

## SUZ 10.16HP/08/180G AG BK BX

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

www.weidmueller.com

### Product image



OMNIMATE Power BU / SU 10.16HP - the 50 kVA power class

More current for higher performance.

Top of the class in today's connector systems – the OMNIMATE Power SU / BUZ 10.16HP. They feature a very durable contact system which makes it a pluggable power transmission solution with maximum load reserves. HP stands for High Performance – performance exemplified by a long-term usage temperature of 120°C. This custom, pluggable solution is suitable for all applications that must meet 600 V UL or 1,000 V (IEC) with up to 76 A (IEC) and 54 A (UL).

### General ordering data

Version	PCB plug-in connector, male plug, 10.16 mm, Number of poles: 8, 180°, Clamping yoke connection, Clamping range, max. : 16 mm², Box
Order No.	<a href="#">1962400000</a>
Type	SUZ 10.16HP/08/180G AG BK BX
GTIN (EAN)	4032248644438
Qty.	16 items
Product data	IEC: 1000 V / 78 A / 0.2 - 16 mm² UL: 600 V / 57 A / AWG 24 - 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. (UR)	E60693

## Dimensions and weights

Depth	47.8 mm	Depth (inches)	1.8819 inch
Height	34.8 mm	Height (inches)	1.3701 inch
Width	60.96 mm	Width (inches)	2.4 inch
Net weight	94.48 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 10.16HP	Type of connection	Field connection
Wire connection method	Clamping yoke connection	Pitch in mm (P)	10.16 mm
Pitch in inches (P)	0.400 "	Conductor outlet direction	180°
Number of poles	8	L1 in mm	71.12 mm
L1 in inches	2.800 "	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
Volume resistance	4.50 mΩ	Can be coded	Yes
Stripping length	12 mm	Tightening torque, min.	1.2 Nm
Tightening torque, max.	1.5 Nm	Clamping screw	M 4
Screwdriver blade	1.0 x 5.5	Screwdriver blade standard	DIN 5264
Plugging cycles	25		

## Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Copper 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.	130 °C
Temperature range, installation, min.	-25 °C	Temperature range, installation, max.	130 °C

## Conductors suitable for connection

Clamping range, min.	0.2 mm <sup>2</sup>
Clamping range, max.	16 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 22

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Wire connection cross section AWG, max.	AWG 6
Solid, min. H05(07) V-U	0.2 mm <sup>2</sup>
Solid, max. H05(07) V-U	16 mm <sup>2</sup>
Stranded, min. H07V-R	6 mm <sup>2</sup>
Stranded, max. H07V-R	16 mm <sup>2</sup>
Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>
Flexible, max. H05(07) V-K	16 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm <sup>2</sup>
w. plastic collar ferrule, DIN 46228 pt 4, max.	10 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm <sup>2</sup>
w. wire end ferrule, DIN 46228 pt 1, max.	16 mm <sup>2</sup>
Plug gauge in accordance with EN 60999 a x b; ø	5.3mm (B6)

Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	0.5 mm <sup>2</sup>	
wire end ferrule		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	<a href="#">H0.5/18 OR</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	1 mm <sup>2</sup>	
		Stripping length	nominal	15 mm
wire end ferrule		Recommended wire-end ferrule	<a href="#">H1.0/18 GE</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	1.5 mm <sup>2</sup>	
		Stripping length	nominal	15 mm
wire end ferrule		Recommended wire-end ferrule	<a href="#">H1.5/18D SW</a>	
		Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H1.5/12</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	0.75 mm <sup>2</sup>	
		Stripping length	nominal	14 mm
wire end ferrule		Recommended wire-end ferrule	<a href="#">H0.75/18 W</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	2.5 mm <sup>2</sup>	
		Stripping length	nominal	14 mm
wire end ferrule		Recommended wire-end ferrule	<a href="#">H2.5/19D BL</a>	
		Stripping length	nominal	12 mm
		Recommended wire-end ferrule	<a href="#">H2.5/12</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	4 mm <sup>2</sup>	
		Stripping length	nominal	12 mm
wire end ferrule		Recommended wire-end ferrule	<a href="#">H4.0/12</a>	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	<a href="#">H4.0/20D GR</a>	
Cross-section for conductor connection		Type	fine-wired	
		nominal	6 mm <sup>2</sup>	
		Stripping length	nominal	14 mm

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**Technical data**

		Recommended wire-end ferrule	<a href="#">H6.0/20 SW</a>
		Stripping length	nominal 12 mm
		Recommended wire-end ferrule	<a href="#">H6.0/12</a>
Cross-section for conductor connection	Type	fine-wired	
	nominal	10 mm <sup>2</sup>	
wire end ferrule	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	<a href="#">H10.0/12</a>	
	Stripping length	nominal	15 mm
Cross-section for conductor connection	Type	fine-wired	
	nominal	16 mm <sup>2</sup>	
wire end ferrule	Stripping length	nominal	12 mm
	Recommended wire-end ferrule	<a href="#">H16.0/12</a>	

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

**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	78 A
Rated current, max. number of poles (Tu=20°C)	68 A	Rated current, min. number of poles (Tu=40°C)	72 A
Rated current, max. number of poles (Tu=40°C)	61 A	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	6 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
Creepage distance, min.	14.8 mm	Clearance, min.	14.8 mm

