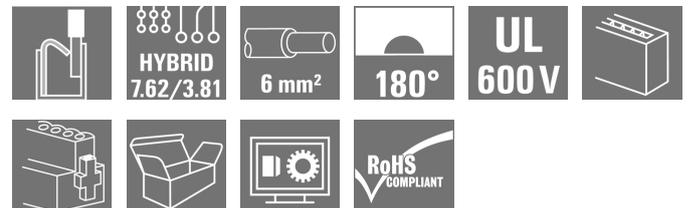


BVFL 7.62HP/04/180MSF4 BCF/04R SN BK BX

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Product image


180° female plug with energy and signal contacts in PUSH IN wire connection in 7.62 pitch. Fulfils the IEC 61800-5-1 requirement and for the energy contact UL 1059 ClassC 600 V. With adjustable, self-locking pusher for opening the contact point.

The self-locking middle flange with automatic interlock reduces the space requirements by one pitch width in comparison with conventional solutions. Optionally also available with additional mounting screw.

General ordering data

| | |
|--------------|--|
| Version | PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN, Clamping range, max. : 6 mm ² , Box |
| Order No. | 1547600000 |
| Type | BVFL 7.62HP/04/180MSF4 BCF/04R SN BK BX |
| GTIN (EAN) | 4050118353426 |
| Qty. | 42 pc(s). |
| Product data | IEC: 1000 V / 38 A / 0.5 - 6 mm ² UL: 600 V / 35 A / AWG 24 - AWG 8 |
| Packaging | Box |

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Technical data
Dimensions and weights

| | |
|------------|---------|
| Net weight | 19.19 g |
|------------|---------|

System Parameters

| | | | |
|---|---|---|------------------------|
| Product family | OMNIMATE Power - series 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 | 4 | L1 in mm | 30.48 mm |
| L1 in inches | 1.2 inch | Pin series quantity | 1 |
| Rated cross-section | 6 mm ² | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20 | 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 | 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. | 125 °C | | |

Conductors suitable for connection

| | |
|--|---------------------|
| Clamping range, min. | 0.5 mm ² |
| Clamping range, max. | 6 mm ² |
| Solid, min. H05(07) V-U | 0.5 mm ² |
| Solid, max. H05(07) V-U | 6 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 6 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.5 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 6 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, 0.5 mm ² min. | |
| w. wire end ferrule, DIN 46228 pt 1, 6 mm ² max. | |

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Technical data

| | | | |
|---------------------|--|------------------------------|-----------------------------|
| 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 |
| Clampable conductor | 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 |
| Clampable conductor | 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 |
| Clampable conductor | 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 |
| Clampable conductor | 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 |
| Clampable conductor | 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 |
| Clampable conductor | 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) | 38 A |
| Rated current, max. number of poles (Tu=20°C) | 38 A | Rated current, min. number of poles (Tu=40°C) | 34 A |
| Rated current, max. number of poles (Tu=40°C) | 34 A | Rated voltage for surge voltage class / pollution degree II/2 | 1,000 V |
| Rated voltage for surge voltage class / pollution degree III/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 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 |

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 C / UL 1059) | 600 V |
| Rated voltage (Use group D / UL 1059) | 600 V | Rated current (Use group B / UL 1059) | 35 A |
| Rated current (Use group C / UL 1059) | 35 A | Rated current (Use group D / UL 1059) | 5 A |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 8 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|-----|------------|-----|
| Packaging | Box | VPE length | 0 m |
| VPE width | 0 m | VPE height | 0 m |

Technical data - hybrid

| | | |
|---------------------------|------------------|-----------|
| Stripping length (hybrid) | Hybrid component | Signal |
| | nominal | 8 mm |
| stripping length (Signal) | 8 mm | |
| Pitch in mm (hybrid) | Hybrid component | Signal |
| | nominal | 3.81 mm |
| Pitch in mm (Signal) | 3.81 mm | |
| Pitch in inch (hybrid) | nominal | 0.15 inch |
| | Hybrid component | Signal |
| Pitch in inches (Signal) | 0.15 inch | |
| Pole count (hybrid) | nominal | 4 |
| | Hybrid component | Signal |
| Number of poles (Signal) | 4 | |
| L2 in mm | 3.81 mm | |
| L2 in inch | 0.15 inch | |
| Number of rows (hybrid) | Hybrid component | Signal |
| | Number of rows | 2 |
| Number of rows (Signal) | 2 | |
| Contact material (hybrid) | Hybrid component | Signal |
| | Contact material | CuMg |
| Contact material (Signal) | CuMg | |

