

## OMNIMATE Power - series BU/SU 10.16 BUF 10.16IT/03/180MF2 AG BK BX

**Weidmüller Interface GmbH & Co. KG**  
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### Product image

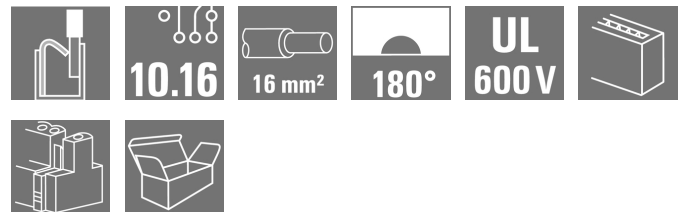


Abbildung ähnlich

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

Type	BUF 10.16IT/03/180MF2 AG BK BX
Order No.	<a href="#">2493 180000</a>
Version	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 3, 180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box
GTIN (EAN)	4050118502763
Qty.	28 pc(s).
Product data	IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup> UL: 600 V / 34 A / AWG 12 - AWG 6
Packaging	Box

Creation date May 2, 2020 9:58:00 AM CEST

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

Net weight	42.62 g
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**System Parameters**

Product family		Type of connection	
OMNIMATE Power - series BU/SU 10.16		Field connection	
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	10.16 mm
Pitch in inches (P)	0.4 inch	Conductor outlet direction	180°
Number of poles	3	L1 in mm	30.48 mm
L1 in inches	1.2 inch	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		Touch-safe protection acc. to DIN VDE 0470	
Safe from finger touch		IP 20	
Can be coded	Yes	Stripping length	18 mm
Actuating force actuating element, max.	120 N	Screwdriver blade	0.8 x 4.0
Screwdriver blade standard	DIN 5264	Plugging cycles	≤ 50
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	Material of operational elements	PA 66/6, PBT
Colour chart (similar)	RAL 9011	Insulating material group	II
Comparative Tracking Index (CTI)	≥ 400	Insulation strength	≥ 10 <sup>8</sup> Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	silver-plated
Layer structure of plug contact	3- μm Ag	Storage temperature, min.	-25 °C
Storage temperature, max.	50 °C	Max. relative humidity during storage	70 %
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>
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, 2.5 mm <sup>2</sup> min.	
w. wire end ferrule, DIN 46228 pt 1, 16 mm <sup>2</sup> max.	

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**Technical data**

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

Max. clamping range 16 mm<sup>2</sup>

**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
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	1,000 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		

**Data sheet**

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**Technical data**

**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 current (Use group B / UL 1059)	34 A	Rated current (Use group C / UL 1059)	34 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	0 m
VPE width	0 m	VPE height	0 m

**Classifications**

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02		

**Notes**

Notes

- Additional colours 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.

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.

**Approvals**

Approvals



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**Technical data****Downloads**

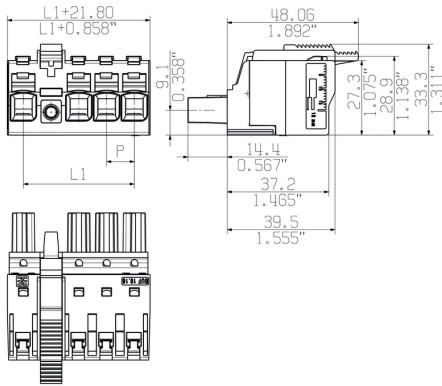
Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">STEP</a>
White paper power electronics connected correctly	<a href="#">Download Whitepaper</a>
User Documentation	<a href="#">Assembly instructions PUSH IN connector with actuator – BUF 10.16 IT</a> <a href="#">QR-Code product handling video</a>
White paper UL 600 V	<a href="#">Download Whitepaper</a>
White paper PUSH IN wire connection	<a href="#">Download Whitepaper</a>

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Drawings

Dimensional drawing

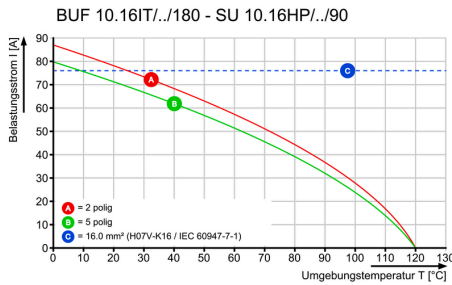


Similar to illustration

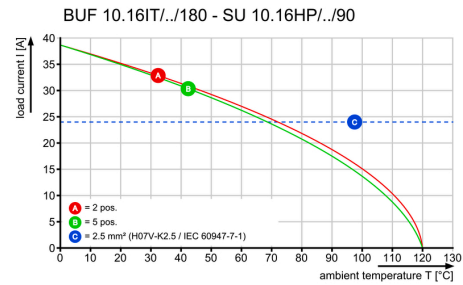
Connection diagram

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

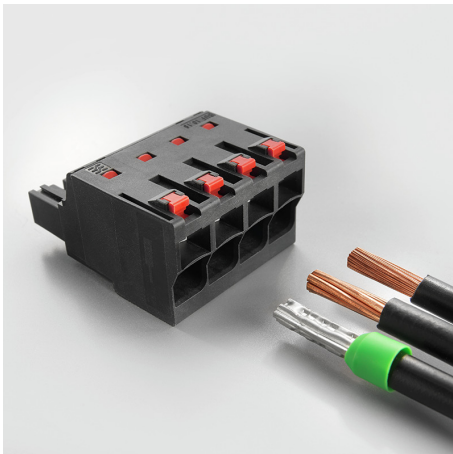
Graph



Graph



Product benefits



Easy connection of conductors  
**WIRE READY**

Product benefits



Quick wiring

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**Mating connector (fully pluggable)**
**SU 10.16HP/90MF**


Single-row, high-current male header, for side-by-side mounting without sacrificing any poles, or with patented flange for fast locking without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional fastening in the flange. 3.5 mm pin length is optimised for wave soldering, plug-in direction 90° to solder pins.

