

**BUF 10.16IT/04/180MF2 AG BK BX**

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

www.weidmueller.com



Device connectivity | OMNIMATE® Power BUF 10.16  
 PUSH IN PCB connector, 16mm<sup>2</sup>, with wire-ready function

- PUSH IN technology with settable wire-ready contact point simplifies the connection of stranded wires without wire-end ferrules and wires with particularly rigid insulation
- Direct and tool-free connection of solid wires and wires with crimped wire-end ferrules for fast and safe wiring
- Single-hand operation of the plug-in connector and automatic connection thanks to the middle flange with snap-on mechanism and optionally with additional screw fastening

**General ordering data**

Version	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4, 180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box
Order No.	<a href="#">2493200000</a>
Type	BUF 10.16IT/04/180MF2 AG BK BX
GTIN (EAN)	4050118502787
Qty.	24 items
Product data	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup> UL: 600 V / 51 A / AWG 12 - AWG 6
Packaging	Box

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**Technical data**
**Approvals**

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E60693

**Dimensions and weights**

Depth	39.5 mm	Depth (inches)	1.5551 inch
Height	33.3 mm	Height (inches)	1.311 inch
Width	50.8 mm	Width (inches)	2 inch
Net weight	53.56 g		

**Environmental Product Compliance**

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

**System Parameters**

Product family	OMNIMATE Power - series BU/SU 10.16	Type of connection	Field connection
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	10.16 mm
Pitch in inches (P)	0.400 "	Conductor outlet direction	180°
Number of poles	4	L1 in mm	40.64 mm
L1 in inches	1.600 "	Number of rows	1
Pin series quantity	1	Rated cross-section	16 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
Protection degree	IP20	Can be coded	Yes
Stripping length	18 mm	Screwdriver blade	0.8 x 4.0
Screwdriver blade standard	DIN 5264	Plugging cycles	25
Plugging force/pole, max.	15 N	Pulling force/pole, max.	15 N

**Material data**

Insulating material	PA GF	Colour	black
Colour of operational elements	red, grey	Colour chart (similar)	RAL 9011
Insulating material group	II	Comparative Tracking Index (CTI)	≥ 400
Insulation resistance	≥ 10 <sup>8</sup> Ω	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	silver-plated	Layer structure of plug contact	≥ 3 μm Ag
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-50 °C	Operating temperature, max.	120 °C

**Conductors suitable for connection**

Clamping range, min.	2.5 mm <sup>2</sup>
Clamping range, max.	16 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 12
Wire connection cross section AWG, max.	AWG 4
Solid, min. H05(07) V-U	2.5 mm <sup>2</sup>
Solid, max. H05(07) V-U	10 mm <sup>2</sup>

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Stranded, min. H07V-R	10 mm <sup>2</sup>
Stranded, max. H07V-R	16 mm <sup>2</sup>
Flexible, min. H05(07) V-K	2.5 mm <sup>2</sup>
Flexible, max. H05(07) V-K	16 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> min.	
w. plastic collar ferrule, DIN 46228 pt 4, 16 mm <sup>2</sup> max.	
w. wire end ferrule, DIN 46228 pt 1, min.	2.5 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	16 mm <sup>2</sup>

Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm <sup>2</sup>	
wire end ferrule		Stripping length	nominal	20 mm
		Recommended wire-end ferrule	<a href="#">H2,5/25D BL</a>	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	<a href="#">H2,5/18</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	4 mm <sup>2</sup>	
		Stripping length	nominal	20 mm
		Recommended wire-end ferrule	<a href="#">H4,0/26D GR</a>	
wire end ferrule		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	<a href="#">H4,0/18</a>	
		Stripping length	nominal	20 mm
		Recommended wire-end ferrule	<a href="#">H4,0/26 SW</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	6 mm <sup>2</sup>	
		Stripping length	nominal	20 mm
		Recommended wire-end ferrule	<a href="#">H6,0/26 SW</a>	
wire end ferrule		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	<a href="#">H6,0/18</a>	
		Stripping length	nominal	21 mm
		Recommended wire-end ferrule	<a href="#">H10,0/28 EB</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	10 mm <sup>2</sup>	
		Stripping length	nominal	21 mm
		Recommended wire-end ferrule	<a href="#">H10,0/28 EB</a>	
wire end ferrule		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	<a href="#">H10,0/18</a>	
		Stripping length	nominal	21 mm
		Recommended wire-end ferrule	<a href="#">H16,0/28 GN</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	16 mm <sup>2</sup>	
		Stripping length	nominal	21 mm
		Recommended wire-end ferrule	<a href="#">H16,0/28 GN</a>	
wire end ferrule		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	<a href="#">H16,0/18</a>	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	<a href="#">H16,0/18</a>	

Reference text Length of ferrules is to be chosen depending on the product and the rated voltage.