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Technical data

| | | | |
|---|---|------------------|--------------|
| Contact surface (hybrid) | Hybrid component | Signal | |
| | Contact surface | tinned | |
| Contact surface (Signal) | tinned | | |
| Layer structure of the plug contact (hybrid) | Layer structure of the plug contact | Layer strength | min. 1 μ |
| | | | max. 3 μ |
| | | Material | Ni |
| | | Layer strength | min. 4 μ |
| | | | max. 8 μ |
| | Material | Sn | |
| | Hybrid component | Signal | |
| Layer structure of the plug contact (Signal) | 1-3 μ Ni / 4-8 μ Sn | | |
| Rated impulse voltage for overvoltage class / pollution severity level II/2 (hybrid) | Hybrid component | Signal | |
| | nominal | 400 V | |
| Rated voltage for overvoltage class / pollution severity level II/2 (Signal) | 400 V | | |
| Rated impulse voltage for overvoltage class / pollution severity level III/2 (hybrid) | Hybrid component | Signal | |
| | nominal | 320 V | |
| Rated voltage for overvoltage class / pollution severity level III/2 (Signal) | 320 V | | |
| Rated impulse voltage for overvoltage class / pollution severity level III/3 (hybrid) | Hybrid component | Signal | |
| | nominal | 200 V | |
| Rated voltage for overvoltage class / pollution severity level III/3 (Signal) | 200 V | | |
| Rated impulse voltage for overvoltage class / pollution severity level II/2 (hybrid) | Hybrid component | Signal | |
| | nominal | 4 kV | |
| Rated impulse voltage for overvoltage class / pollution severity level II/2 (Signal) | 4 kV | | |
| Rated impulse voltage for overvoltage class / pollution severity level III/2 (hybrid) | Hybrid component | Signal | |
| | nominal | 4 kV | |
| Rated impulse voltage for overvoltage class / pollution severity level III/2 (Signal) | 4 kV | | |
| Rated impulse voltage for overvoltage class / pollution severity level III/3 (hybrid) | Hybrid component | Signal | |
| | nominal | 4 kV | |
| Rated impulse voltage for overvoltage class / pollution severity level III/3 (Signal) | 4 kV | | |
| Short-time withstand current capacity (hybrid) | Short-time withstand current resistance | 3 x 1s with 80 A | |
| | Hybrid component | Signal | |
| Short-time withstand current resistance (Signal) | 3 x 1s with 80 A | | |
| Creepage distance (hybrid) | Hybrid component | Signal | |
| | min. | 4.38 mm | |
| Clearance distance (hybrid) | Hybrid component | Signal | |
| | min. | 3.6 mm | |
| Rated voltage (Use group B / CSA) (Hybrid) | Hybrid component | Signal | |
| | nominal | 300 V | |
| Rated voltage (Use group B / CSA) (Signal) | 300 V | | |
| Rated voltage (Use group C / CSA) (Hybrid) | Hybrid component | Signal | |
| | nominal | 50 V | |
| Rated voltage (Use group C / CSA) (Signal) | 50 V | | |

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Technical data

| | | |
|---|-------------------------------|--------|
| Rated voltage (Use group D / CSA) (Hybrid) | Hybrid component | Signal |
| | nominal | 300 V |
| Rated voltage (Use group D / CSA) (Signal) | 300 V | |
| Rated current (Use group B / CSA) (Hybrid) | Hybrid component | Signal |
| | nominal | 9 A |
| Rated current (Use group B / CSA) (Signal) | 9 A | |
| Rated current (Use group C / CSA) (Hybrid) | Hybrid component | Signal |
| | nominal | 9 A |
| Rated current (Use group C / CSA) (Signal) | 9 A | |
| Rated current (Use group D / CSA) (Hybrid) | Hybrid component | Signal |
| | nominal | 9 A |
| Rated current (Use group D / CSA) (Signal) | 9 A | |
| Cross-section for conductor connection AWG | Hybrid component | Signal |
| | Wire cross-section, AWG, min. | AWG 26 |
| | Wire cross-section, AWG, max. | AWG 16 |
| Wire connection cross-section AWG (Signal) | AWG 26...AWG 16 | |
| Rated voltage (Use group B / UL 1059) (Hybrid) | Hybrid component | Signal |
| | nominal | 300 V |
| Rated voltage (Use group B / UL 1059) (Signal) | 300 V | |
| Rated voltage (Use group C / UL 1059) (Hybrid) | Hybrid component | Signal |
| | nominal | 50 V |
| Rated voltage (Use group C / UL 1059) (Signal) | 50 V | |
| Rated voltage (Use group D / UL 1059) (Hybrid) | Hybrid component | Signal |
| | nominal | 300 V |
| Rated voltage (Use group D / UL 1059) (Signal) | 300 V | |
| Rated current (Use group B / UL 1059) (Hybrid) | Hybrid component | Signal |
| | nominal | 5 A |
| Rated current (Use group B / UL 1059) (Signal) | 5 A | |
| Rated current (Use group C / UL 1059) (Hybrid) | Hybrid component | Signal |
| | nominal | 5 A |
| Rated current (Use group C / UL 1059) (Signal) | 5 A | |
| Rated current (Use group D / UL 1059) (Hybrid) | Hybrid component | Signal |
| | nominal | 5 A |
| Rated current (Use group D / UL 1059) (Signal) | 5 A | |
| Cross-section for conductor connection AWG | Hybrid component | Signal |
| | Wire cross-section, AWG, min. | AWG 26 |
| | Wire cross-section, AWG, max. | AWG 16 |
| Connector cross-section (Signal) | AWG 26...AWG 16 | |

