

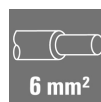
BVFL 7.62HP/03/180MF3 SN BK BX**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Product image

180° female plug with PUSH IN connection system with adjustable actuator (pusher) for field wiring 6 mm² in a 7.62 pitch. Meets the requirements of UL 1059 600 V Class C and IEC 61800-5-1. Also ideal as a touch-safe solution for the power output. The self-locking middle flange which can optionally also be screwed, reduces the space requirements by one pitch width in comparison with conventional solutions. Variants: without flange, external flange, middle flange with snap-on mechanism and optionally additional screw mount

General ordering data

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, PUSH IN with actuator, Clamping range, max.: 6 mm ² , Box
Order No.	2549370000
Type	BVFL 7.62HP/03/180MF3 SN BK BX
GTIN (EAN)	4050118558913
Qty.	60 pc(s).
Product data	IEC: 1000 V / 41 A / 0.5 - 6 mm ² UL: 600 V / 39 A / AWG 24 - AWG 8
Packaging	Box

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Technical data**Dimensions and weights**

Depth	52.1 mm	Depth (inches)	2.051 inch
Height	20.6 mm	Height (inches)	0.811 inch
Net weight	16.9 g		

System Parameters

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Field connection
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	22.86 mm
L1 in inches	0.9 "	Number of rows	1
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
Protection degree	IP20	Volume resistance	4.50 mΩ
Can be coded	Yes	Stripping length	12 mm
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)	≥ 600	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 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, 0.5 mm ² min.	
w. wire end ferrule, DIN 46228 pt 1, 6 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	H0.5/12 OR
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	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 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		Type	fine-wired
		nominal	2.5 mm ²
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		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 12 mm
		Recommended wire-end ferrule	H6.0/12
		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	H6.0/20 SW

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)	41 A
Rated current, max. number of poles (Tu=20°C)	41 A	Rated current, min. number of poles (Tu=40°C)	41 A
Rated current, max. number of poles (Tu=40°C)	38 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
Clearance, min.	10.4 mm	Creepage distance, min.	12.7 mm

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

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)	39 A
Rated current (Use group C / UL 1059)	39 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 8

Packing

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

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	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
ECLASS 12.0	27-46-02-02	ECLASS 13.0	27-46-02-02

Environmental Product Compliance

REACH SVHC /

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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	<ul style="list-style-type: none"> • Additional variants 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. • Additional pole combinations on request • 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

Approvals

ROHS	Conform
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Downloads

Engineering Data	CAD data – STEP
Product Change Notification	EN - Change of isolation material DE - Werkstoffänderung Pusher 20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors 20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder 20220208 Visual change Temporarily different color for connectors and accessories 20220208 Visuelle Änderung Vorübergehend anderer Farbton für Steckverbinder und Zubehör
User Documentation	Operating Instruction BVFL QR-Code product handling video
Catalogues	Catalogues in PDF-format

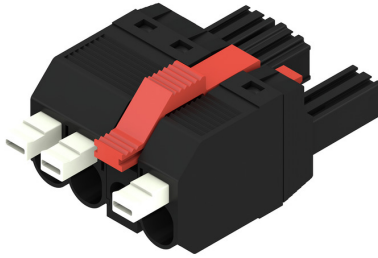
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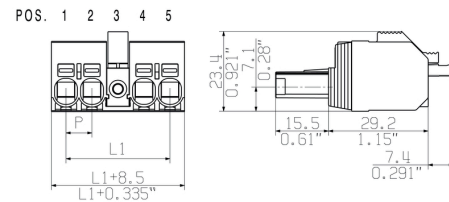
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Drawings

