

## BUZ 10.16IT/04/180MF4 AG BK BX

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

www.weidmueller.com



180° female plug with 10.16 pitch for IT power networks. Meets the requirements of UL1059 600 V class C. In combination with male header SU 10.16 IT with leading contact.

Meets the extended requirements on 5.5 mm touch safety for IT power networks as per IEC 61800-5-1 for 400 V to earth.

The self-locking (optionally also screwable) middle flange reduces the space requirements by one pitch width in comparison with conventional solutions.

Also optionally available without middle flange interlock.

### General ordering data

Version	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4, 180°, Clamping yoke connection, Clamping range, max. : 16 mm², Box
Order No.	<a href="#">1156640000</a>
Type	BUZ 10.16IT/04/180MF4 AG BK BX
GTIN (EAN)	4032248943616
Qty.	18 items
Product data	IEC: 1000 V / 78.3 A / 0.2 - 16 mm² UL: 600 V / 60 A / AWG 22 - AWG 4
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	52.3 mm	Depth (inches)	2.0591 inch
Height	36 mm	Height (inches)	1.4173 inch
Width	51.9 mm	Width (inches)	2.0433 inch
Net weight	56.82 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 10.16IT	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	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
Volume resistance	4.50 mΩ	Can be coded	Yes
Stripping length	12 mm	Tightening torque, min.	1.2 Nm
Tightening torque, max.	2 Nm	Clamping screw	M 4
Screwdriver blade	1.0 x 5.5	Screwdriver blade standard	DIN 5264, ISO 8764/2-PZ
Plugging cycles	25	Plugging force/pole, max.	14.5 N
Pulling force/pole, max.	14.5 N		

## 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	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.	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 4		
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.	16 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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	1 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 15 mm
		Recommended wire-end ferrule	<a href="#">H1.0/18 GE</a>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	1.5 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 15 mm
		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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.75 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 14 mm
		Recommended wire-end ferrule	<a href="#">H0.75/18 W</a>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	2.5 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 14 mm
		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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	4 mm <sup>2</sup>
wire end ferrule		Stripping length	nominal 12 mm
		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>
Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	6 mm <sup>2</sup>
wire end ferrule		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
		Recommended wire-end ferrule	<a href="#">H10.0/22 EB</a>
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>
		Stripping length	nominal 15 mm
		Recommended wire-end ferrule	<a href="#">H16.0/22 GN</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)	78.3 A
Rated current, max. number of poles (Tu=20°C)	67.9 A	Rated current, min. number of poles (Tu=40°C)	70.6 A
Rated current, max. number of poles (Tu=40°C)	61.3 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 mit 1000 A
Creepage distance, min.	15.1 mm	Clearance, min.	15.1 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)	60 A
Rated current (Use group C / CSA)	60 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 22	Wire cross-section, AWG, max.	AWG 4
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

**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 voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	60 A
Rated current (Use group C / UL 1059)	60 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 22	Wire cross-section, AWG, max.	AWG 4
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	140.00 mm	VPE height	61.00 mm

### 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	<ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• 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.</li> <li>• 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</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul>

### 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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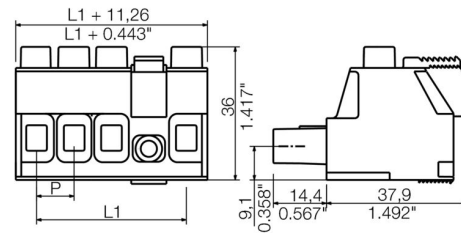
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Drawings

