

**BVZ 7.62IT/03/180MF3 SN BK BX**
**Weidmüller Interfaces GmbH & Co. KG**

Postfach 3030

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**Product image**


180° female plug with a 7.62 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SV 7.62 IT.. with leading contact.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth.

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

On request also available without middle flange interlock.

**General ordering data**

Version	PCB plug-in connector, female plug, 7.62 mm, Number of poles: 3, 180°, Clamping yoke connection, Clamping range, max. : 10 mm², Box
Order No.	<a href="#">1156730000</a>
Type	BVZ 7.62IT/03/180MF3 SN BK BX
GTIN (EAN)	4032248943937
Qty.	40 pc(s).
Product data	IEC: 1000 V / 57 A / 0.2 - 10 mm² UL: 600 V / 40.5 A / AWG 24 - AWG 8
Packaging	Box

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**Technical data****Dimensions and weights**

Depth	43.1 mm	Depth (inches)	1.697 inch
Height	26.1 mm	Height (inches)	1.028 inch
Width	30.48 mm	Width (inches)	1.2 inch
Net weight	17.897 g		

**Temperatures**

Operating temperature, min.	-50 °C	Operating temperature, max.	125 °C
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**System Parameters**

Product family	OMNIMATE Power - series BV/SV 7.62IT	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Conductor outlet direction	180°
Number of poles	3	L1 in mm	22.86 mm
L1 in inches	0.9 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	6 mm <sup>2</sup>
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, min.	0.5 Nm
Tightening torque, max.	0.6 Nm	Clamping screw	M 3
Screwdriver blade	0.6 x 3.5	Plugging cycles	25
Plugging force/pole, max.	14 N	Pulling force/pole, max.	14 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.	0.2 mm <sup>2</sup>
Clamping range, max.	10 mm <sup>2</sup>
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>
Solid, max. H05(07) V-U	6 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 4, min.	0.25 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	6 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm <sup>2</sup>
Plug gauge in accordance with EN 60999 a x b; ø	2.8 mm x 2.0 mm; 2.4 mm

Creation date May 2, 2023 4:18:43 PM CEST

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**Technical data**

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	0.5 mm <sup>2</sup>
	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	<a href="#">H0.5/18 OR</a>	
	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	1 mm <sup>2</sup>
	Stripping length	nominal	15 mm
	Recommended wire-end ferrule	<a href="#">H1.0/18 GE</a>	
	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	1.5 mm <sup>2</sup>
	Stripping length	nominal	15 mm
	Recommended wire-end ferrule	<a href="#">H1.5/18D SW</a>	
	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	<a href="#">H1.5/12</a>	
	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	0.75 mm <sup>2</sup>
	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	<a href="#">H0.75/18 W</a>	
	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	2.5 mm <sup>2</sup>
	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	<a href="#">H2.5/19D BL</a>	
	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	<a href="#">H2.5/12</a>	
	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	4 mm <sup>2</sup>
	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	<a href="#">H4.0/12</a>	
	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	<a href="#">H4.0/20D GR</a>	
	Cross-section for conductor connection	Type	fine-wired
	wire end ferrule	nominal	6 mm <sup>2</sup>
	Stripping length	nominal	14 mm
	Recommended wire-end ferrule	<a href="#">H6.0/20 SW</a>	
	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	<a href="#">H6.0/12</a>	

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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57 A**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)	57 A
Rated current, min. number of poles (Tu=40°C)	41 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.	10.2 mm	Creepage distance, min.	13.8 mm

**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)	40.5 A
Rated current (Use group C / CSA)	40.5 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)	40.5 A
Rated current (Use group C / UL 1059)	40.5 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	353 mm
VPE width	135 mm	VPE height	49 mm

**Classifications**

ETIM 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	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

