

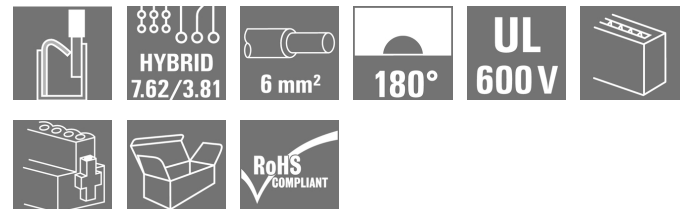
BVFL 7.62HP/02/180MSF2 BCF/04R SN BK BX
Weidmüller Interface GmbH & Co. KG

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: 2, 180°, PUSH IN, Clamping range, max. : 6 mm², Box
Order No.	2549330000
Type	BVFL 7.62HP/02/180MSF2 BCF/04R SN BK BX
GTIN (EAN)	4050118558760
Qty.	60 pc(s).
Product data	IEC: 1000 V / 38 A / 0.5 - 6 mm² UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Box

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Technical data**Dimensions and weights**

Net weight	18.67 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	2	L1 in mm	15.24 mm
L1 in inches	0.6 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, min.	0.5 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm ²

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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
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	350 mm
VPE width	135 mm	VPE height	47 mm

Technical data - hybrid

Stripping length (hybrid)	nominal	8 mm
	Hybrid component	Signal
stripping length (Signal)	8 mm	
Pitch in mm (hybrid)	nominal	3.81 mm
	Hybrid component	Signal
Pitch in mm (Signal)	3.81 mm	
Pitch in inch (hybrid)	Hybrid component	Signal
	nominal	0.15 inch
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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Catalogue status 12.03.2021 / We reserve the right to make technical changes.

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

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)	min.	0.5 mm ²
	Hybrid component	Power
	max.	10 mm ²
	min.	0.14 mm ²
	Hybrid component	Signal
	max.	1.5 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
	max.	6 mm ²
	min.	0.5 mm ²
	Hybrid component	Signal
	max.	1.5 mm ²
	min.	0.14 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)	max.	6 mm ²
	min.	0.5 mm ²
	Hybrid component	Power
	max.	1.5 mm ²
	min.	0.25 mm ²
	Hybrid component	Signal
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)	max.	6 mm ²
	Hybrid component	Power
	min.	0.5 mm ²
	max.	1.5 mm ²
	Hybrid component	Signal
	min.	0.25 mm ²
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	• 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

Product Change Notification	EN - Change of isolation material DE - Werkstoffänderung Pusher
User Documentation	Operating Instruction BVFL hybrid QR-Code product handling video

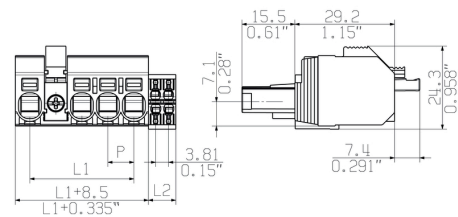
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Drawings

Dimensional drawing



Graph

