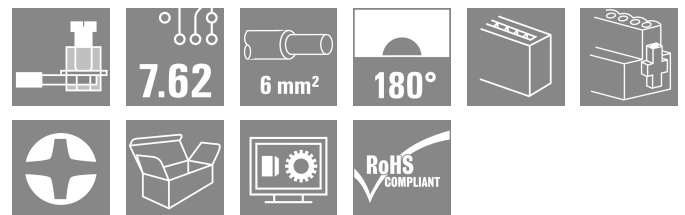


BVZ 7.62HP/04/180F SN DKGY BX SO
Weidmüller Interface GmbH & Co. KG

 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com


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: 4, 180°, Clamping yoke connection, Clamping range, max. : 10 mm ² , Box |
| Order No. | 1981720000 |
| Type | BVZ 7.62HP/04/180F SN DKGY BX SO |
| GTIN (EAN) | 4032248678181 |
| Qty. | 100 items |
| Product data | IEC: 1000 V / 57 A / 0.2 - 10 mm ² UL: 600 V / 40.5 A |
| Packaging | Box |

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Technical data

Approvals

Approvals



| | |
|-------------------------|----------------------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

Dimensions and weights

| | | | |
|------------|----------|-----------------|-------------|
| Depth | 42.1 mm | Depth (inches) | 1.6575 inch |
| Height | 23.1 mm | Height (inches) | 0.9094 inch |
| Width | 45.72 mm | Width (inches) | 1.8 inch |
| Net weight | 23.67 g | | |

Environmental Product Compliance

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

System Parameters

| | | | |
|---------------------------|---|----------------------------|-------------------|
| Product family | OMNIMATE Power - series 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) | 0.300 " | Conductor outlet direction | 180° |
| Number of poles | 4 | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 6 mm ² |
| Protection degree | IP20 | 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 | Basalt grey |
| Colour chart (similar) | RAL 7012 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 500 | Moisture Level (MSL) | |
| 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 ² |
| Clamping range, max. | 10 mm ² |
| 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 ² |
| Solid, max. H05(07) V-U | 6 mm ² |
| Flexible, min. H05(07) V-K | 0.2 mm ² |
| Flexible, max. H05(07) V-K | 10 mm ² |

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Technical data

w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm² min.

w. plastic collar ferrule, DIN 46228 pt 4, 6 mm² max.

w. wire end ferrule, DIN 46228 pt 1, 0.5 mm² min.

w. wire end ferrule, DIN 46228 pt 1, 6 mm² max.

Plug gauge in accordance with EN 60999 a x b; ø 2.8 mm x 2.0 mm; 2.4 mm

| | | | |
|--|--|------------|-----------------------------|
| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
| | | nominal | 0.5 mm ² |
| wire end ferrule | Stripping length | nominal | 14 mm |
| | Recommended wire-end ferrule | | H0.5/18 OR |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | | 1 mm ² |
| wire end ferrule | Stripping length | nominal | 15 mm |
| | Recommended wire-end ferrule | | H1.0/18 GE |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | | 1.5 mm ² |
| wire end ferrule | Stripping length | nominal | 15 mm |
| | Recommended wire-end ferrule | | H1.5/18D SW |
| | Stripping length | nominal | 12 mm |
| | Recommended wire-end ferrule | | H1.5/12 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | | 0.75 mm ² |
| wire end ferrule | Stripping length | nominal | 14 mm |
| | Recommended wire-end ferrule | | H0.75/18 W |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | | 2.5 mm ² |
| wire end ferrule | Stripping length | nominal | 14 mm |
| | Recommended wire-end ferrule | | H2.5/19D BL |
| | Stripping length | nominal | 12 mm |
| | Recommended wire-end ferrule | | H2.5/12 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | | 4 mm ² |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | Recommended wire-end ferrule | | H4.0/12 |
| | Stripping length | nominal | 14 mm |
| | Recommended wire-end ferrule | | H4.0/20D GR |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | | 6 mm ² |
| wire end ferrule | Stripping length | nominal | 14 mm |
| | Recommended wire-end ferrule | | H6.0/20 SW |
| | Stripping length | nominal | 12 mm |
| | Recommended wire-end ferrule | | H6.0/12 |