Product image



Dimensional drawing




Similar to illustration

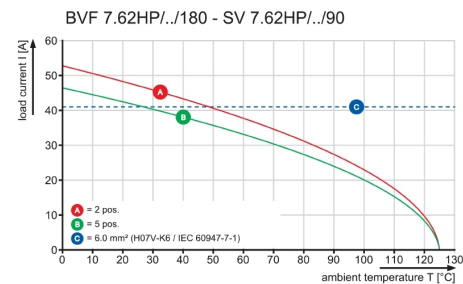
Connection diagram

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

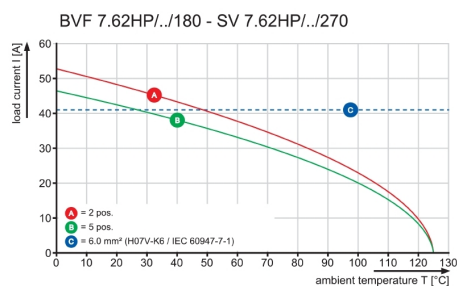
POS. 1 2 3 4 5



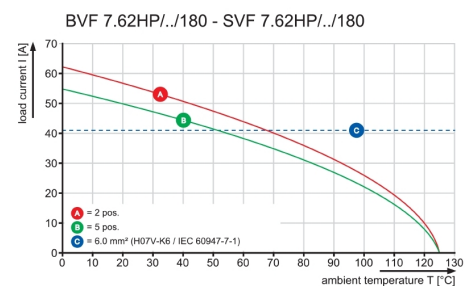
Graph



Graph



Graph



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Drawings

Product benefits



Secure connection of small conductors
PUSH IN WIRE READY

Product benefits

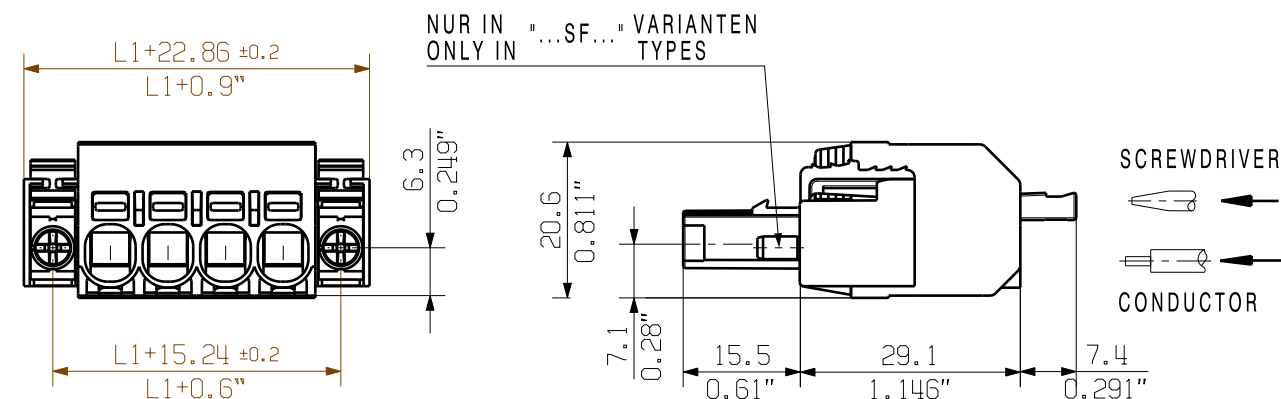
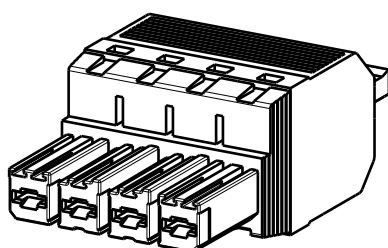


Installation without tools
Outlet direction: 90° und 180°

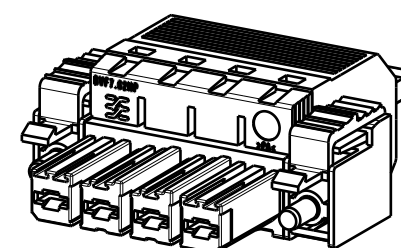
SHOWN: BVFL 7.62HP/04/180(S)F

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M 1:1



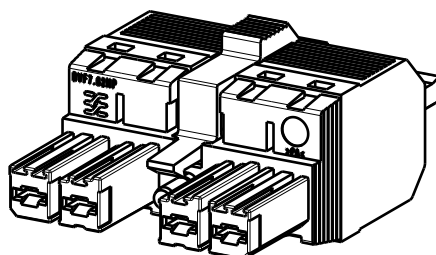
M 1:1



Technical drawing of a 5-pin D-sub connector. The drawing shows the front and side views. Key dimensions are indicated:

- Pin diameter: $\varnothing 3.8$ mm / 0.15"
- Pin pitch: $n \times P \pm 0.25 \pm 0.2$ mm / $n \times P \pm 0.468''$
- Overall height: 22.2 mm / 0.874"

M 1:1



POS. 1 2 3 4 5

$L1 + 16.1 \pm 0.2$
 $L1 + 0.635''$

NUR IN ...SF... VARIANTEN
 ONLY IN ...SF... TYPES

23.4
 0.921"

Technical drawing of a screwdriver bit showing dimensions in inches. The bit has a total length of 23.4 inches and a diameter of 0.921 inches. The handle section is 7.1 inches long, and the bit section is 0.28 inches long. The bit section is divided into three segments: 15.5 inches, 29.2 inches, and 7.4 inches. The bit section is also divided into three segments: 0.61 inches, 1.15 inches, and 0.291 inches. The bit section is labeled "SCREWDRIVER" and the handle section is labeled "CONDUCTOR".

F = Flansch / flange
SF = Schraubflansch / screw flange
MF = Mittelflansch / middle flange
MSF = Mittelschraubflansch / middle screw flange
P = Raster / pitch
n = Polzahl/no of poles

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




The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110.

The current-carrying capacity and pitch tolerance is to 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 occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

6 M(S)F 4	P	P	P	M(S)F	P	P	P
5 M(S)F 4	P	P	P	M(S)F	P	P	
5 M(S)F 3	P	P	M(S)F	P	P	P	
4 M(S)F 4	P	P	P	M(S)F	P		
4 M(S)F 3	P	P	M(S)F	P	P		
3 M(S)F 3	P	P	M(S)F	P			
3 M(S)F 2	P	M(S)F	P	P			
2 M(S)F 2	P	M(S)F	P				
POS.	1	2	3	4	5	6	7

7	45,72	1,8
6	38,10	1,5
5	30,48	1,2
4	22,86	0,9
3	15,24	0,6
2	7,62	0,3
POLE NO OF POLES	L1 (mm)	L1 (Inch)

<div></div> <div>DIN ISO 2768-m</div>	97120/0 18.08.17 HELIS_MA		00	<div><div>Weidmüller</div><div></div></div>	CAT.NO.: <div>C 60714 03</div>	
	MODIFICATION				DRAWING NO. ISSUE N SHEET 01 OF 01 SHEET	
	<div></div>		DATE		NAME	<div><div>BVFL 7.62HP/.../180...</div><div>BUCHSENSTECKER FEMALE PLUG</div></div>
	DRAWN	23.09.2014	HELIS_MA			
	RESPONSIBLE		KRUG_M			
SCALE: 2:1	CHECKED	18.08.2017	HELIS_MA			
SUPERSEDES: .	APPROVED		LANG T	PRODUCT FILE: BVF 7.62HP		7390