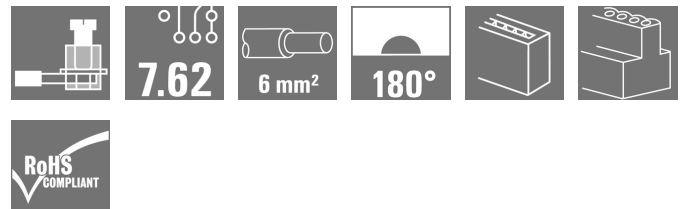


**BVZ 7.62HP/02/180 SN BK BX LRP**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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


Similar to illustration

High-performance female header with the proven, 100% maintenance-free Weidmüller steel clamping yoke. Side-by-side mounting without sacrificing any poles or with patented multifunction flange for secure, fast fixing without tools. Maximum operating reliability thanks to a mating profile that prevents incorrect connection, unique coding diversity, protection against faulty wiring, 4-point contact. Suitable for labelling.

**General ordering data**

|              |                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------|
| Version      | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 2, 180°, Clamping yoke connection, Clamping range, max.: 10 mm², Box |
| Order No.    | <a href="#">2577800000</a>                                                                                                         |
| Type         | BVZ 7.62HP/02/180 SN BK BX LRP                                                                                                     |
| GTIN (EAN)   | 4050118586831                                                                                                                      |
| Qty.         | 100 pc(s).                                                                                                                         |
| Product data | IEC: 1000 V / 57 A / 0.2 - 10 mm²<br>UL: 600 V / 40.5 A / AWG 24 - AWG 8                                                           |
| Packaging    | Box                                                                                                                                |

Creation date April 16, 2021 3:14:03 AM CEST

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**Technical data****Dimensions and weights**

|                |          |                 |            |
|----------------|----------|-----------------|------------|
| Depth          | 41.2 mm  | Depth (inches)  | 1.622 inch |
| Height         | 23.1 mm  | Height (inches) | 0.909 inch |
| Net weight     | 10.349 g | Width           | 15.24 mm   |
| Width (inches) | 0.6 inch |                 |            |

**System Parameters**

|                          |                                         |                            |                   |
|--------------------------|-----------------------------------------|----------------------------|-------------------|
| Product family           | OMNIMATE Power - series<br>BV/SV 7.62HP | Type of connection         | Field connection  |
| Wire connection method   | Clamping yoke connection                | 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                   | 7.62 mm           |
| L1 in inches             | 0.3 inch                                | Number of rows             | 1                 |
| Pin series quantity      | 1                                       | Rated cross-section        | 6 mm <sup>2</sup> |
| Tightening torque, min.  | 0.5 Nm                                  | Tightening torque, max.    | 0.6 Nm            |
| Clamping screw           | M 3                                     | Screwdriver blade          | 0.6 x 3.5         |
| Plugging cycles          | 25                                      | Plugging force/pole, max.  | 16.5 N            |
| Pulling force/pole, max. | 11 N                                    |                            |                   |

**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       | 6...8 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. | 100 °C             |                                       |        |

**Conductors suitable for connection**

|                                                                     |                         |
|---------------------------------------------------------------------|-------------------------|
| Clamping range, min.                                                | 0.2 mm <sup>2</sup>     |
| Clamping range, max.                                                | 10 mm <sup>2</sup>      |
| Wire connection cross section AWG, min.                             | AWG 24                  |
| Wire connection cross section AWG, max.                             | AWG 8                   |
| Solid, min. H05(07) V-U                                             | 0.2 mm <sup>2</sup>     |
| Solid, max. H05(07) V-U                                             | 6 mm <sup>2</sup>       |
| Flexible, min. H05(07) V-K                                          | 0.2 mm <sup>2</sup>     |
| Flexible, max. H05(07) V-K                                          | 10 mm <sup>2</sup>      |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 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, min.                           | 0.5 mm <sup>2</sup>     |
| w. wire end ferrule, DIN 46228 pt 1, max.                           | 6 mm <sup>2</sup>       |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.8 mm x 2.0 mm; 2.4 mm |

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## Technical data

|                                        |                                                                                                                                                                        |                              |                             |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|
| Clampable conductor                    | Cross-section for conductor connection                                                                                                                                 | Type                         | fine-wired                  |
|                                        |                                                                                                                                                                        | nominal                      | 0.5 mm <sup>2</sup>         |
| wire end ferrule                       |                                                                                                                                                                        | Stripping length             | nominal 14 mm               |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.5/18 OR</a>  |
| Cross-section for conductor connection |                                                                                                                                                                        | Type                         | fine-wired                  |
|                                        |                                                                                                                                                                        | nominal                      | 1 mm <sup>2</sup>           |
| wire end ferrule                       |                                                                                                                                                                        | Stripping length             | nominal 15 mm               |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H1.0/18 GE</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>     |
| Cross-section for conductor connection |                                                                                                                                                                        | Type                         | fine-wired                  |
|                                        |                                                                                                                                                                        | nominal                      | 0.75 mm <sup>2</sup>        |
| wire end ferrule                       |                                                                                                                                                                        | Stripping length             | nominal 14 mm               |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H0.75/18 W</a>  |
| Cross-section for conductor connection |                                                                                                                                                                        | Type                         | fine-wired                  |
|                                        |                                                                                                                                                                        | nominal                      | 2.5 mm <sup>2</sup>         |
| wire end ferrule                       |                                                                                                                                                                        | Stripping length             | nominal 14 mm               |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H2.5/19D BL</a> |
|                                        |                                                                                                                                                                        | Stripping length             | nominal 12 mm               |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H2.5/12</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 14 mm               |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H6.0/20 SW</a>  |
|                                        |                                                                                                                                                                        | Stripping length             | nominal 12 mm               |
|                                        |                                                                                                                                                                        | Recommended wire-end ferrule | <a href="#">H6.0/12</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. |                              |                             |

