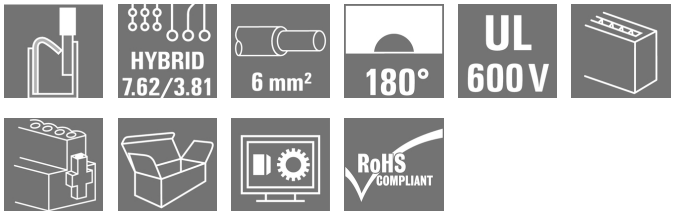
BVF 7.62HP/02/180MSF2 BCF/04R SN BK BX

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

www.weidmueller.com

Product image

Similar to illustration



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.

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. : 10 mm², Box
Order No.	1081930000
Type	BVF 7.62HP/02/180MSF2 BCF/04R SN BK BX
GTIN (EAN)	4032248844777
Qty.	50 pc(s).
Product data	IEC: 1000 V / 38 A / 0.5 - 10 mm² UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Box

Creation date March 22, 2021 11:19:36 PM CET

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Technical data

Dimensions and weights

Net weight	17.5 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	2	L1 in mm	15.24 mm
L1 in inches	0.6 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	6 mm²
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	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	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 mm²
Clamping range, max.	10 mm²
Solid, min. H05(07) V-U	0.5 mm²
Solid, max. H05(07) V-U	10 mm²
Stranded, max. H07V-R	10 mm²
Flexible, min. H05(07) V-K	0.5 mm²
Flexible, max. H05(07) V-K	10 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	1.5 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	6 mm²
w. wire end ferrule, DIN 46228 pt 1, min.	1.5 mm²
w. wire end ferrule, DIN 46228 pt 1, max.	10 mm²

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Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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 mm²
	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

Institute (CSA)		Certificate No. (CSA)	200039-1121690
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
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

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	60 mm
VPE width	135 mm	VPE height	135 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

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Technical data

Pitch in inches (Signal)	0.15 inch			
Pole count (hybrid)	nominal	2		
	Hybrid component	Power		
	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			
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		

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Technical data

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	
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

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Technical data

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 mm²
	max.	10 mm²
	Hybrid component	Signal
	min.	0.2 mm²
	max.	1.5 mm²
Clamping range, rated connection (Power)	0.5...10 mm²	
Clamping range, rated connection (Signal)	0.2...1.5 mm²	
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 mm²
	min.	0.5 mm²
	Hybrid component	Signal
	max.	1.5 mm²
	min.	0.14 mm²
solid, H05(07) V-U (Power)	0.5...10 mm²	
solid, H05(07) V-U (Signal)	0.14...1.5 mm²	
flexible, H05(07) V-K (hybrid)	Hybrid component	Power
	min.	0.5 mm²
	max.	6 mm²
	Hybrid component	Signal
	min.	0.14 mm²
	max.	1.5 mm²
flexible, H05(07) V-K (Power)	0.5...6 mm²	
flexible, H05(07) V-K (Signal)	0.14...1.5 mm²	
with wire-end ferrule with collar, DIN 46 228/4 (hybrid)	Hybrid component	Power
	min.	0.5 mm²
	max.	6 mm²
	Hybrid component	Signal
	min.	0.25 mm²
	max.	1.5 mm²
with wire-end ferrule with collar (Power)	0.5...6 mm²	
with wire-end ferrule with collar, DIN 46 228/4 (Signal)	0.25...1.5 mm²	

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with wire-end ferrule, according to DIN 46 228/1 (hybrid)	min.	0.5 mm²
	max.	6 mm²
	Hybrid component	Power
	min.	0.25 mm²
	max.	1.5 mm²
	Hybrid component	Signal
with wire-end ferrule according to DIN 46 228/1 (Power)	0.5…6 mm²	
with wire-end ferrule according to DIN 46 228/1 (Signal)	0.25…1.5 mm²	

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

ROHS	Conform
UL File Number Search	E60693

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Technical data

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Operating Instruction BVF Operating Instruction BVF hybrid QR-Code product handling video

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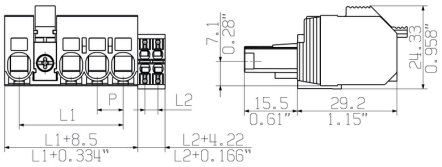
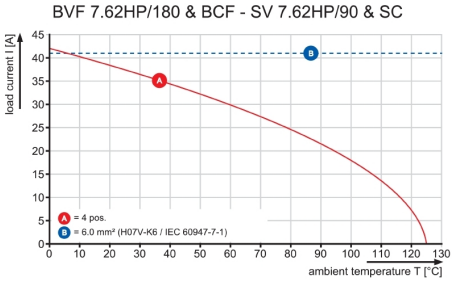
Drawings

