

**BVF 7.62HP/05/180MSF4 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.

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: 5, 180°, PUSH IN with actuator, PUSH IN without actuator, Clamping range, max. : 10 mm², Box
Order No.	<a href="#">1080940000</a>
Type	BVF 7.62HP/05/180MSF4 BCF/04R SN BK BX
GTIN (EAN)	4032248844111
Qty.	25 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 June 13, 2024 2:08:07 PM CEST

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

Net weight	36 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 with actuator, PUSH IN without actuator	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 "	Conductor outlet direction	180°
Number of poles	5	L1 in mm	38.1 mm
L1 in inches	1.5 "	L2 in mm	3.81 mm
L2 in inch	0.15 "	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 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	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 <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 4, 1.5 mm <sup>2</sup> min.	
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm <sup>2</sup> max.	
w. wire end ferrule, DIN 46228 pt 1, 1.5 mm <sup>2</sup> min.	
w. wire end ferrule, DIN 46228 pt 1, 10 mm <sup>2</sup> max.	

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**Technical data**

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H0.5/18 OR</a>
Cross-section for conductor connection		Type	fine-wired
		nominal	1 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 15 mm
		Recommended wire-end ferrule	<a href="#">H1.0/18 GE</a>
Cross-section for conductor connection		Type	fine-wired
		nominal	1.5 mm <sup>2</sup>
wire end ferrule		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
		nominal	0.75 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H0.75/18 W</a>
Cross-section for conductor connection		Type	fine-wired
		nominal	2.5 mm <sup>2</sup>
wire end ferrule		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
		nominal	4 mm <sup>2</sup>
wire end ferrule		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
		nominal	6 mm <sup>2</sup>
wire end ferrule		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>
Cross-section for conductor connection		Type	fine-wired
		nominal	10 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H10.0/12</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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**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
Clearance, min.	10.4 mm	Creepage distance, min.	12.7 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)	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	353 mm
VPE width	135 mm	VPE height	61 mm

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**Technical data****Technical data - hybrid**

Pitch in mm (Signal)	3.81 mm	Pitch in inches (Signal)	0.15 inch
Number of poles (Signal)	4	L2 in mm	3.81 mm
L2 in inch	0.15 "	Number of rows (Signal)	2
Contact material (Signal)	CuMg	Contact surface (Signal)	tinned
Layer structure of the plug contact (Signal)	1-3 µ Ni / 4-8 µ Sn	Rated voltage for overvoltage class/pollution severity level II/2 (Signal)	400 V
Rated voltage for overvoltage class/pollution severity level III/2 (Signal)	320 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 (Signal)	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 (Signal)	4 kV	Short-time withstand current resistance (Signal)	3 x 1s with 80 A
Rated voltage (Use group B / CSA) (Signal)	300 V	Rated voltage (Use group C / CSA) (Signal)	50 V
Rated voltage (Use group D / CSA) (Signal)	300 V	Rated current (Use group B / CSA) (Signal)	9 A
Rated current (Use group C / CSA) (Signal)	9 A	Rated current (Use group D / CSA) (Signal)	9 A
Wire connection cross-section AWG (Signal)	AWG 24...AWG 16	Rated voltage (Use group B / UL 1059] (Signal)	300 V
Rated voltage (Use group C / UL 1059] (Signal)	50 V	Rated voltage (Use group D / UL 1059] (Signal)	300 V
Rated current (Use group B / UL 1059] (Signal)	5 A	Rated current (Use group C / UL 1059] (Signal)	5 A
Rated current (Use group D / UL 1059] (Signal)	5 A	Connector cross-section (Signal)	AWG 26...AWG 16

