

**SVF 7.62HP/02/180MF2 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Similar to illustration

180° inverted inverse voltage-safe male header with PUSH IN connection technology for field wiring. With automatically locking middle flange for field wiring in 6 mm<sup>2</sup> with 7.62 pitch.

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

On request, also available without middle flange.

**General ordering data**

|              |                                                                                                                               |
|--------------|-------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, male plug, 7.62 mm, Number of poles: 2, 180°, PUSH IN, Clamping range, max. : 10 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">1061020000</a>                                                                                                    |
| Type         | SVF 7.62HP/02/180MF2 SN BK BX                                                                                                 |
| GTIN (EAN)   | 4032248810727                                                                                                                 |
| Qty.         | 65 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                                                                                                                           |

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## Technical data

## Dimensions and weights

|            |         |
|------------|---------|
| Net weight | 10.97 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                              | 2                                       | L1 in mm                                   | 15.24 mm          |
| L1 in inches                                 | 0.6 inch                                | Number of rows                             | 1                 |
| Pin series quantity                          | 1                                       | Rated cross-section                        | 6 mm <sup>2</sup> |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch                  | Touch-safe protection acc. to DIN VDE 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            |
| 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> 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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|                     |                                                                                                                                                                        |                              |                             |       |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|-------|
| 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 |

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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 | 55 mm  |
| VPE width | 135 mm | VPE height | 350 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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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Approvals**

Approvals



ROHS Conform

UL File Number Search E60693

**Downloads**Approval/Certificate/Document of  
Conformity[Declaration of the Manufacturer](#)

Engineering Data

[STEP](#)

Engineering Data

[EPLAN, WSCAD](#)

User Documentation

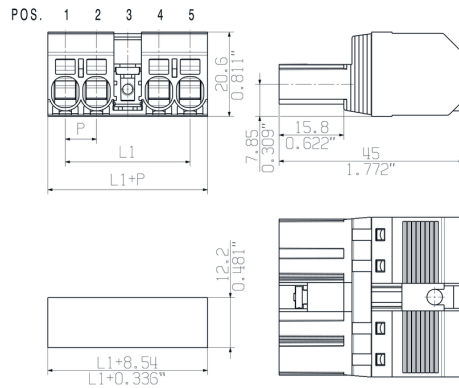
[QR-Code product handling video](#)

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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 POLES | X = MIDDLE FLANGE POSITION | <div> <div>POS. 1 2 3 4 5</div>  </div> |   |   |   |   |   |   |

## Graph



## Graph