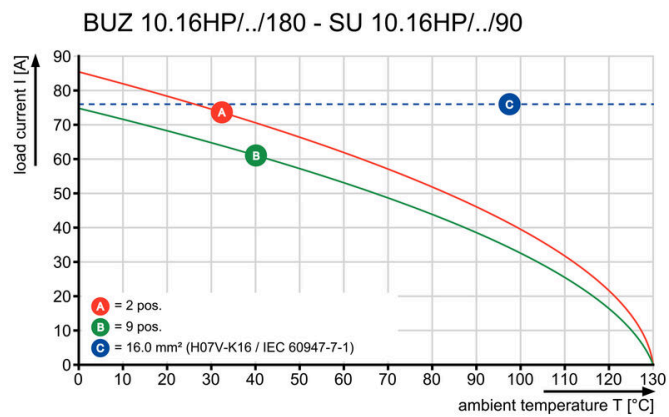
Product image



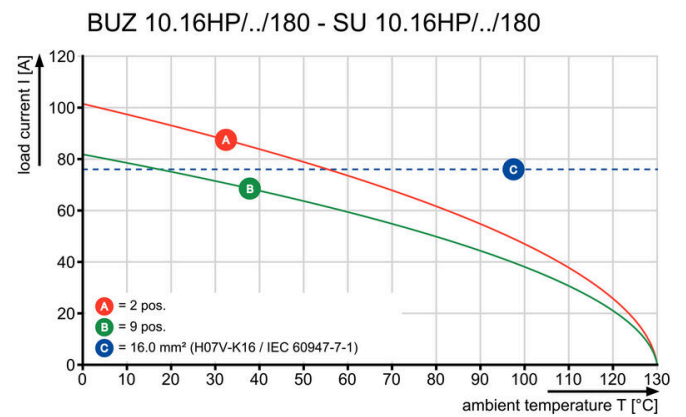
Dimensional drawing



Graph



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		

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## Counterpart

## SU 10.16IT 270MF

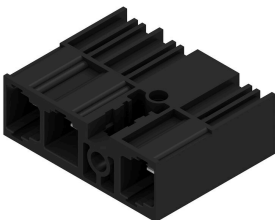


Male header with middle solder flange fastening in 10.16 pitch for 400-V IT systems according to IEC 61800-5-1. UL approval in compliance with UL840 (600 V) when using leading contact. When used together with the BUZ 10.16 IT, they comply with the expanded requirements for 5.5 mm of touch protection with IT systems (400 V relative to earth), according to IEC 61800-5-1. 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/04/270MF4 3...	Version
Order No.	<a href="#">1157350000</a>	PCB plug-in connector, male header, closed side, Middle flange, THT
GTIN (EAN)	4032248944767	solder connection, 10.16 mm, Number of poles: 4, 270°, Solder pin
Qty.	36 ST	length (l): 3.5 mm, silver-plated, black, Box

## SU 10.16IT 90MF

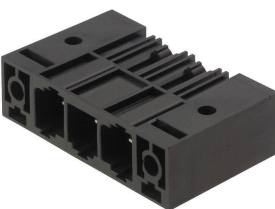


Male header with middle solder flange fastening in 10.16 pitch for 400-V IT systems according to IEC 61800-5-1. UL approval in compliance with UL840 (600 V) when using leading contact. When used together with the BUZ 10.16 IT, they comply with the expanded requirements for 5.5 mm of touch protection with IT systems (400 V relative to earth), according to IEC 61800-5-1. 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/04/90MF4 3.5...	Version
Order No.	<a href="#">1156700000</a>	PCB plug-in connector, male header, closed side, Middle flange, THT
GTIN (EAN)	4032248943715	solder connection, 10.16 mm, Number of poles: 4, 90°, Solder pin
Qty.	36 ST	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.

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### General ordering data

Type	SU 10.16HP/04/270MF4 3...	Version
Order No.	<a href="#">2580880000</a>	PCB plug-in connector, male header, THT solder connection, 10.16
GTIN (EAN)	4050118589498	mm, Number of poles: 4, 270°, Solder pin length (l): 3.5 mm, tinned,
Qty.	36 ST	black, Box

### 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/04/90MF4 3.5...	Version
Order No.	<a href="#">2580430000</a>	PCB plug-in connector, male header, closed side, Middle flange, THT
GTIN (EAN)	4050118589382	solder connection, 10.16 mm, Number of poles: 4, 90°, Solder pin
Qty.	36 ST	length (l): 3.5 mm, silver-plated, black, Box