### Rated data acc. to IEC

Rated current, min. number of poles (Tu=20°C)	76 A	Rated current, max. number of poles (Tu=20°C)	71 A
Rated current, min. number of poles (Tu=40°C)	70 A	Rated current, max. number of poles (Tu=40°C)	62 A

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## Technical data

Rated voltage for surge voltage class / pollution degree II/2	1000 V	Rated voltage for surge voltage class / pollution degree III/2	1000 V
Rated voltage for surge voltage class / pollution degree III/3	1000 V	Rated impulse voltage for surge voltage class/ pollution degree II/2	8 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 800A		

### Rated data acc. to UL 1059

Institute (cURus)	CURUS	Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated current (Use group B / UL 1059)	51 A	Rated current (Use group C / UL 1059)	51 A
Wire cross-section, AWG, min.	AWG 12	Wire cross-section, AWG, max.	AWG 6
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

### Packing

Packaging	Box	VPE length	356.00 mm
VPE width	185.00 mm	VPE height	76.00 mm

### Type tests

Test: Durability of markings	Standard	IEC 60068-2-70 / 12.95		
	Test	mark of origin, type identification, pitch, durability, stripping length		
	Evaluation	available		
Test: Clampable cross section	Standard	IEC 60999-1:1999-11 section 9.1, IEC 60947-1:2011-03 section 8.2.4.5.1		
	Conductor type	Type of conductor and conductor cross-section	stranded 2.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	solid 2.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 16 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	solid 10 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	AWG 12/1	
		Type of conductor and conductor cross-section	AWG 12/19	
		Type of conductor and conductor cross-section	AWG 4/1	
		Type of conductor and conductor cross-section	AWG 4/19	
Evaluation	passed			
Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1:1999-11 section 9.4 bzw. section 8.10		
	Requirement	0.7 kg		
	Conductor type	Type of conductor and conductor cross-section	H07V-K2.5	

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		Type of conductor and conductor cross-section	H07V-U2.5
		Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 14/19
	Evaluation	passed	
	Requirement	2.9 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-K16
		Type of conductor and conductor cross-section	H07V-U16
	Evaluation	passed	
	Requirement	4,5 kg	
	Conductor type	Type of conductor and conductor cross-section	AWG 4/7
		Type of conductor and conductor cross-section	AWG 4/19
Pull-out test	Standard	IEC 60999-1:1999-11 section 9.5	
	Requirement	≥50 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 14/1
		Type of conductor and conductor cross-section	AWG 14/19
		Type of conductor and conductor cross-section	H07V-K2.5
		Type of conductor and conductor cross-section	H07V-U2.5
	Evaluation	passed	
	Requirement	≥100 N	
	Conductor type	Type of conductor and conductor cross-section	H07V-K16
		Type of conductor and conductor cross-section	H07V-U16
	Evaluation	passed	
	Requirement	≥ 135 N	
	Conductor type	Type of conductor and conductor cross-section	AWG 4/7
		Type of conductor and conductor cross-section	AWG4/19
	Evaluation	passed	

**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.

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### Notes

- Additional variants 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
- 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.
- For all applications with flange we recommend to fix the pin header with the help of the soldering flange or a self-tapping screw on the board.
- 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

### Classifications

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

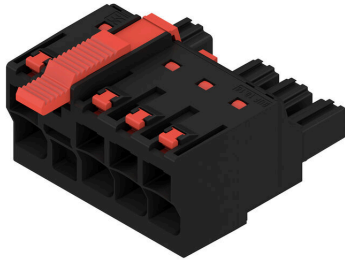
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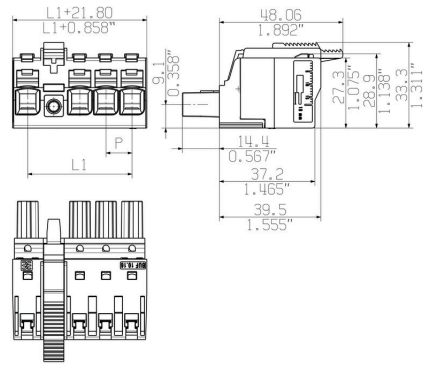
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Drawings

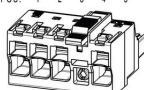
Product image



Dimensional drawing



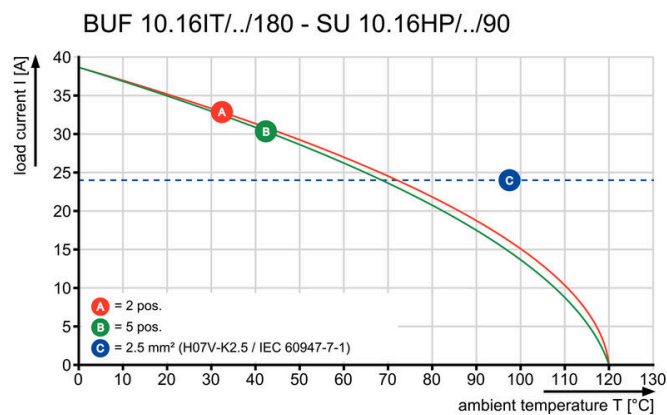
Connection diagram

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	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
						

Graph



Graph



Easy connection of conductors WIRE READY

Product benefits



Easy connection of conductors WIRE READY

**Product benefits**



Quick wiring

**Product benefits**



Single-handed operation Automatic latching