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**Important note**

IPC conformity	Conformity: The products are developed, manufactured and delivered according to 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"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">WSCAD</a>
Product Change Notification	<a href="#">20220201 Visual change OMNIMATE® Power PCB terminal blocks and connectors</a> <a href="#">20220201 Visuelle Änderung OMNIMATE® Power Leiterplattenklemmen und -steckverbinder</a> <a href="#">20220208 Visual change Temporarily different color for connectors and accessories</a> <a href="#">20220208 Visuelle Änderung Vorübergehend anderer Farbton für Steckverbinder und Zubehör</a>
User Documentation	<a href="#">QR-Code product handling video</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a> <a href="#">MB DEVICE MANUF. EN</a> <a href="#">FL DRIVES DE</a> <a href="#">FL HEATING ELECTR EN</a> <a href="#">FL APPL INVERTER EN</a> <a href="#">FL BASE STATION EN</a> <a href="#">FL ELEVATOR EN</a> <a href="#">FL POWER SUPPLY EN</a> <a href="#">FL 72H SAMPLE SER EN</a> <a href="#">PO OMNIMATE EN</a> <a href="#">PO OMNIMATE EN</a>

**Data sheet**

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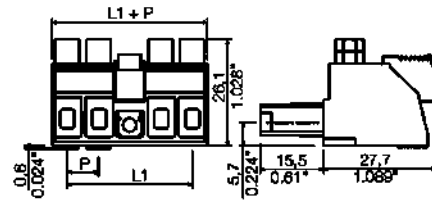
Fax. +49 5231 14-2083

**Drawings**

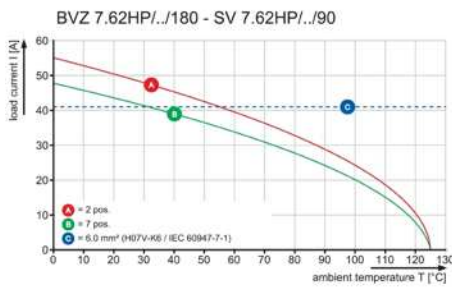
**Product image**



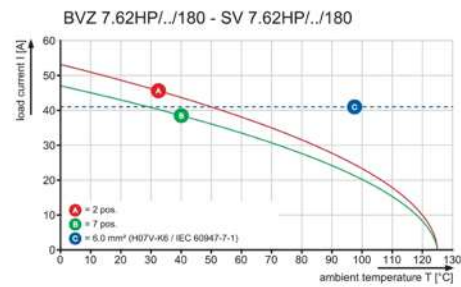
**Dimensional drawing** [info@weidmueller.com](mailto:info@weidmueller.com)



