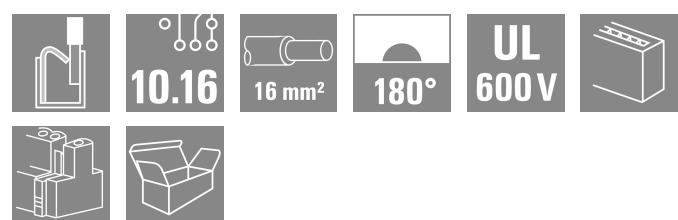
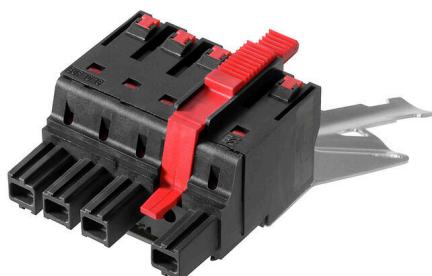


## BUF 10.16IT/04/180MF2SH180 AG BK BX

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

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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

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="#">2627720000</a>
Type	BUF 10.16IT/04/180MF2SH180 AG BK BX
GTIN (EAN)	4050118631715
Qty.	20 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	122.1 mm
Height	79.1 mm
Width	50.8 mm
Net weight	10.2 g

Depth (inches)	4.8071 inch
Height (inches)	3.1142 inch
Width (inches)	2 inch

## 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 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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## Technical data

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.												
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											
Clampable conductor	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											
Clampable conductor	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>											
Clampable conductor	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.
	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.											

## 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/3	1000 V
Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV
Short-time withstand current resistance	3 x 1s with 800A

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

## Rated data acc. to UL 1059

Institute (cURus)	CURUS
Rated voltage (Use group B / UL 1059)	600 V
Rated current (Use group B / UL 1059)	51 A
Wire cross-section, AWG, min.	AWG 12
Reference to approval values	Specifications are maximum values, details - see approval certificate.

Certificate No. (cURus)	E60693
Rated voltage (Use group C / UL 1059)	600 V
Rated current (Use group C / UL 1059)	51 A
Wire cross-section, AWG, max.	AWG 6

## Packing

Packaging	Box	VPE length	0.37 m
VPE width	0.17 m	VPE height	0.11 m

## 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
Test: Clampable cross section	Conductor type	Type of conductor stranded 2.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor solid 2.5 mm <sup>2</sup> and conductor cross-section
		Type of conductor stranded 16 mm <sup>2</sup> and conductor cross-section
		Type of conductor solid 10 mm <sup>2</sup> and conductor cross-section
		Type of conductor AWG 12/1 and conductor cross-section
		Type of conductor AWG 12/19 and conductor cross-section
		Type of conductor AWG 4/1 and conductor cross-section
		Type of conductor AWG 4/19 and conductor cross-section
	Evaluation	passed
	Standard	IEC 60999-1:1999-11 section 9.4 bzw. section 8.10
Test for damage to and accidental loosening of conductors	Requirement	0.7 kg
	Conductor type	Type of conductor H07V-K2.5 and conductor cross-section

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## Technical data

Pull-out test	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
	Evaluation	passed
	Requirement	4,5 kg
Pull-out test	Conductor type	Type of conductor and conductor cross-section
		AWG 4/7
		Type of conductor and conductor cross-section
	Evaluation	passed
	Requirement	4,5 kg
	Conductor type	Type of conductor and conductor cross-section
		AWG 4/19
		Type of conductor and conductor cross-section
	Evaluation	passed
	Requirement	≥50 N
Pull-out test	Conductor type	Type of conductor and conductor cross-section
		AWG 14/1
		Type of conductor and conductor cross-section
	Evaluation	passed
	Requirement	≥100 N
	Conductor type	Type of conductor and conductor cross-section
		H07V-K16
		Type of conductor and conductor cross-section
	Evaluation	passed
	Requirement	≥ 135 N
Pull-out test	Conductor type	Type of conductor and conductor cross-section
		AWG 4/7
		Type of conductor and conductor cross-section
	Evaluation	passed
	Requirement	≥ 135 N
	Conductor type	Type of conductor and conductor cross-section
		AWG4/19
		Type of conductor and conductor cross-section
	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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**Technical data****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

