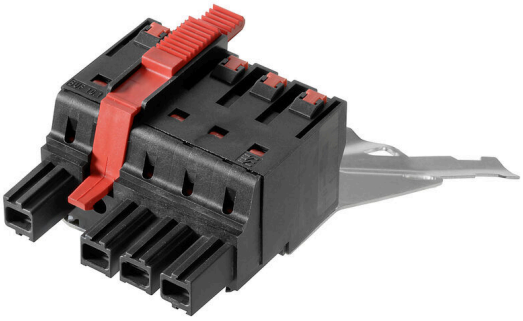
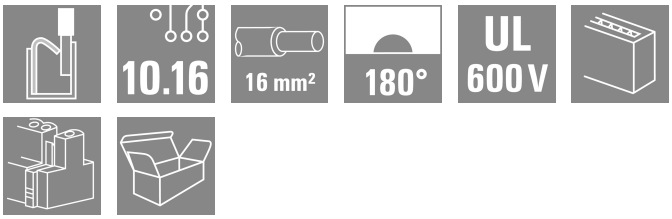
Data sheet

BUF 10.16IT/04/180MF4SH200 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, 16mm², 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 mm², Box
Order No.	2627800000
Type	BUF 10.16IT/04/180MF4SH200 AG BK BX
GTIN (EAN)	4050118631791
Qty.	20 items
Product data	IEC: 1000 V / 76 A / 2.5 - 16 mm² UL: 600 V / 51 A / AWG 12 - AWG 6
Packaging	Box
Delivery status	Discontinued

BUF 10.16IT/04/180MF4SH200 AG BK BX

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Technical data

Approvals

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

Dimensions and weights

Depth	122.1 mm	Depth (inches)	4.8071 inch
Height	79.1 mm	Height (inches)	3.1142 inch
Width	50.8 mm	Width (inches)	2 inch
Net weight	0 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 mm²
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	≥ 10^8 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 mm²
Clamping range, max.	16 mm²
Wire connection cross section AWG, min.	AWG 12
Wire connection cross section AWG, max.	AWG 4
Solid, min. H05(07) V-U	2.5 mm²
Solid, max. H05(07) V-U	10 mm²
Stranded, min. H07V-R	10 mm²

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Technical data

Stranded, max. H07V-R	16 mm²			
Flexible, min. H05(07) V-K	2.5 mm²			
Flexible, max. H05(07) V-K	16 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, min.	2.5 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, max.	16 mm²			
w. wire end ferrule, DIN 46228 pt 1, min.	2.5 mm²			
w. wire end ferrule, DIN 46228 pt 1, max.	16 mm²			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm²	
	wire end ferrule	Stripping length	nominal	20 mm
		Recommended wire-end ferrule	H2,5/25D BL	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H2,5/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	4 mm²	
	wire end ferrule	Stripping length	nominal	20 mm
		Recommended wire-end ferrule	H4,0/26D GR	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H4,0/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	6 mm²	
	wire end ferrule	Stripping length	nominal	20 mm
		Recommended wire-end ferrule	H6,0/26 SW	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H6,0/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	10 mm²	
	wire end ferrule	Stripping length	nominal	21 mm
		Recommended wire-end ferrule	H10,0/28 EB	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H10,0/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	16 mm²	
	wire end ferrule	Stripping length	nominal	21 mm
		Recommended wire-end ferrule	H16,0/28 GN	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H16,0/18	
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	352.00 mm
VPE width	162.00 mm	VPE height	105.00 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 mm²
		Type of conductor and conductor cross-section	solid 2.5 mm²
		Type of conductor and conductor cross-section	stranded 16 mm²
		Type of conductor and conductor cross-section	solid 10 mm²
		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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Technical data

		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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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		

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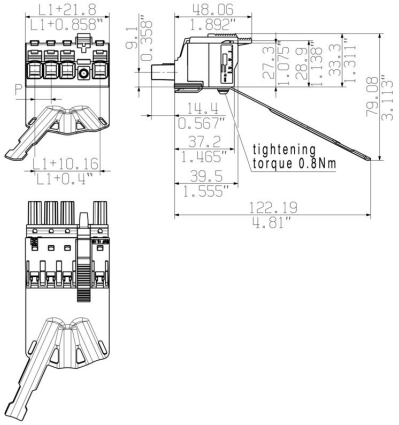
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Drawings

