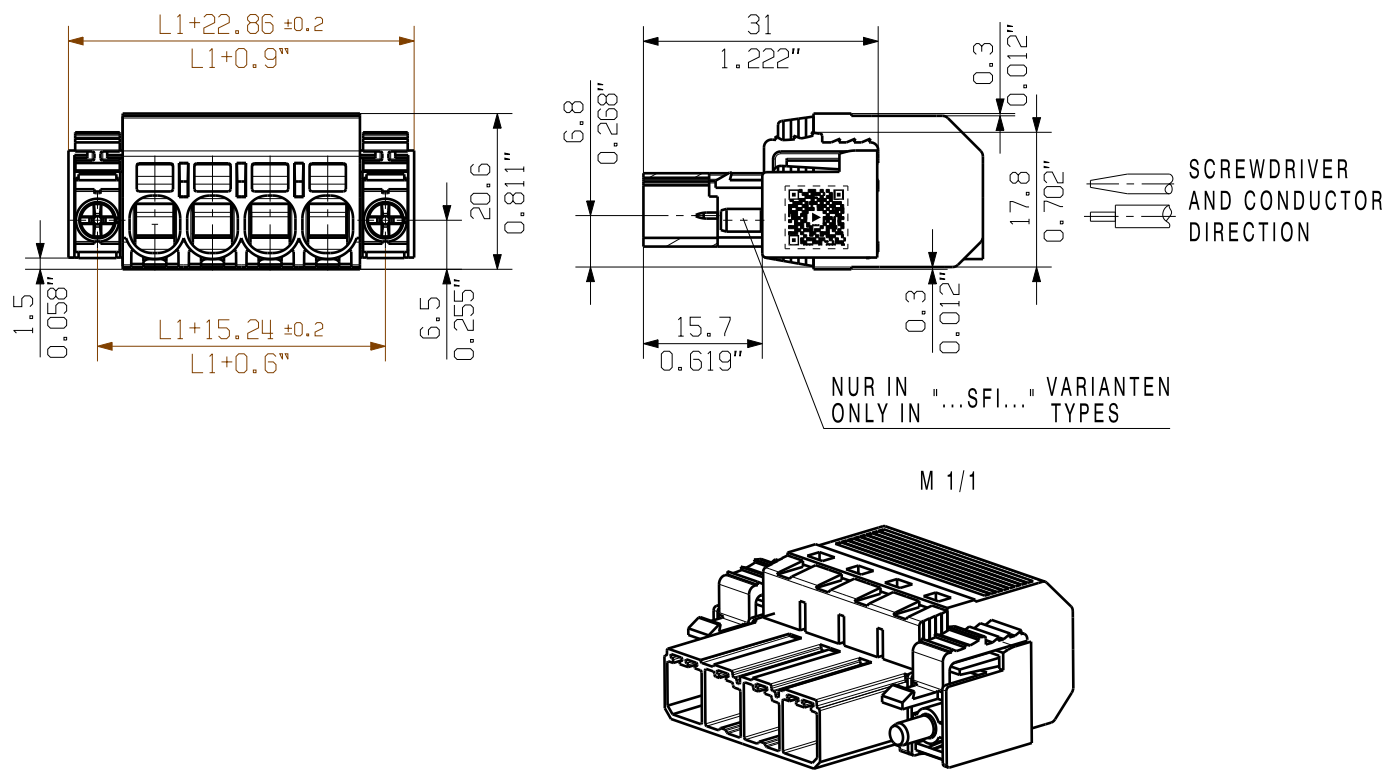
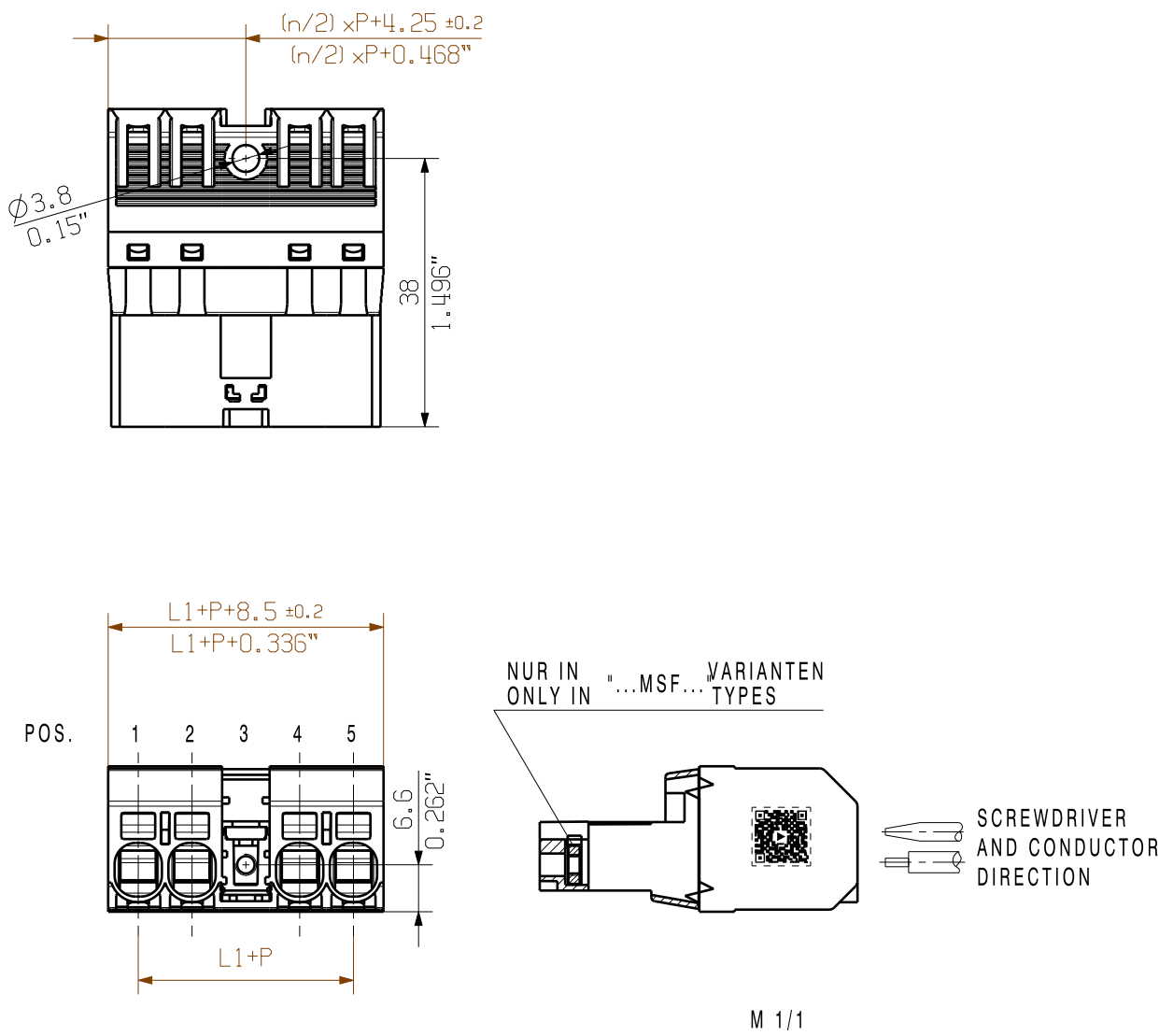
SHOWN: SVF7.62HP/04/180SFMF3



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

EC00000298

Modification

Date

Name

Drawn

28.05.2018

Administrator

Responsible

26.10.2018

Lang, Thomas

Approved

Scale: ...

Size: A2

Drawings Assembly

Prim PLM Part No.: 005075

Prim ERP Part No.: 1060920000

46102

Drawing no.

Sheet 01 of 01 sheets

SVF7.62HP/./180...

STIFTSTECKER

MALE PLUG

Product file: 7390 BVF/SVF 7.62HP

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) |

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.