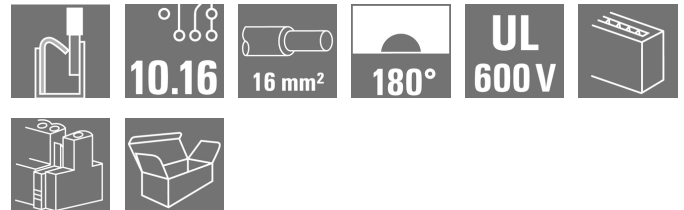


## OMNIMATE Power - series BU/SU 10.16 BUF 10.16IT/04/180MF2SH180 AG BK BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

### Product image



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

Including pre-assembled pluggable shield connection for large area shielding in your application.

Directly during the plug-in process itself, the shield connection is attached vibration-proof to the contact area of the metal housing.

### General ordering data

Type	BUF 10.16IT/04/180MF2SH180 AG BK BX
Order No.	<a href="#">2627720000</a>
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>
GTIN (EAN)	4050118631715
Qty.	20 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

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

Net weight 10.2 g

**System Parameters**

Product family		Type of connection	
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)	0.4 inch	Conductor outlet direction	180°
Number of poles	4	L1 in mm	40.64 mm
L1 in inches	1.6 inch	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	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		Colour	
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	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		

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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**

VPE length 0.37 m

VPE width 0.17 m

VPE height 0.11 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

**Downloads**White paper power electronics  
connected correctly[Download Whitepaper](#)

White paper UL 600 V

[Download Whitepaper](#)

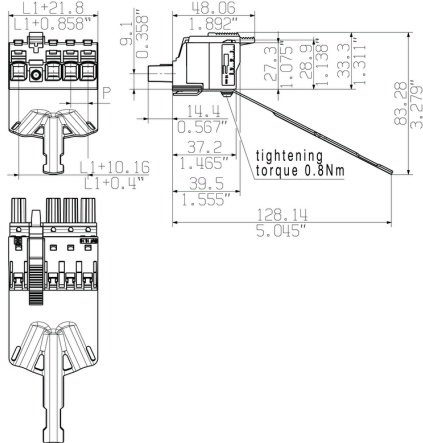
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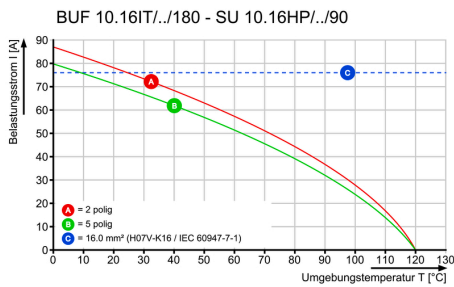
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**Drawings**

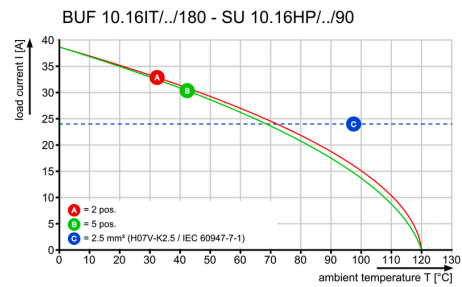
**Dimensional drawing**



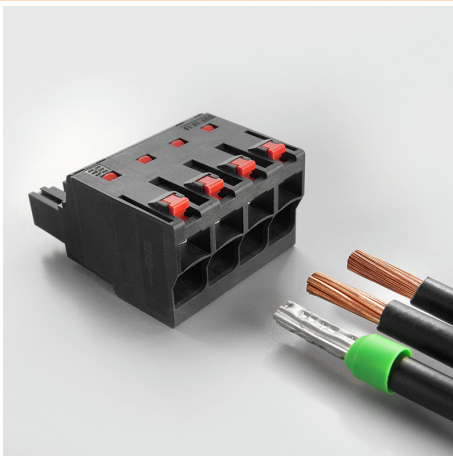
**Graph**



**Graph**

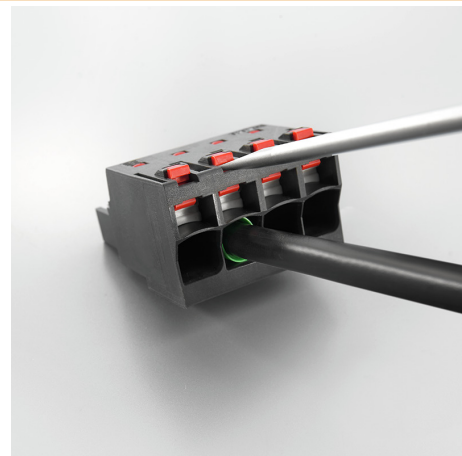


**Product benefits**



Easy connection of conductors  
**WIRE READY**

**Product benefits**



Quick wiring

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**Mating connector (fully pluggable)**
**SU 10.16IT 90MSF**


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/04/90MSF2 3. ...	Version	Product data
Order No.	<a href="#">2630150000</a>	PCB plug-in connector, male header, 10.16 mm, Number of poles: 4,	IEC: / 78.3 A
GTIN (EAN)	4050118633825	Solder pin length (l): 3.5 mm, black	UL:
Qty.	36 pc(s).		

**SU 10.16IT 270MSF**


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/04/270MSF2 3. ...	Version	Product data
Order No.	<a href="#">2630220000</a>	PCB plug-in connector, male header, 10.16 mm, Number of poles: 4,	IEC: / 78.3 A
GTIN (EAN)	4050118633894	Solder pin length (l): 3.5 mm, black	UL:
Qty.	36 pc(s).		

## OMNIMATE Power - series BU/SU 10.16 BUF 10.16IT/04/180MF2SH180 AG BK BX

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# Accessories

### 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		Box
GTIN (EAN)	4032248326716	of poles: 1		
Qty.	50 pc(s).			

### Slotted screwdriver

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

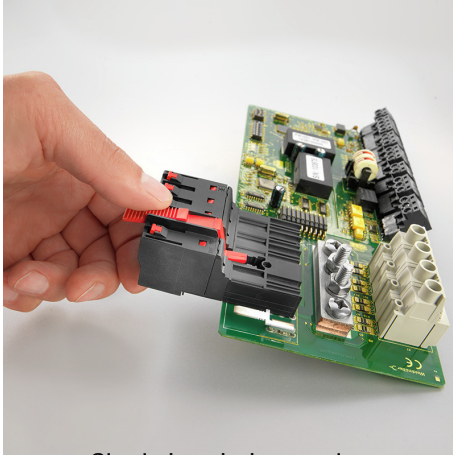


### General ordering data

Type	SDS 0.8X4.5X125	Version
Order No.	<a href="#">9009020000</a>	Screwdriver, Blade width (B): 4.5 mm, Blade length: 125 mm, Blade
GTIN (EAN)	4032248266883	thickness (A): 0.8 mm
Qty.	1 pc(s).	

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**Product benefits**

Single-handed operation  
Automatic latching