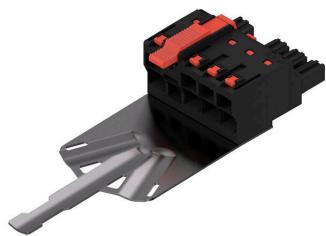
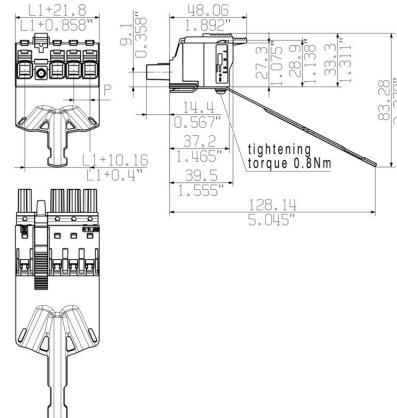
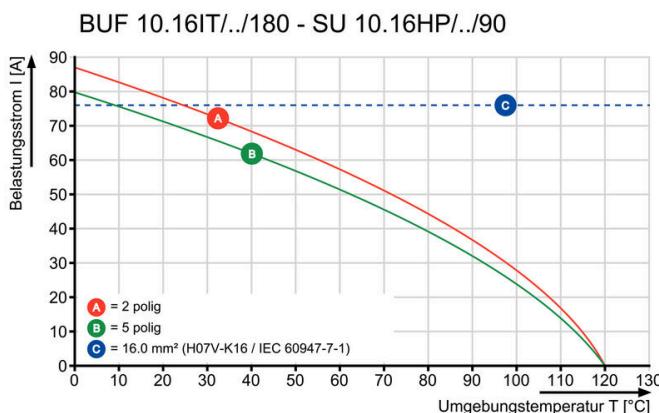
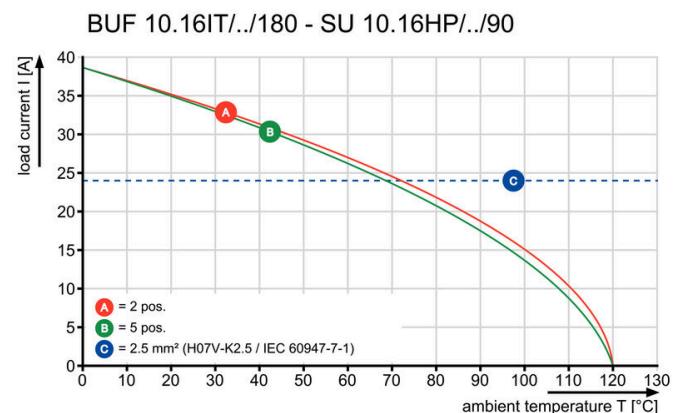
**Classifications**

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		

**BUF 10.16IT/04/180MF2SH180 AG BK BX**

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**Drawings****Product image****Dimensional drawing****Graph****Graph****Product benefits**

Easy connection of conductors WIRE READY

**Product benefits**

Quick wiring

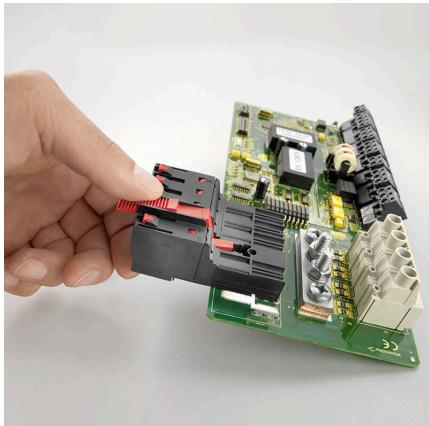
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## Drawings

### Product benefits



Single-handed operation Automatic latching

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## Accessories

## 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 product configurator.

## General ordering data

Type	KO BU/SU10.16HP BK	Version
Order No.	<a href="#">1824410000</a>	PCB plug-in connector, Accessories, Coding element, black, Number
GTIN (EAN)	4032248326716	of poles: 1
Qty.	50 ST	
Type	KO BU/SU10.16HP WT	Version
Order No.	<a href="#">2592600000</a>	PCB plug-in connector, Accessories, Coding element, Natural, Number
GTIN (EAN)	4050118717389	of poles: 1
Qty.	50 ST	

## 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 ST	

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## Counterpart

## 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. 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/04/270MSF 3...	Version
Order No.	<a href="#">2630220000</a>	PCB plug-in connector, male header, THT solder connection, 10.16
GTIN (EAN)	4050118633894	mm, Number of poles: 4, 270°, Solder pin length (l): 3.5 mm, tinned,
Qty.	36 ST	black, Box

## 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. 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/04/90MSF 3....	Version
Order No.	<a href="#">2630150000</a>	PCB plug-in connector, male header, THT solder connection, 10.16
GTIN (EAN)	4050118633825	mm, Number of poles: 4, 90°, Solder pin length (l): 3.5 mm, tinned,
Qty.	36 ST	black, Box