**Conductors that can be connected - Hybrid**

Clamping range, rated connection (Power)	0.5...10 mm <sup>2</sup>	Clamping range, rated connection (Signal)	0.2...1.5 mm <sup>2</sup>
Connector cross-section (Power)	AWG 24...AWG 8	Connector cross-section AWG (Signal)	AWG 26...AWG 16
solid, H05(07) V-U (Power)	0.5...10 mm <sup>2</sup>	solid, H05(07) V-U (Signal)	0.14...1.5 mm <sup>2</sup>
flexible, H05(07) V-K (Power)	0.5...6 mm <sup>2</sup>	flexible, H05(07) V-K (Signal)	0.14...1.5 mm <sup>2</sup>
with wire-end ferrule with collar (Power)	0.5...6 mm <sup>2</sup>	with wire-end ferrule with collar, DIN 46 228/4 (Signal)	0.25...1.5 mm <sup>2</sup>
with wire-end ferrule according to DIN 46 228/1 (Power)	0.5...6 mm <sup>2</sup>	with wire-end ferrule according to DIN 46 228/1 (Signal)	0.25...1.5 mm <sup>2</sup>

**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	27-46-03-02	ECLASS 13.0	27-46-03-02

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[www.weidmueller.com](http://www.weidmueller.com)**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"> <li>• Technical specifications refer to the power contacts</li> <li>• Technical data of signal contacts: 50V / 5A, stripping length 8mm</li> <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>• 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>• 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</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

**Approvals**

Approvals



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

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formity[Declaration of the Manufacturer](#)

Engineering Data

[CAD data – STEP](#)

Product Change Notification

[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 BVF](#)[Operating Instruction BVF hybrid](#)[QR-Code product handling video](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

[FL DRIVES EN](#)[MB DEVICE MANUF. EN](#)[FL DRIVES DE](#)[FL HEATING ELECTR EN](#)[FL APPL. INVERTER EN](#)[FL BASE STATION EN](#)[FL ELEVATOR EN](#)[FL POWER SUPPLY EN](#)[FL 72H SAMPLE SER EN](#)[PO OMNIMATE EN](#)[PO OMNIMATE EN](#)

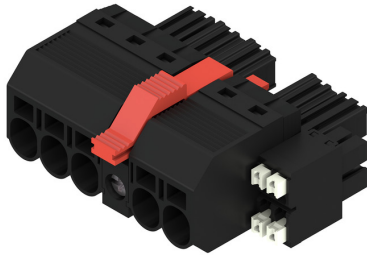
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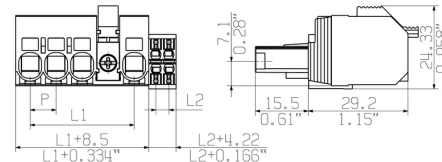
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## Drawings

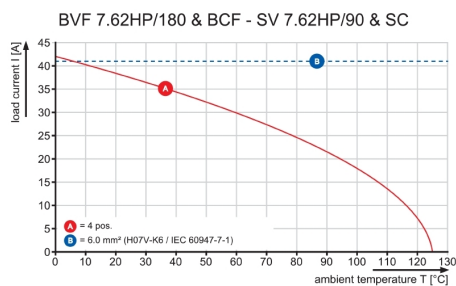
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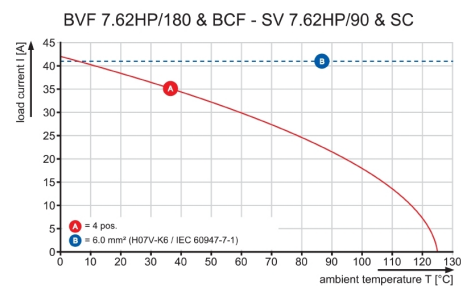
## Dimensional drawing



