

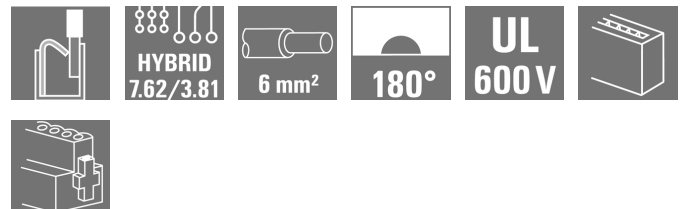
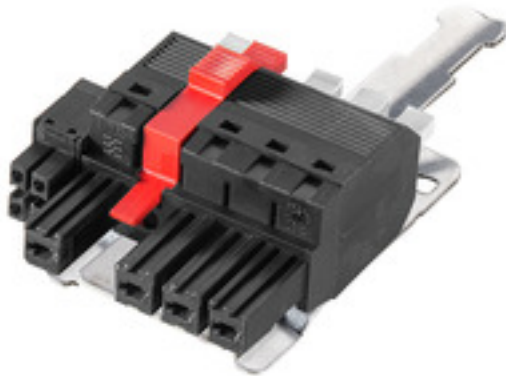
BVF 7.62HP/04/180MF4 BCF/04R SN BK BX SO
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image


Similar to illustration

180° female plug with energy and signal contacts in PUSH IN wire connection in 7.62 pitch.
Fulfills the IEC 61800-5-1 requirement and for the energy contact UL 1059 ClassC 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, Clamping range, max. : 10 mm², Box
Order No.	2010930000
Type	BVF 7.62HP/04/180MF4 BCF/04R SN BK BX SO
GTIN (EAN)	4050118398038
Qty.	20 pc(s).
Product data	IEC: 1000 V / 38 A / 0.5 - 10 mm² UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Box

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Technical data**Dimensions and weights**

Net weight	48.65 g
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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
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	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 500	UL 94 flammability rating	V-0
Contact material	Copper alloy	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.	10 mm ²
Solid, min. H05(07) V-U	0.5 mm ²
Solid, max. H05(07) V-U	10 mm ²
Stranded, max. H07V-R	10 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	10 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm ² min.	
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm ² max.	
w. wire end ferrule, DIN 46228 pt 1, 1.5 mm ² min.	
w. wire end ferrule, DIN 46228 pt 1, 10 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
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
Cross-section for conductor connection		Type	fine-wired
		nominal	10 mm ²
wire end ferrule		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	H10.0/12
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 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)	33 A
Rated current (Use group C / CSA)	33 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)



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	45 mm
VPE width	145 mm	VPE height	340 mm

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	

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Technical data

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	
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
Layer structure of the plug contact (Signal)	1-3 μ Ni / 4-8 μ Sn	min. 4 μ
		max. 8 μ
		Material
		Sn
		Hybrid component
		Signal
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

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Technical data

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	
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	

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Technical data**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
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	

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Technical data**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	• 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. • 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



UL File Number Search E60693

Downloads

User Documentation [Operating Instruction BVF hybrid](#)
[QR-Code product handling video](#)

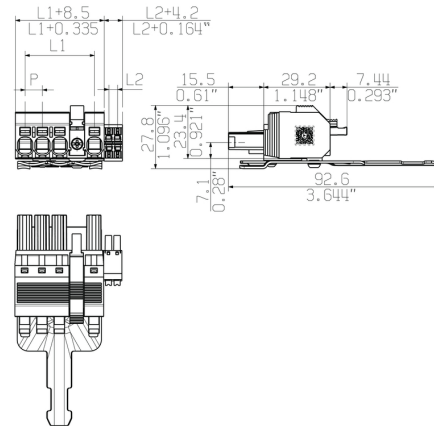
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Drawings

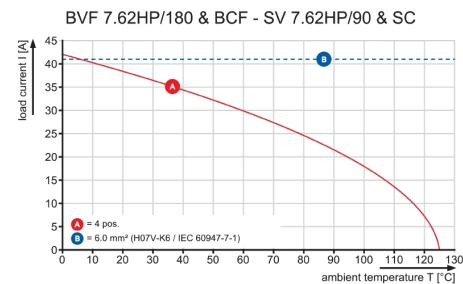
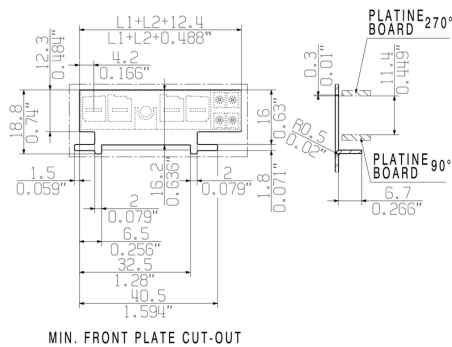
Dimensional drawing



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