Dimensional drawing



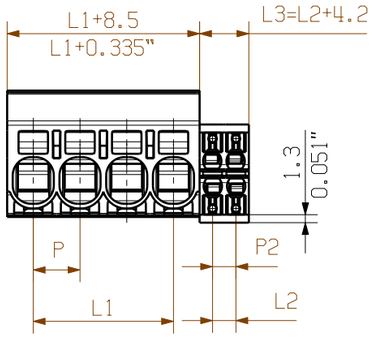
Graph

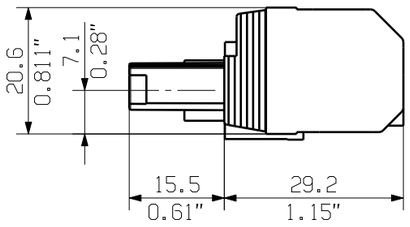


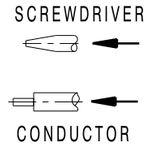
Dimensions without tolerances are no check dimensions

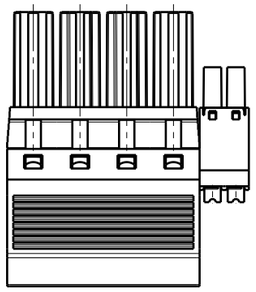
The English version is binding

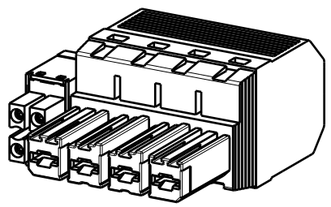
BVF7.62HP/.../180BCF/...R
SHOWN: BVF7.62HP/04/180BCF/04R



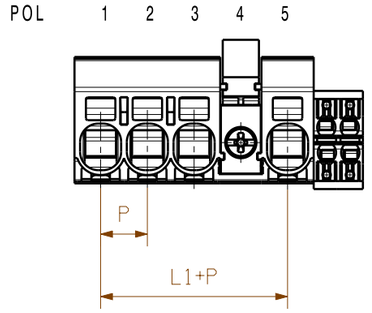


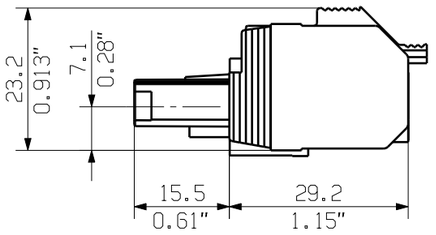


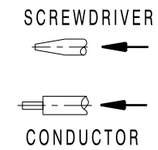


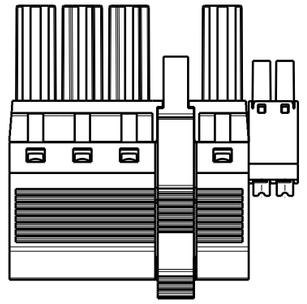


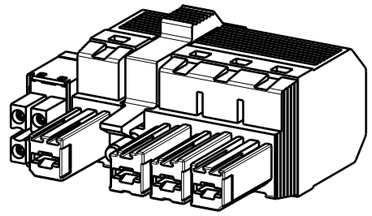
BVF7.62HP/.../180MF...BCF/...R
SHOWN: BVF7.62HP/04/180MF4BCF/04R











P = Raster/pitch = 7.62
P2 = Raster/pitch = 3.81

POLZAHL/ NO OF POLES	L1 mm	P mm	HYBRID 4POL L3=8.03mm L2=3.81	HYBRID 6POL L3=11.84mm L2=7.62	HYBRID 8POL L3=15.65mm L2=11.43
5	30,48	7.62			
4	22,86				
3	15,24				
2	7,62				

P=POL/POLES
MF= MITTELFLANSCH/MIDDLE FLANGE

NO OF POLES	POS					
POLE	1	2	3	4	5	6
2 MF 2	P	MF	P			
3 MF 2	P	MF	P	P		
3 MF 3	P	P	MF	P		
4 MF 3	P	P	MF	P	P	
4 MF 4	P	P	P	MF	P	
5 MF 3	P	P	MF	P	P	P
5 MF 4	P	P	P	MF	P	P

GENERAL TOLERANCE:
DIN ISO 2768-m

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller connectors are tested to the DIN VDE 0627 standard, and are valid for its field of application. Provided that the connectors are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

RoHS COMPLIANT

Max. nos.

First Issue Date 29.08.2018

. 00

Modification

Prim PLM Part No.:005815

Prim ERP Part No.:1080320000

Weidmüller

49284 Drawing no.

10 Issue no.

Sheet 01 of 01 sheets

		Date	Name
Drawn		24.10.2018	Administrator
Responsible			Krug, Matthias
Approved			

Scale: 2/11 Size: A3

Drawings Assembly

BVF 7.62HP/04/180 BCF
BUCHSENLEISTE
SOCKET BLOCK
not released

Product file: 7390 BVF/SVF 7.62HP .