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 (Tu=20°C) | 57 A |
| Rated current, max. number of poles (Tu=20°C) | 54 A | Rated current, min. number of poles (Tu=40°C) | 51 A |
| Rated current, max. number of poles (Tu=40°C) | 41 A | Rated voltage for surge voltage class / pollution degree II/2 | 1000 V |
| Rated voltage for surge voltage class / pollution degree III/2 | 1000 V | Rated voltage for surge voltage class / pollution degree III/3 | 800 V |
| Rated impulse voltage for surge voltage class/ pollution degree II/2 | 6000 V | 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 |
| Creepage distance, min. | 13.8 mm | Clearance, min. | 10.2 mm |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--------|-----------------------------------|--------|
| Rated voltage (Use group B / CSA) | 600 V | Rated voltage (Use group C / CSA) | 600 V |
| Rated voltage (Use group D / CSA) | 600 V | Rated current (Use group B / CSA) | 40.5 A |
| Rated current (Use group C / CSA) | 40.5 A | Rated current (Use group D / CSA) | 5 A |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 8 |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|--------|---------------------------------------|--------|
| Institute (cURus) | CURUS | Certificate No. (cURus) | E60693 |
| Rated voltage (Use group B / UL 1059) | 600 V | Rated voltage (Use group C / UL 1059) | 600 V |
| Rated voltage (Use group D / UL 1059) | 600 V | Rated voltage (Use group F / UL 1059) | 1000 V |
| Rated current (Use group B / UL 1059) | 40.5 A | Rated current (Use group C / UL 1059) | 40.5 A |
| Rated current (Use group F / UL 1059) | 40.5 A | Wire cross-section, AWG, max. | AWG 8 |

Reference to approval values
 Specifications are maximum values, details - see approval certificate.

Packing

| | | | |
|-----------|-----------|------------|-----------|
| Packaging | Box | VPE length | 351.00 mm |
| VPE width | 131.00 mm | VPE height | 187.00 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 |
| 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 ² |

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| | | | |
|---|----------------|---|------------------------------|
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² |
| | | Type of conductor and conductor cross-section | solid 6 mm ² |
| | | Type of conductor and conductor cross-section | stranded 6 mm ² |
| | | 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 | |
| | 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 ² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² |
| | Evaluation | passed | |
| | Requirement | 1.4 kg | |
| | Conductor type | Type of conductor and conductor cross-section | solid 6 mm ² |
| | | Type of conductor and conductor cross-section | stranded 6 mm ² |
| | | Type of conductor and conductor cross-section | AWG 10/1 |
| | | Type of conductor and conductor cross-section | AWG 10/19 |
| | Evaluation | passed | |
| | 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 | |
| Test for damage to and accidental loosening of conductors | | | |
| Pull-out test | | | |

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Technical data

| | | |
|----------------|---|------------------------------|
| Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm ² |
| | Type of conductor and conductor cross-section | stranded 0.5 mm ² |
| Evaluation | passed | |
| Requirement | ≥80 N | |
| Conductor type | Type of conductor and conductor cross-section | solid 6 mm ² |
| | Type of conductor and conductor cross-section | stranded 6 mm ² |
| | Type of conductor and conductor cross-section | AWG 10/1 |
| | Type of conductor and conductor cross-section | AWG 10/19 |
| Evaluation | passed | |

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.

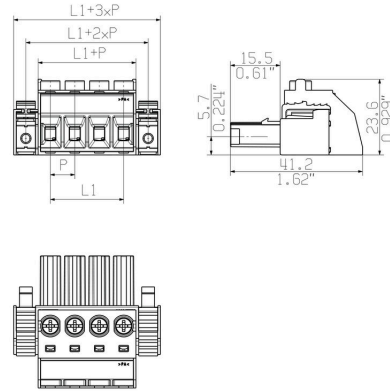
- Notes**
- Additional variants on request
 - Rated current related to rated cross-section & min. No. of poles.
 - Wire end ferrule with plastic collar to DIN 46228/4
 - Wire end ferrule without plastic collar to DIN 46228/1
 - P on drawing = pitch
 - Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.
 - In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
 - Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002638 | ETIM 9.0 | EC002638 |
| ETIM 10.0 | EC002638 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 | | |

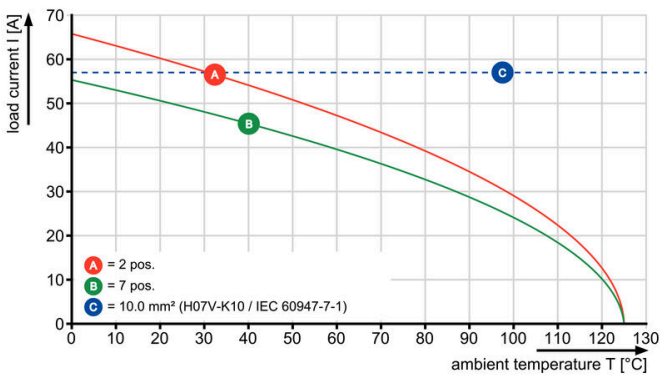
Drawings

Dimensional drawing



Graph

BVZ 7.62HP/..180 - SV 7.62HP/..180



Graph

BVZ 7.62HP/..180 - SVZ 7.62HP/..180