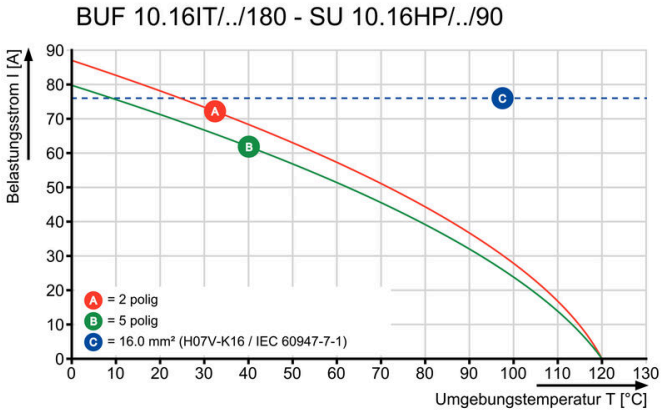
Product image



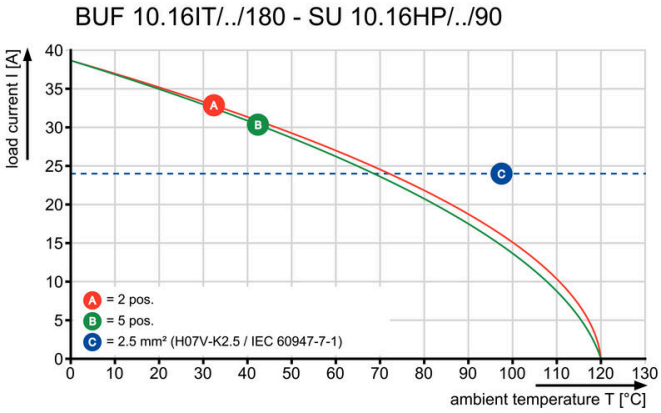
Dimensional drawing



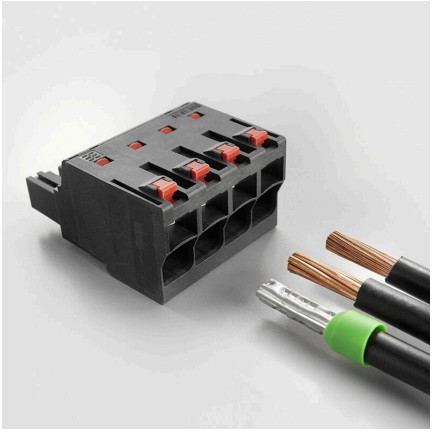
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Graph

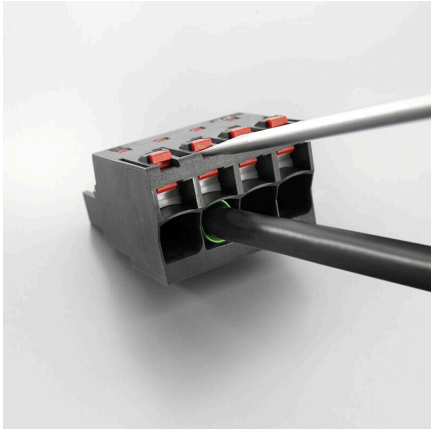


Product benefits



Easy connection of conductorsWIRE READY

Product benefits



Quick wiring

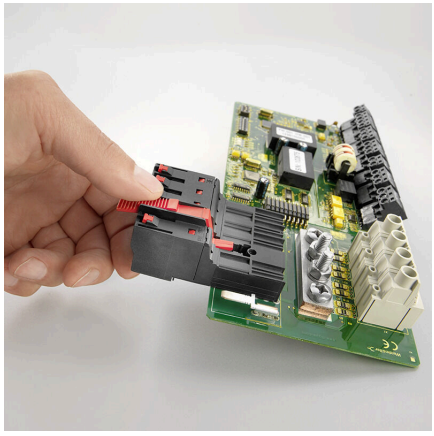
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Drawings

Product benefits



Single-handed operationAutomatic 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 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² 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.	1824410000	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.	2592600000	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.	9009020000	Screwdriver, Screwdriver
GTIN (EAN)	4032248266883	
Qty.	1 ST	

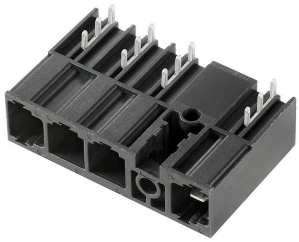
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Counterpart

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/04/270MSF4 3...	Version
Order No.	2630250000	PCB plug-in connector, male header, THT solder connection, 10.16
GTIN (EAN)	4050118633924	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/04/90MSF4 3....	Version
Order No.	2630180000	PCB plug-in connector, male header, THT solder connection, 10.16
GTIN (EAN)	4050118633856	mm, Number of poles: 4, 90°, Solder pin length (l): 3.5 mm, tinned,
Qty.	36 ST	black, Box