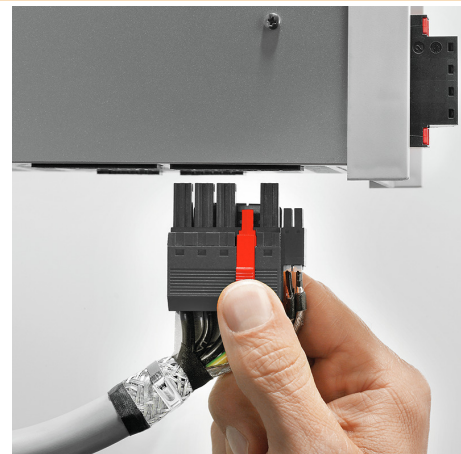
## Graph



## Graph



## Product benefits



Single-handed operation  
Automatic latching



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## Accessories

### Crimping tools



#### Crimping tools for wire end ferrules, with and without plastic collars

- Ratchet guarantees precise crimping
- Release option in the event of incorrect operation

### General ordering data

Type	PZ 6/5	Version
Order No.	<a href="#">9011460000</a>	Pressing tool, Crimping tool for wire-end ferrules, 0.25mm <sup>2</sup> , 6mm <sup>2</sup> ,
GTIN (EAN)	4008190165352	Trapezoidal indentation crimp
Qty.	1 pc(s).	

### Coding elements



#### The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.

OMNIMATE Power sets the new standard – with increased safety and innovative solutions such as the pluggable shield, integrated signal contacts and one-handed operation.

The three product lines offer you further advantages:

- Application-oriented scalability: from the compact 4 mm<sup>2</sup> connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm<sup>2</sup> connector for 76 A (IEC) or 54 A (UL)
- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:

Design your individual connectors simply by using the

### General ordering data

Type	BV/SV 7.62HP KO	Version	Product data	Packaging
Order No.	<a href="#">1937590000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4032248608881	of poles: 1		
Qty.	50 pc(s).			

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## Accessories

## Slotted screwdriver



Slotted screwdriver with rounded blade SD DIN 5265, ISO 2380/2, output to DIN 5264, ISO 2380/1. ChromTop tip, SoftFinish grip

## General ordering data

Type	SDS 0.8X4.5X125	Version
Order No.	<a href="#">9009020000</a>	Screwdriver, Screwdriver
GTIN (EAN)	4032248266883	
Qty.	1 pc(s).	

## Shielding



**The pluggable connections for power electronics - optimised for modern drive technologies, e.g. motor starters, frequency converters and servo-controllers.**

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- Unlimited usage up to 1,000 V (IEC) or 600 V (UL)
- A variety of application optimised mounting options

Our Service:

Design your individual connectors simply by using the

## General ordering data

Type	Version	Product data	Packaging
BVF 7.62HP SH180 4-6 KIT	PCB plug-in connector, Accessories, For a shield connection, black,		Box
Order No.	<a href="#">1118470000</a>		
GTIN (EAN)	4032248899456		
Qty.	25 pc(s).		
BVF 7.62HP SH210 4-6 KIT	PCB plug-in connector, Accessories, For a shield connection, black,		Box
Order No.	<a href="#">1118490000</a>		
GTIN (EAN)	4032248899302		
Qty.	25 pc(s).		
BVF 7.62HP SH150 4-6 KIT	PCB plug-in connector, Accessories, For a shield connection, black,		Box
Order No.	<a href="#">1118480000</a>		
GTIN (EAN)	4032248899449		
Qty.	25 pc(s).		