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## Technical data

## Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, min. number of poles  
( $T_u=40^{\circ}\text{C}$ )

41 A

Rated voltage for surge voltage class /  
pollution degree III/2

1,000 V

Rated impulse voltage for surge voltage  
class/ pollution degree II/2

6 kV

Rated impulse voltage for surge voltage  
class/ contamination degree III/3

8 kV

Rated current, min. number of poles  
( $T_u=20^{\circ}\text{C}$ )

57 A

Rated voltage for surge voltage class /  
pollution degree II/2

1,000 V

Rated voltage for surge voltage class /  
pollution degree III/3

800 V

Rated impulse voltage for surge voltage  
class/ pollution degree III/2

8 kV

Short-time withstand current resistance

3 x 1s with 420 A

## Rated data acc. to CSA

Rated voltage (Use group B / CSA)

600 V

Rated voltage (Use group D / CSA)

600 V

Rated current (Use group C / CSA)

40.5 A

Wire cross-section, AWG, min.

AWG 24

Rated voltage (Use group C / CSA)

600 V

Rated current (Use group B / CSA)

40.5 A

Rated current (Use group D / CSA)

5 A

Wire cross-section, AWG, max.

AWG 8

## Rated data acc. to UL 1059

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)

40.5 A

Wire cross-section, AWG, min.

AWG 24

Rated voltage (Use group C / UL 1059)

600 V

Rated current (Use group B / UL 1059)

40.5 A

Rated current (Use group D / UL 1059)

5 A

Wire cross-section, AWG, max.

AWG 8

## Packing

Packaging

Box

VPE length

338 mm

VPE width

130 mm

VPE height

44 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, type of  
material

Evaluation

available

Test

durability

Evaluation

passed

Test: Misengagement (Non-  
interchangeability)

Standard

DIN EN 61984 section 6.3 and 6.9.1 / 09.02,  
DIN IEC 512 part 7 section 5 / 05.94

Test

180° turned with coding elements

Evaluation

passed

Test

180° turned without coding elements

Evaluation

passed

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**Technical data**

|                                                           |                |                                                                                    |                              |
|-----------------------------------------------------------|----------------|------------------------------------------------------------------------------------|------------------------------|
| 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 / 12.02 |                              |
|                                                           | 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 10/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 10/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00                                                 |                              |
|                                                           | Requirement    | 0.2 kg                                                                             |                              |
|                                                           | Conductor type | Type of conductor and conductor cross-section                                      | AWG 24/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 24/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 0.3 kg                                                                             |                              |
|                                                           | 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> |
|                                                           | Evaluation     | passed                                                                             |                              |
|                                                           | Requirement    | 1.4 kg                                                                             |                              |
|                                                           | Conductor type | 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 10/1                     |
|                                                           |                | Type of conductor and conductor cross-section                                      | AWG 10/19                    |
|                                                           | Evaluation     | passed                                                                             |                              |

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## Technical data

|               |                |                                               |                              |
|---------------|----------------|-----------------------------------------------|------------------------------|
| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00            |                              |
|               | Requirement    | ≥10 N                                         |                              |
|               | Conductor type | Type of conductor and conductor cross-section | AWG 24/1                     |
|               |                | Type of conductor and conductor cross-section | AWG 24/19                    |
|               | Evaluation     | passed                                        |                              |
|               | Requirement    | ≥20 N                                         |                              |
|               | 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> |
|               | Evaluation     | passed                                        |                              |
|               | Requirement    | ≥80 N                                         |                              |
|               | Conductor type | 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 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 with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</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>• 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

|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

### Downloads

|                    |                                                |
|--------------------|------------------------------------------------|
| User Documentation | <a href="#">QR-Code product handling video</a> |
| Brochure/Catalogue | <a href="#">Catalogues in PDF-format</a>       |

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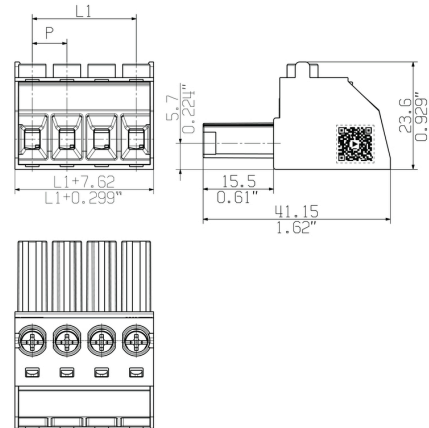
## Drawings

### Product image



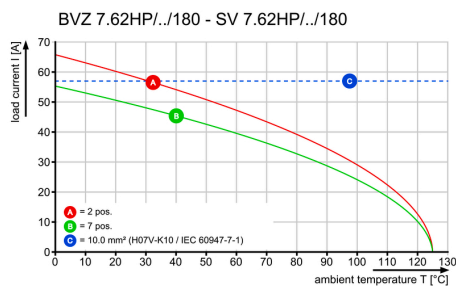
Similar to illustration

### Dimensional drawing



Similar to illustration

### Graph



### Graph

