

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

www.weidmueller.com

## **Product image**















180° female header with PUSH IN connection technology for field wiring in 6 mm² with 7.62 pitch.

Meets the requirements as per UL1059 600 V class C and IEC 61800-5-1. Ideal touch-safe solution for the power output.

The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Variants: without flange, external flange, middle flange with detent fastening and optionally additional screw mount.

### **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.	<u>2464070000</u>
Туре	BVF 7.62HP/04/180MF4 SN BK BX LRP
GTIN (EAN)	4050118478563
Qty.	40 pc(s).
Product data	IEC: 1000 V / 57 A / 0.5 - 10 mm <sup>2</sup> UL: 600 V / 39 A / AWG 24 - AWG 8
Packaging	Вох

Creation date April 15, 2021 9:49:23 PM CEST



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# **Technical data**

### **Dimensions and weights**

Depth	47.7 mm	Depth (inches)	1.878 inch
Height	22.9 mm	Height (inches)	0.902 inch
Net weight	29.548 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		Touch-safe protection acc. to DIN	VDE
	6 mm²	57 106	Safe from finger touch
Touch-safe protection acc. to DIN	VDE	Volume resistance	
0470	IP 20		$4.50~\text{m}\Omega$
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	Insulation strength	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of plug contact	68 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	l, 0.5 mm <sup>2</sup>
min.	
w. plastic collar ferrule, DIN 46228 pt	I, 6 mm <sup>2</sup>
max.	
w. wire end ferrule, DIN 46228 pt 1,	0.5 mm <sup>2</sup>
min.	
w. wire end ferrule, DIN 46228 pt 1,	10 mm <sup>2</sup>
max.	



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Clampable conductor	Cross-section for conductor connection	Туре	fine-wired
		nominal	0.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H0,5/12 OR
	Cross-section for conductor connection	Туре	fine-wired
		nominal	0.75 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H0,75/18 W
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire- end ferrule	H1,0/18 GE
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H1,5/12
		Stripping length	nominal 15 mm
		Recommended wire- end ferrule	H1,5/18D SW
	Cross-section for conductor connection	Туре	fine-wired
		nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H2,5/12
		Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H2,5/19D BL
	Cross-section for conductor connection	Туре	fine-wired
		nominal	4 mm <sup>2</sup>
	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	Туре	fine-wired
		nominal	6 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H6,0/12
		Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H6,0/20 SW
	Cross-section for conductor connection	Туре	fine-wired
		nominal	10 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H10,0/12

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		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	57 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	51 A	(Tu=40°C)	57 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	45 A	pollution degree II/2	1,000 V
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree III/2	1,000 V	pollution degree III/3	800 V
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree II/2	6 kV	class/ pollution degree III/2	8 kV
Rated impulse voltage for surge voltage		Short-time withstand current resistance	
class/ contamination degree III/3	8 kV		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)

Rated voltage (Use group B / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V
Rated current (Use group C / UL 1059)	39 A
Wire cross-section, AWG, min.	AWG 24
Reference to approval values	Specifications are maximum values, details - see approval certificate.

	L00033
Rated voltage (Use group C / UL 1059	9) 600 V
Rated current (Use group B / UL 1059	9) 39 A
Rated current (Use group D / UL 1059	9) 5 A
Wire cross-section, AWG, max.	AWG 8

E60602

### **Packing**

Packaging	Box	VPE length	338 mm
VPE width	130 mm	VPE height	54 mm

### Type tests

Test: Durability of markings	Standard	DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96
	Test	mark of origin, type identification, pitch
	Evaluation	available
	Test	durability
	Evaluation	passed
Test: Misengagement (Non- interchangeability)	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.08
	Test	180° turned with coding elements
	Evaluation	passed
	Test	180° turned without coding elements
	Evaluation	passed



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Test: Clampable cross section	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DI EN 60947-1 section 8.2.4.5.1 / 04.08		
	Conductor type	Type of conductor solid 0.5 mm <sup>2</sup> and conductor cross-section		
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section		
		Type of conductor solid 6 mm <sup>2</sup> and conductor cross-section		
		Type of conductor stranded 6 mm <sup>2</sup> and conductor cross-section		
		Type of conductor AWG 24/1 and conductor cross-section		
		Type of conductor AWG 24/19 and conductor cross-section		
		Type of conductor AWG 14/1 and conductor cross-section		
		Type of conductor AWG 14/19 and conductor cross-section		
	Evaluation	passed		
Test for damage to and accidental	Standard	DIN EN 60999-1 section 9.4 / 12.00		
oosening of conductors	Requirement 0.3 kg			
Ç	Conductor type	Type of conductor H05V-U0.5 and conductor cross-section		
		Type of conductor H05V-K0.5 and conductor cross-section		
		Type of conductor AWG 20/1 and conductor cross-section		
		Type of conductor AWG 20/19 and conductor cross-section		
	Evaluation	passed		
	Requirement	1.4 kg		
	Conductor type	Type of conductor H07V-U6 and conductor cross-section		
		Type of conductor H07V-K6 and conductor cross-section		
		Type of conductor AWG 10/1 and conductor cross-section		
		Type of conductor AWG 10/19 and conductor cross-section		



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Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥20 N
	Conductor type	Type of conductor H05V-U0.5 and conductor cross- section
		Type of conductor H05V-K0.5 and conductor cross-section
		Type of conductor AWG 20/1 and conductor cross-section
		Type of conductor AWG 20/19 and conductor cross-section
	Evaluation	passed
	Requirement	≥80 N
	Conductor type	Type of conductor H07V-U6 and conductor cross-section
		Type of conductor H07V-K6 and conductor cross-section
		Type of conductor AWG 10/1 and conductor cross-section
		Type of conductor AWG 10/19 and conductor cross-section
	Evaluation	passed