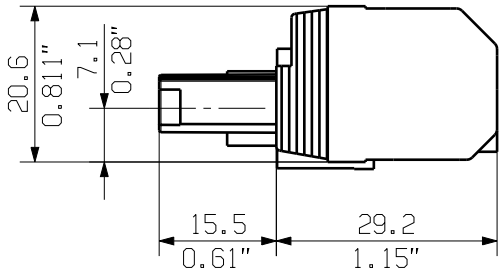
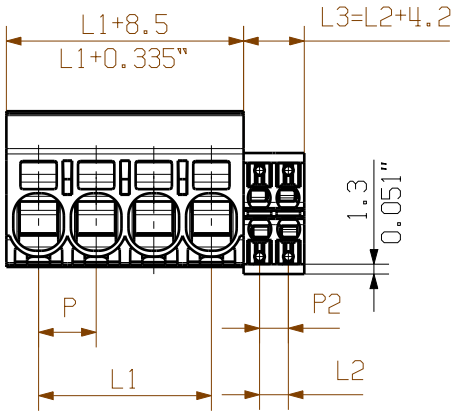
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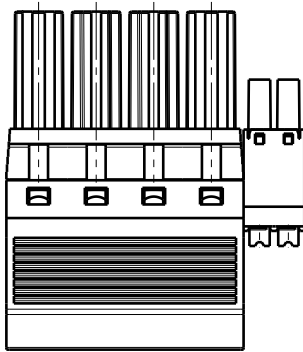
Dimensions without tolerances are no check dimensions

The English version is binding

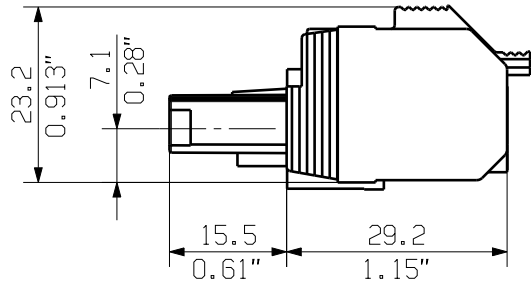
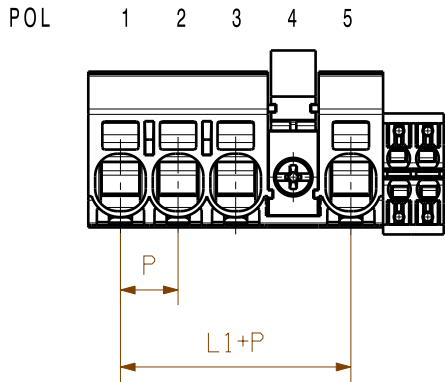
BVF7.62HP/.../180BCF/...R  
SHOWN: BVF7.62HP/04/180BCF/04R



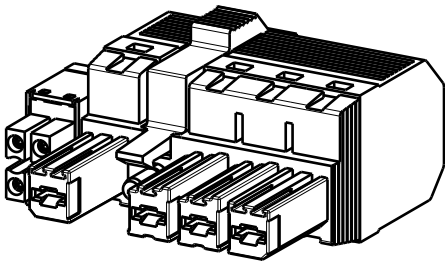
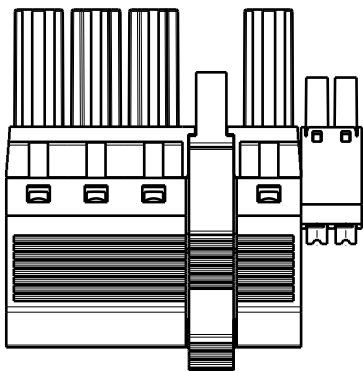
SCREWDRIVER  
CONDUCTOR



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



SCREWDRIVER  
CONDUCTOR



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

5	30,48	7.62			
4	22,86				
3	15,24				
2	7,62				
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

GENERAL TOLERANCE:  
DIN ISO 2768-m

P=POL/POLES  
MF= MITTELFANSCH/MIDDLE FLANGE

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

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 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 occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.

	Max. nos.		Prim PLM Part No.:005815		Prim ERP Part No.:1080320000	
	First Issue Date 29.08.2018		00			
	Modification					
	Drawn	Date 24.10.2018	Name Administrator			
	Responsible		Krug, Matthias			
Scale: 2/11	Size: A3	Approved				
Drawings Assembly		Product file: 7390 BVF/SVF 7.62HP				

**BVF 7.62HP/04/180 BCF**  
BUCHSENLEISTE  
SOCKET BLOCK

not released

49284  
Drawing no. Issue no.  
Sheet 01 of 01 sheets