**General ordering data**

Type	SU 10.16HP/03/90MF2 3.5 ...	Version	Product data	Packaging
Order No.	<a href="#">2580390000</a>	PCB plug-in connector, male header, closed side, Middle flange, THT	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4050118589344	solder connection, 10.16 mm, Number of poles: 3, 90°, Solder pin	UL: 300 V / 60 A	
Qty.	42 pc(s).	length (l): 3.5 mm, black, Box		

**SU 10.16IT 90MF**


Male header with middle solder flange fastening in 10.16 pitch for 400-V IT systems according to IEC 61800-5-1. UL approval in compliance with UL840 (600 V) when using leading contact. When used together with the BUZ 10.16 IT, they comply with the expanded requirements for 5.5 mm of touch protection with IT systems (400 V relative to earth), according to IEC 61800-5-1. With its isolated pin tips, the mating profile ensures that more than 1 mm of touch safety is present (also without a socket block) with a finger pressure of 20 N. The middle-flange interlock feature decreases the space required by one pitch width when compared to other standard solutions. Available on request with screw flange or without flange.

**General ordering data**

Type	SU 10.16IT/03/90MF2 3.5 ...	Version	Product data	Packaging
Order No.	<a href="#">1156670000</a>	PCB plug-in connector, male header, closed side, Middle flange, THT	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4032248943654	solder connection, 10.16 mm, Number of poles: 3, 90°, Solder pin	UL: 300 V / 60 A	
Qty.	42 pc(s).	length (l): 3.5 mm, silver-plated, black, Box		

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**Mating connector (fully pluggable)**
**SU 10.16IT 270MF**


Male header with middle solder flange fastening in 10.16 pitch for 400-V IT systems according to IEC 61800-5-1. UL approval in compliance with UL840 (600 V) when using leading contact. When used together with the BUZ 10.16 IT, they comply with the expanded requirements for 5.5 mm of touch protection with IT systems (400 V relative to earth), according to IEC 61800-5-1. With its isolated pin tips, the mating profile ensures that more than 1 mm of touch safety is present (also without a socket block) with a finger pressure of 20 N.

The middle-flange interlock feature decreases the space required by one pitch width when compared to other standard solutions.

Available on request with screw flange or without flange.

**General ordering data**

Type	SU 10.16IT/03/270MF2 3. ...	Version	Product data	Packaging
Order No.	<a href="#">1157320000</a>	PCB plug-in connector, male header, closed side, Middle flange, THT	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4032248944927	solder connection, 10.16 mm, Number of poles: 3, 270°, Solder pin	UL: 300 V / 60 A	
Qty.	42 pc(s).	length (l): 3.5 mm, silver-plated, black, Box		

**SU 10.16HP/270MF**


Single-row, high-performance male header for side-by-side mounting without sacrificing any poles or with patented flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional fastening in the flange. 3.5 mm pin length is optimised for wave soldering, plug-in direction 270° to solder pins.

**General ordering data**

Type	SU 10.16HP/03/270MF2 3. ...	Version	Product data	Packaging
Order No.	<a href="#">2580830000</a>	PCB plug-in connector, male header, THT solder connection, 10.16	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4050118589672	mm, Number of poles: 3, 270°, Solder pin length (l): 3.5 mm, black,	UL: 300 V / 60 A	
Qty.	42 pc(s).	Box		



## Data sheet

### OMNIMATE Power - series BU/SU 10.16 BUF 10.16IT/03/180MF2 AG BK BX

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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, Blade width (B): 4.5 mm, Blade length: 125 mm, Blade thickness (A): 0.8 mm
GTIN (EAN)	4032248266883	
Qty.	1 pc(s).	

### Coding elements



#### **Only connects what is supposed to be connected: the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

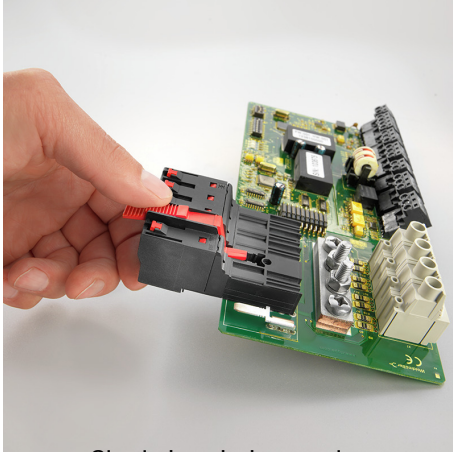
Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

### General ordering data

Type	KO BU/SU10.16HP BK	Version	Product data	Packaging
Order No.	<a href="#">1824410000</a>	PCB plug-in connector, Accessories, Coding element, black, Number of poles: 1		Box
GTIN (EAN)	4032248326716			
Qty.	50 pc(s).			

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**Product benefits**

Single-handed operation  
Automatic latching