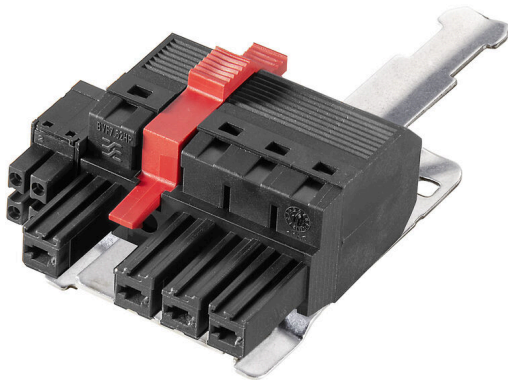


**BVF 7.62HP/4/180MF4 BCF/4 SNBKBX SH180**

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

www.weidmueller.com



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 Class C 600 V. 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. Including pre-assembled pluggable shield connection for large area shielding in your application.

Directly during the plug-in process itself, the shield connection is attached vibration-proof to the contact area of the metal housing.

**General ordering data**

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 4, 180°, PUSH IN with actuator, PUSH IN without actuator, Clamping range, max.: 10 mm <sup>2</sup> , Box
Order No.	<a href="#">2681760000</a>
Type	BVF 7.62HP/4/180MF4 BCF/4 SNBKBX SH180
GTIN (EAN)	4050118691412
Qty.	20 items
Product data	IEC: 800 V / 38 A / 0.5 - 10 mm <sup>2</sup> UL: / AWG 24 - AWG 8
Packaging	Box

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**Technical data**
**Approvals**

ROHS	Conform
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**Dimensions and weights**

Net weight	45 g
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**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	PUSH IN with actuator, PUSH IN without actuator	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.300 "	Conductor outlet direction	180°
Number of poles	4	L1 in mm	30.48 mm
L1 in inches	1.200 "	L2 in mm	3.81 mm
L2 in inch	0.150 "	Number of rows	1
Pin series quantity	1	Rated cross-section	6 mm <sup>2</sup>
Touch-safe protection acc. to DIN VDE 0470	IP 20	Stripping length	12 mm
Screwdriver blade	0.6 x 3.5	Plugging cycles	25
Plugging force/pole, max.	17 N	Pulling force/pole, max.	15 N

**Material data**

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-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 <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	10 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, min.	1.5 mm <sup>2</sup>		
w. wire end ferrule, DIN 46228 pt 1, max.	10 mm <sup>2</sup>		
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm <sup>2</sup>

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**Technical data**

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>
Cross-section for conductor connection	Type	fine-wired
	nominal	10 mm <sup>2</sup>
wire end ferrule	Stripping length	nominal 12 mm
	Recommended wire-end ferrule	<a href="#">H10,0/12</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.

**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

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### Technical data

Rated current, max. number of poles (Tu=40°C)	34 A	Rated voltage for surge voltage class / pollution degree II/2	800 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	630 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	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Short-time withstand current resistance	3 x 1s with 420 A
Creepage distance, min.	12.7 mm	Clearance, min.	10.4 mm

### Rated data acc. to UL 1059

Rated voltage (Use group F / UL 1059)	600 V	Rated current (Use group F / UL 1059)	33 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 8

### Packing

Packaging	Box	VPE length	354.00 mm
VPE width	139.00 mm	VPE height	63.00 mm

### Technical data - hybrid

Pitch in mm (Signal)	3.81 mm	Pitch in inches (Signal)	0.15 inch
Number of poles (Signal)	4	L2 in mm	3.81 mm
L2 in inch	0.150 "	Number of rows (Signal)	2
Contact material (Signal)	CuMg	Contact surface (Signal)	tinned
Layer structure of the plug contact (Signal)	1-3 μ Ni / 4-8 μ Sn	Rated voltage for overvoltage class/ pollution severity level II/2 (Signal)	250 V
Rated voltage for overvoltage class/ pollution severity level III/2 (Signal)	150 V	Rated voltage for overvoltage class/ pollution severity level III/3 (Signal)	63 V
Rated impulse voltage for overvoltage class/pollution severity level II/2 (Signal)	2.5 kV	Rated impulse voltage for overvoltage class/pollution severity level III/2 (Signal)	2.5 kV
Rated impulse voltage for overvoltage class/pollution severity level III/3 (Signal)	2.5 kV	Short-time withstand current resistance (Signal)	3 x 1s with 80 A
Connector cross-section (Signal)	AWG 26...AWG 16		

