

#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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# OMNIMATE Power for IT networks - scalable to 50 kVA Tailor-made solutions for special requirements More standard-compliance means fewer compromises: OMNIMATE Power for IT networks has integrated features incorporated as standard across the range. This makes the design-in and approvals process simpler and makes them safer and more reliable in operation. Results for the application and advantages for the user: unlimited use in 400-V IT systems and touch safety according to IEC 61800-5-1 (+ 5.5 mm). The self-snapping one-handed safety flange enables intuitive and safe usage. Operational reliability is guaranteed by the automatic interlock feature during the plug-in process. In conclusion: You need no additional device covering. The application-oriented design means that no compromises are necessary during the approval process. Including pre-assembled pluggable shield connection for large area shielding in your application.

### General ordering data

Version	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4, 180°, Clamping yoke connec- tion, Clamping range, max.: 16 mm², Box
Order No.	<u>2627540000</u>
Туре	BUZ 10.16IT/04/180MSF2SH180 AG BK BX
GTIN (EAN)	4050118631425
Qty.	20 items
Product data	IEC: 1000 V / 78.3 A / 0.2 - 16 mm² UL: 600 V / 60 A / AWG 22 - AWG 4
Packaging	Вох





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# **Technical data**

Α	n	n	r	o	v	a	ls

RUHS	Conform				
Dimensions and weights					
Depth	143.5 mm	Depth (inches)	5.6496 inch		
Height	86 mm	Height (inches)	3.3858 inch		
Width	51.9 mm	Width (inches)	2.0433 inch		
Net weight	100.25 g				

#### **Environmental Product Compliance**

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6al
REACH SVHC	Lead 7439-92-1
SCIP	a9fcc928-8cc3-4126-aede-eb294a2dd7f6

#### **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 mm²
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 for screw flange, min.	0.3 Nm
Tightening torque for screw flange, max	. 0.4 Nm	Tightening torque, min.	1.2 Nm
Tightening torque, max.	2 Nm	Clamping screw	M 4
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	
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
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>

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# Technical data

Stranded, max. H07V-R	16 mm <sup>2</sup>		
lexible, min. H05(07) V-K	0.5 mm <sup>2</sup>		
lexible, max. H05(07) V-K	16 mm²		
v. plastic collar ferrule, DIN 46228 p	ot 4, 0.25 mm²		
v. plastic collar ferrule, DIN 46228 p nax.	ot 4, 16 mm²		
v. wire end ferrule, DIN 46228 pt 1,	0.25 mm <sup>2</sup>		
nin. v. wire end ferrule, DIN 46228 pt 1,	16 mm²		
nax. Ylug gauge in accordance with EN	5.3mm (B6)		
0999 a x b; ø			
lampable conductor	Cross-section for conductor connection	Туре	fine-wired
		nominal	0.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire-	H0,5/18 OR
	Cross-section for conductor connection	end ferrule Type	fina wirod
	Cross-section for conductor connection	nominal	fine-wired 1 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 15 mm
	wile ella lellale	Recommended wire-	H1.0/18 GE
		end ferrule	111,0/ 10 GE
	Cross-section for conductor connection	Туре	fine-wired
		nominal	1.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 15 mm
		Recommended wire- end ferrule	H1,5/18D SW
		Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H1,5/12
	Cross-section for conductor connection	Туре	fine-wired
	oross section for conductor confidence	nominal	0.75 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H0,75/18 W
	Cross-section for conductor connection	Type	fine-wired
	Greek seemen for semanater semineers.	nominal	2.5 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H2,5/19D BL
		Stripping length	nominal 12 mm
		Recommended wire- end ferrule	H2,5/12
	Cross-section for conductor connection	Type	fine-wired
	5.355 555 and the solidation confidential	nominal	4 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 12 mm
	o ona forfato	Recommended wire-	H4,0/12
		end ferrule	
		Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H4,0/20D GR
	Cross-section for conductor connection	Туре	fine-wired
		nominal	6 mm <sup>2</sup>
	wire end ferrule	Stripping length	nominal 14 mm
		Recommended wire- end ferrule	H6,0/20 SW
		Stripping length	nominal 12 mm
		Recommended wire-	H6,0/12

Catalogue status / Drawings

end ferrule





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# **Technical data**

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	H10,0/12	
	Stripping length	nominal	15 mm
	Recommended wire- end ferrule	H10,0/22 E	<u>3</u>
Cross-section for conductor connection	Type	fine-wired	
	nominal	16 mm²	
wire end ferrule	Stripping length	nominal	12 mm
	Recommended wire- end ferrule	H16,0/12	
	Stripping length	nominal	15 mm
	Recommended wire- end ferrule	H16,0/22 G	<u>N</u>

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

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

### Rated data acc. to UL 1059

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

#### **Packing**

Packaging	Box	VPE length	352.00 mm
VPE width	162.00 mm	VPE height	105.00 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	Additional variants on request

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# **Technical data**

- 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 6.0	EC002638	ETIM 7.0	EC002638
ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 9.0	27-44-03-09
ECLASS 9.1	27-44-03-09	ECLASS 10.0	27-44-03-09
ECLASS 11.0	27-46-02-02	ECLASS 12.0	27-46-02-02
ECLASS 13.0	27-46-02-02	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

# Weidmüller **3**

# BUZ 10.16IT/04/180MSF2SH180 AG BK BX

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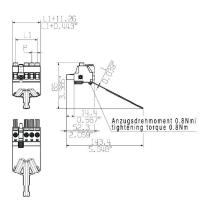
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# **Drawings**

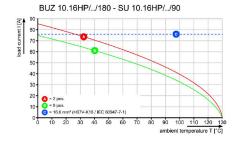
### **Product image**

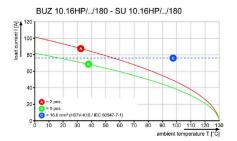


# **Dimensional drawing**



Graph Graph







# Weidmüller **3**

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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/04/270MSF2 3...
 Version

 Order No.
 2630220000
 PCB plug-in connector, male header, THT solder connection, 10.16

 GTIN (EAN)
 4050118633894
 mm, Number of poles: 4, 270°, Solder pin length (I): 3.5 mm, tinned, 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.

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### General ordering data

-	Control ordering data		
Тур	ре	SU 10.16IT/04/90MSF2 3	Version
Orc	der No.	2630150000	PCB plug-in connector, male header, THT solder connection, 10.16
GTI	IN (EAN)	4050118633825	mm, Number of poles: 4, 90°, Solder pin length (I): 3.5 mm, tinned,
Qty	y.	36 ST	black, Box