**Rated data acc. to CSA**

Institute (CSA)	CSA	Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	57 A
Rated current (Use group C / CSA)	57 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 6
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**Rated data acc. to UL 1059**

Institute (UR)	UR	Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V	Rated voltage (Use group F / UL 1059)	1000 V
Rated current (Use group B / UL 1059)	57 A	Rated current (Use group C / UL 1059)	57 A
Rated current (Use group D / UL 1059)	5 A	Rated current (Use group F / UL 1059)	57 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 6
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

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**Technical data**

**Packing**

Packaging	Box	VPE length	352.00 mm
VPE width	135.00 mm	VPE height	60.00 mm

**Type tests**

Test: Durability of markings	Standard	taking pattern from DIN EN 60068-2-70 / 07.96	
	Test	date clock, mark of origin, type identification, type of material	
	Evaluation	available	
	Test	durability	
Test: Misengagement (Non-interchangeability)	Evaluation	passed	
	Standard	DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 60512 part 7 section 5 / 05.94	
	Test	180° turned with coding elements	
	Evaluation	passed	
Test: Clampable cross section	Test	180° turned without coding elements	
	Evaluation	passed	
	Standard	DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02	
	Conductor type	Type of conductor and conductor cross-section	solid 0.2 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 0.2 mm <sup>2</sup>
		Type of conductor and conductor cross-section	solid 16 mm <sup>2</sup>
		Type of conductor and conductor cross-section	stranded 16 mm <sup>2</sup>
		Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
		Type of conductor and conductor cross-section	AWG 6/1
		Type of conductor and conductor cross-section	AWG 6/19
	Evaluation	passed	
	Test for damage to and accidental loosening of conductors	Standard	DIN EN 60999-1 section 9.4 / 12.00
Requirement		0.2 kg	
Conductor type		Type of conductor and conductor cross-section	AWG 24/1
		Type of conductor and conductor cross-section	AWG 24/19
Evaluation		passed	
Requirement		0.3 kg	
Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm <sup>2</sup>	
	Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>	

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**Technical data**

	Evaluation	passed		
	Requirement	2.9 kg		
	Conductor type	Type of conductor and conductor cross-section	solid 16 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 16 mm <sup>2</sup>	
	Evaluation	passed		
	Requirement	0,9 kg		
	Conductor type	Type of conductor and conductor cross-section	AWG 6/7	
		Type of conductor and conductor cross-section	AWG 6/19	
Pull-out test	Evaluation	passed		
	Standard	DIN EN 60999-1 section 9.5 / 12.00		
	Requirement	≥10 N		
	Conductor type	Type of conductor and conductor cross-section	AWG 24/1	
		Type of conductor and conductor cross-section	AWG 24/19	
	Evaluation	passed		
	Requirement	≥20 N		
	Conductor type	Type of conductor and conductor cross-section	solid 0.5 mm <sup>2</sup>	
		Type of conductor and conductor cross-section	stranded 0.5 mm <sup>2</sup>	
	Evaluation	passed		
	Requirement	≥100 N		
	Conductor type	Type of conductor and conductor cross-section	solid 16 mm <sup>2</sup>	
Type of conductor and conductor cross-section		stranded 16 mm <sup>2</sup>		
Type of conductor and conductor cross-section		AWG 6/7		
Type of conductor and conductor cross-section		AWG 6/19		
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.

- Notes**
- Additional variants on request
  - Rated current related to rated cross-section & min. No. of poles.
  - Wire end ferrule without plastic collar to DIN 46228/1
  - Wire end ferrule with plastic collar to DIN 46228/4
  - 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.

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## Technical data

- 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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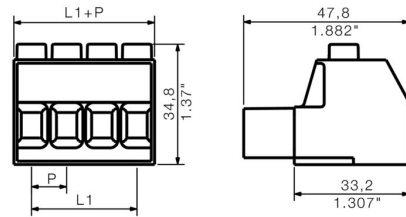
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Drawings

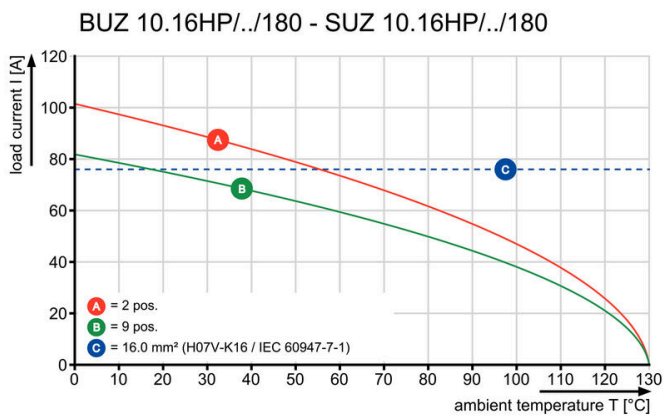
Product image



Dimensional drawing



Graph



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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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**Accessories**

**Crosshead screwdriver Phillips**



Crosshead screwdriver, Phillips, SDK PH DIN 5262, ISO 8764/2-PH, output to ISO 8764-PH, ChromTop tip, SoftFinish grip

**General ordering data**

Type	SDK PH1	Version	
Order No.	<a href="#">9008480000</a>	Screwdriver, Screwdriver	
GTIN (EAN)	4032248056477		
Qty.	1 ST		