### 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	Additional colours on request

- Wire end ferrule with plastic collar to DIN 46228/4
- Wire end ferrule without plastic collar to DIN 46228/1
- P on drawing = pitch
- 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



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# **Technical data**

### **Approvals**

Approvals	c <b>FAL</b> "us	
ROHS	Conform	

E60693

Downloa	ds

**UL File Number Search** 

Approval/Certificate/Document	of	
Conformity	Declaration of the Manufacturer	
User Documentation	Operating Instruction BVF	
	<u>QR-Code product handling video</u>	
Brochure/Catalogue	Catalogues in PDF-format	



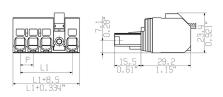
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# **Drawings**

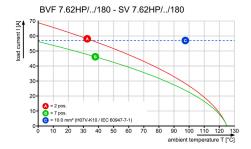
## **Dimensional drawing**

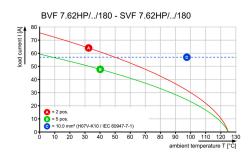


## **Connection diagram**

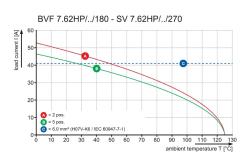
NO OF POLES	X = MIDDLE FLANGE POSITION	POS 1 2 3 4 5						
		1	2	3	4	5	6	7
2	M(S)F2	0	Х	0				
3	M(S)F2	0	Х	0	0			
3	M(S)F3	0	0	Х	0			
4	M(S)F2	0	Х	0	0	0		
4	M(S)F3	0	0	Х	0	0		
4	M(S)F4	0	0	0	Х	0		
5	M(S)F2	0	Х	0	0	0	0	
5	M(S)F3	0	0	Х	0	0	0	
5	M(S)F4	0	0	0	Х	0	0	
5	M(S)F5	0	0	0	0	Х	0	
6	M(S)F2	0	Х	0	0	0	0	0
6	M(S)F3	0	0	Х	0	0	0	0
6	M(S)F4	0	0	0	Х	0	0	0
6	M(S)F5	0	0	0	0	Х	0	0
6	M(S)F6	0	0	0	0	0	Х	0

## Graph Graph





### Graph



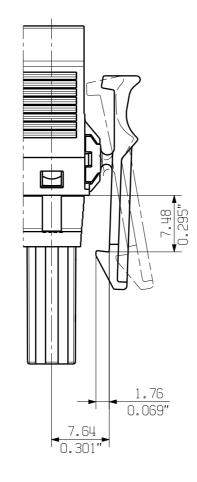
### **Product benefits**



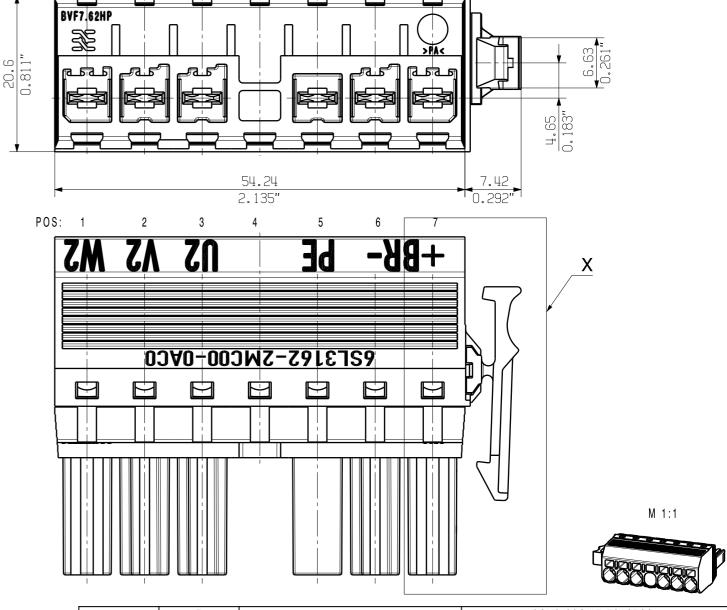
Outlet direction: 90° und 180°

7.62

Representation of the actuated retaining hook



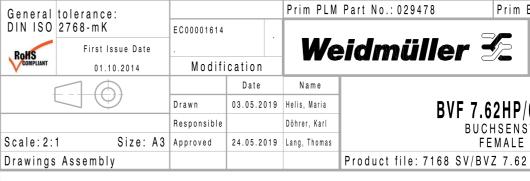
Plastic PA GF Retaining hook PA red Contact base material Cu-Leg Coating thickness - plug contact  $6-8\mu m$  Sn material tension spring Steel Alloyed Crimp dimensions 5.0X4.0mm



45.72

1.8"

65L3162-2MC00-0AC0 2503040000 BVF 7.62HP/06/180 SN BK BX SO ٦N ЬΕ +BB-MS ۸5 1987300000 BVF 7.62HP/06/180 SN BK BX SO 1 ٦N ЬE +BB-Bedr. 5 6 ERP Fläche/ Bezeichnung/ Nummer/ description printing Bedruckung/printing number area Prim ERP Part No.: 1987300000



BVF 7.62HP/06/180 SO BUCHSENSTECKER FEMALE PLUG

60834

Sheet 01 of 01 sheets

Drawing no.

(10)

Issue no

be determined according to DIN IEC 326 part 3 very fine. Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

accordance to IEC 664 / VDE 0110.

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components

alone. The neccessary creepage and clearance paths must be

observed in connection with the respective applicant in

The current-carrying capacity and pitch tolerance is to