Conductors that can be connected - Hybrid

| | | |
|--|------------------|---------------------|
| Clamping range, rated connection (hybrid) | Hybrid component | Power |
| | min. | 0.5 mm ² |
| | max. | 10 mm ² |
| | Hybrid component | Signal |
| | min. | 0.2 mm ² |
| | max. | 1.5 mm ² |

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| | | |
|---|---|----------------------|
| Clamping range, rated connection (Power) | 0.5... 10 mm ² | |
| Clamping range, rated connection (Signal) | 0.2... 1.5 mm ² | |
| Cross-section for conductor connection AWG (hybrid) | Hybrid component | Power |
| | Wire connection cross section AWG, min. | AWG 24 |
| | Wire connection cross section AWG, max. | AWG 8 |
| | Hybrid component | Signal |
| | Wire connection cross section AWG, min. | AWG 26 |
| | Wire connection cross section AWG, max. | AWG 16 |
| Connector cross-section (Power) | AWG 24...AWG 8 | |
| Connector cross-section AWG (Signal) | AWG 26...AWG 16 | |
| solid, H05(07) V-U (hybrid) | Hybrid component | Power |
| | max. | 10 mm ² |
| | min. | 0.5 mm ² |
| | Hybrid component | Signal |
| | max. | 1.5 mm ² |
| | min. | 0.14 mm ² |
| solid, H05(07) V-U (Power) | 0.5... 10 mm ² | |
| solid, H05(07) V-U (Signal) | 0.14... 1.5 mm ² | |
| flexible, H05(07) V-K (hybrid) | Hybrid component | Power |
| | min. | 0.5 mm ² |
| | max. | 6 mm ² |
| | Hybrid component | Signal |
| | min. | 0.14 mm ² |
| | max. | 1.5 mm ² |
| flexible, H05(07) V-K (Power) | 0.5...6 mm ² | |
| flexible, H05(07) V-K (Signal) | 0.14... 1.5 mm ² | |
| with wire-end ferrule with collar, DIN 46 228/4 (hybrid) | Hybrid component | Power |
| | min. | 0.5 mm ² |
| | max. | 6 mm ² |
| | Hybrid component | Signal |
| | min. | 0.25 mm ² |
| | max. | 1.5 mm ² |
| with wire-end ferrule with collar (Power) | 0.5... 6 mm ² | |
| with wire-end ferrule with collar, DIN 46 228/4 (Signal) | 0.25... 1.5 mm ² | |
| with wire-end ferrule, according to DIN 46 228/1 (hybrid) | min. | 0.5 mm ² |
| | max. | 6 mm ² |
| | Hybrid component | Power |
| | min. | 0.25 mm ² |
| | max. | 1.5 mm ² |
| | Hybrid component | Signal |
| with wire-end ferrule according to DIN 46 228/1 (Power) | 0.5... 6 mm ² | |
| with wire-end ferrule according to DIN 46 228/1 (Signal) | 0.25... 1.5 mm ² | |

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 |

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Technical data
Important note

| | |
|----------------|---|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request. |
| Notes | <ul style="list-style-type: none"> • Technical specifications refer to the power contacts • Technical data of signal contacts: 50V / 5A, stripping length 8mm • Additional colours 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 • 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. • Additional pole combinations on request • MFX and MSFX: X= Position of the middle flange e.g. MF2, MSF3 • Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months |

Approvals

Approvals



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

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Engineering Data | EPLAN, WSCAD |
| Product Change Notification | EN - Change of isolation material DE - Werkstoffänderung Pusher |
| User Documentation | Operating Instruction BVFL hybrid QR-Code product handling video |

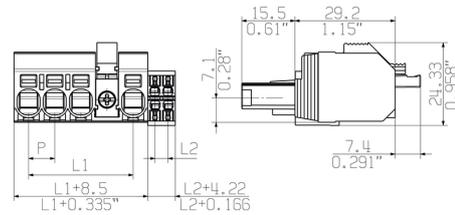
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Drawings

Dimensional drawing



Graph