**Graph**

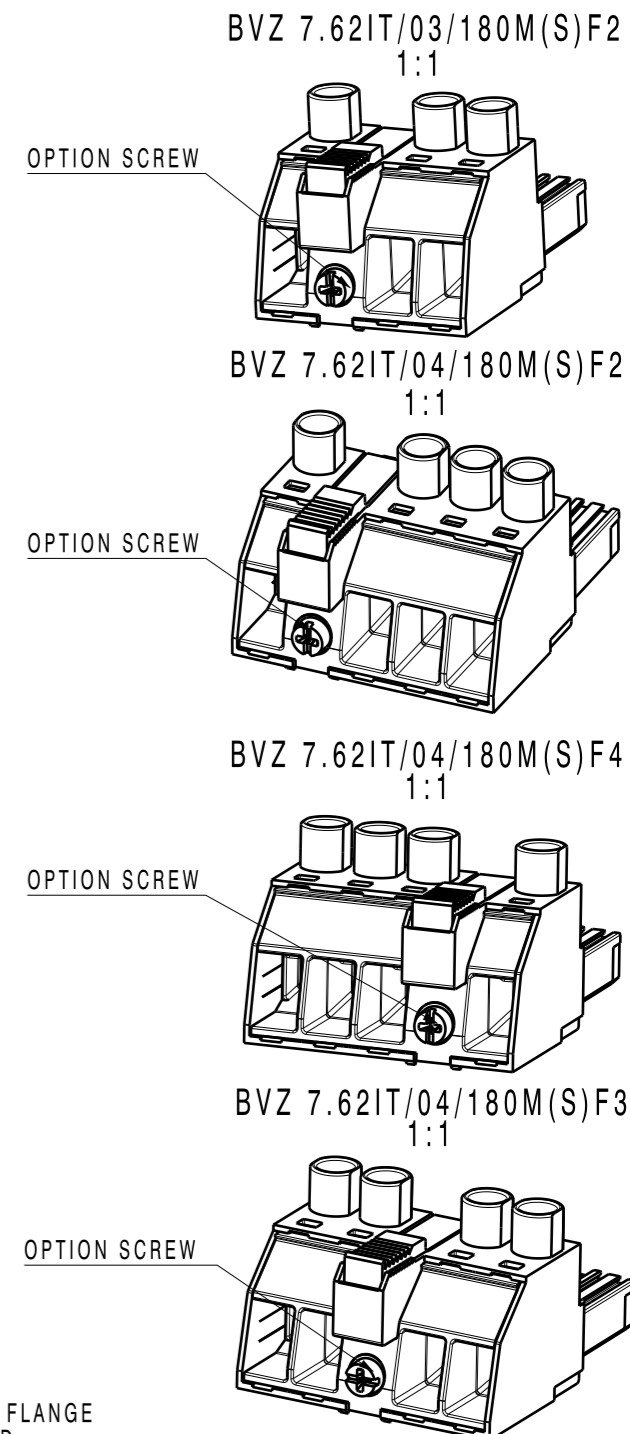
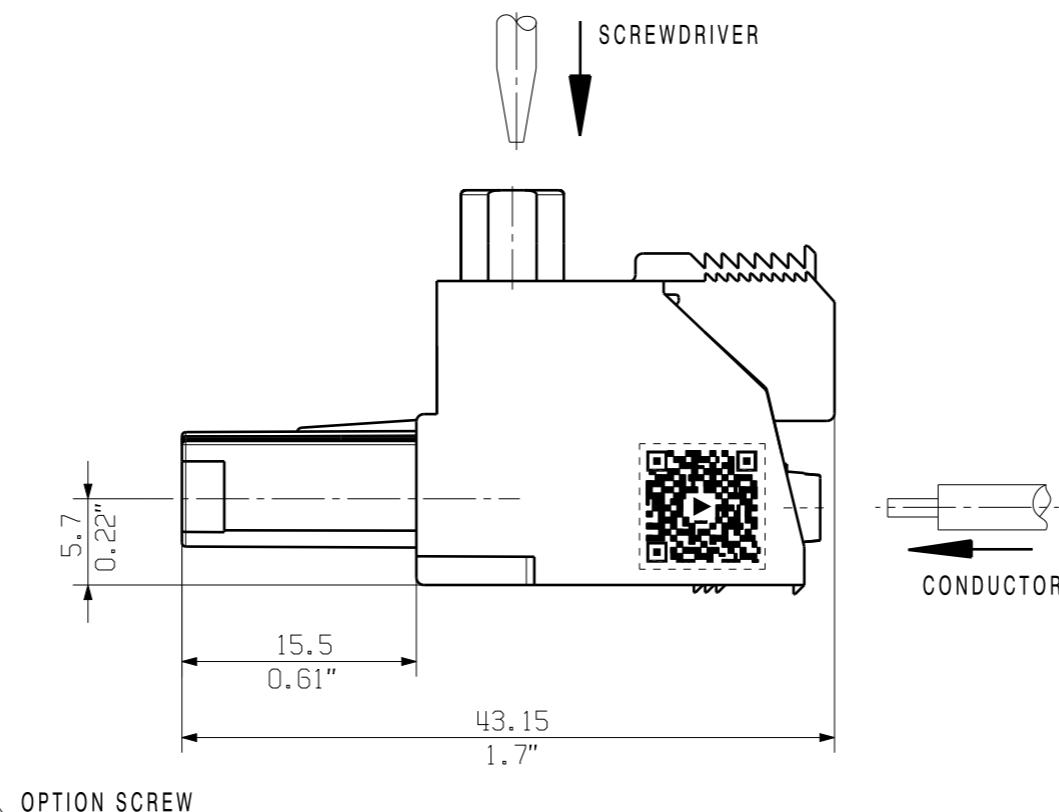
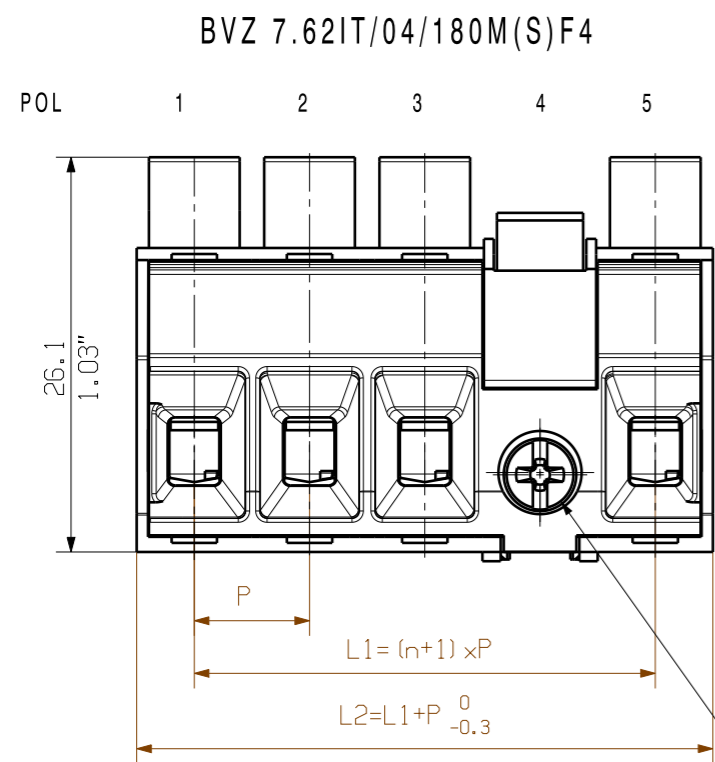