### Conductors that can be connected - Hybrid

Clamping range, rated connection (Power)	0.5... 10 mm <sup>2</sup>	Clamping range, rated connection (Signal)	0.2... 1.5 mm <sup>2</sup>
Connector cross-section (Power)	AWG 24...AWG 8	Connector cross-section AWG (Signal)	AWG 26...AWG 16
solid, H05(07) V-U (Power)	0.5... 10 mm <sup>2</sup>	solid, H05(07) V-U (Signal)	0.14... 1.5 mm <sup>2</sup>
flexible, H05(07) V-K (Power)	0.5...6 mm <sup>2</sup>	flexible, H05(07) V-K (Signal)	0.14... 1.5 mm <sup>2</sup>
with wire-end ferrule with collar (Power)	0.5...6 mm <sup>2</sup>	with wire-end ferrule with collar, DIN 46 228/4 (Signal)	0.25... 1.5 mm <sup>2</sup>
with wire-end ferrule according to DIN 46 228/1 (Power)	0.5...6 mm <sup>2</sup>	with wire-end ferrule according to DIN 46 228/1 (Signal)	0.25... 1.5 mm <sup>2</sup>

### 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

- Technical specifications refer to the power contacts
- Technical data of signal contacts: 50V / 5A, stripping length 8mm
- 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

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## Technical data

- 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.
- 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	27-46-03-02
ECLASS 15.0	27-46-03-02		

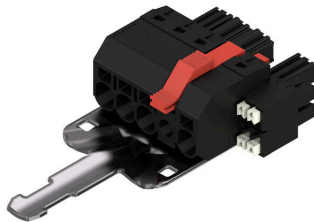
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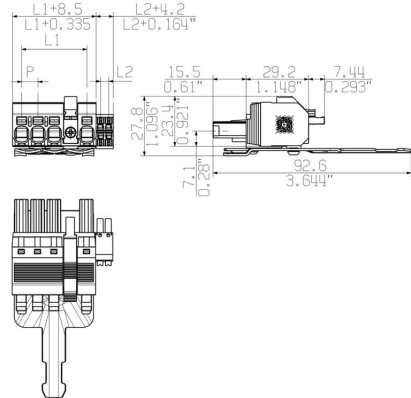
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Drawings

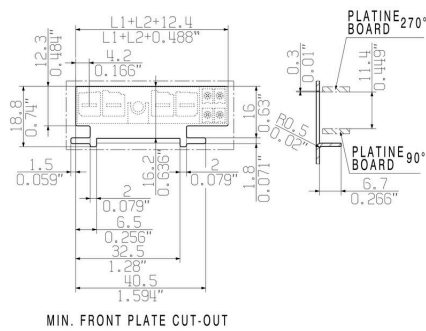
Product image



Dimensional drawing



Graph



Graph

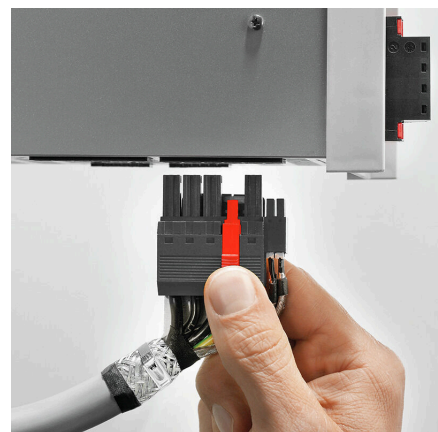


Product benefits



one connector for: Power, Signal (data) and Shielding

Product benefits



Single-handed operation Automatic latching