**Graph**



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P= RASTER/PITCH  
MF = MITTELFLANSCH/MIDDLE FLANGE  
PE= POTENTIAL ERDE/GROUND  
n= POLZAHL/NO. OF POLES  
POL= POL/POLES

BVZ7.62IT/03/180 MF 2	POL	MF	POL	POL		7	53,34	2,10
BVZ7.62IT/04/180 MF 3	POL	POL	MF	POL	POL	6	45,72	1,80
BVZ7.62IT/04/180 MF 4	POL	POL	POL	MF	POL	5	38,10	1,50
BVZ7.62IT/04/180 MF 2	POL	MF	POL	POL	POL	4	30,48	1,20
						3	22,86	0,90
						2	15,24	0,60
BEZEICHNUNG/ PART NAME	1	2	3	4	5	n	MM	INCH
	POSITION					L1		

For the mounting of PCBs, it should be noted that the rated data given in the catalogue relates only to the connection elements. The necessary 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 PCB components are tested to the DIN VDE 0627 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.

**HINWEIS: QR Code bitte noch nicht berücksichtigen!**  
**INFORMATION: Please do not consider the QR code yet**

GENERAL TOLERANCE:  
DIN ISO 2768-mK

EC00001333	Prim PLM Part No.: 011202	Prim ERP Part No.: 1312730000
RoHS COMPLIANT	Max. nos.	<b>Weidmüller</b>
First Issue Date 24.06.2011	Modification	<b>50052</b> Drawing no. Issue no. Sheet 02 of 05 sheets
Drawn 29.04.2019 Helis, Maria	Date Name	<b>BVZ 7.62IT/././180MF...</b> BUCHSENLEISTE SOCKET BLOCK
Responsible Döhrrer, Karl	Date Name	
Approved 14.05.2019 Lang, Thomas	Date Name	
Scale: 2:1 Size: A3	Drawings Assembly	Product file: 7391 BVZ7.62HP_MF