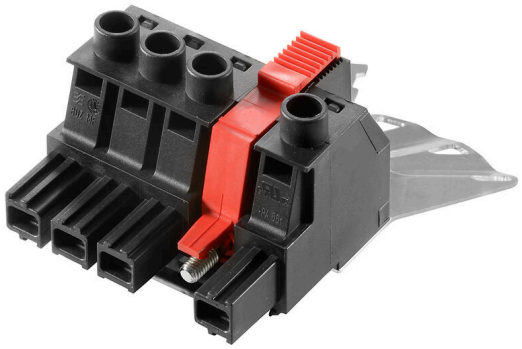
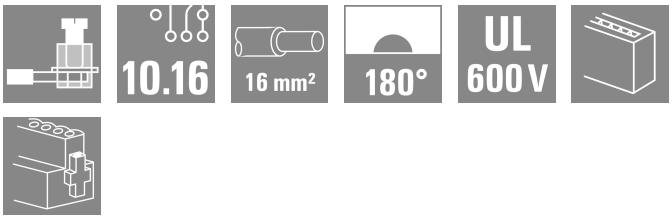
Data sheet

BUZ 10.16IT/04/180MSF2SH160 AG BK BX

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

www.weidmueller.com





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 connection, Clamping range, max. : 16 mm²
Order No.	2627490000
Type	BUZ 10.16IT/04/180MSF2SH160 AG BK BX
GTIN (EAN)	4050118631371
Qty.	20 items
Product data	IEC: 1000 V / 78.3 A / 0.2 - 16 mm² UL: 600 V / 60 A / AWG 22 - AWG 4
Delivery status	Discontinued

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Technical data

Dimensions and weights

Net weight	0 g

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6al
REACH SVHC	Lead 7439-92-1
SCIP	8295bd8f-de43-48c8-b6fb-ccac7a7a6168

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	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 mm²
Clamping range, max.	16 mm²
Wire connection cross section AWG, min.	AWG 22
Wire connection cross section AWG, max.	AWG 4
Solid, min. H05(07) V-U	0.2 mm²
Solid, max. H05(07) V-U	16 mm²
Stranded, min. H07V-R	6 mm²
Stranded, max. H07V-R	16 mm²
Flexible, min. H05(07) V-K	0.5 mm²
Flexible, max. H05(07) V-K	16 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm²
w. plastic collar ferrule, DIN 46228 pt 4, max.	16 mm²

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Technical data

w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm²			
w. wire end ferrule, DIN 46228 pt 1, max.	16 mm²			
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 mm²	
	wire end ferrule	Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H0,5/18 OR	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1 mm²	
	wire end ferrule	Stripping length	nominal	15 mm
		Recommended wire-end ferrule	H1,0/18 GE	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm²	
	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	Type	fine-wired	
		nominal	0.75 mm²	
	wire end ferrule	Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H0,75/18 W	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm²	
	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	
		nominal	4 mm²	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H4,0/12	
		Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H4,0/20D GR	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	6 mm²	
	wire end ferrule	Stripping length	nominal	14 mm
		Recommended wire-end ferrule	H6,0/20 SW	
		Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H6,0/12	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	10 mm²	
	wire end ferrule	Stripping length	nominal	12 mm
		Recommended wire-end ferrule	H10,0/12	
		Stripping length	nominal	15 mm

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Technical data

		Recommended wire-end ferrule	H10,0/22 EB
	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 GN
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

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 • 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.

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Technical data

- 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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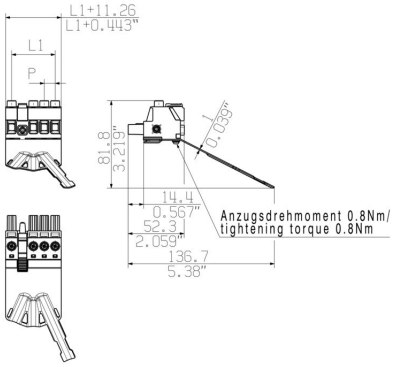
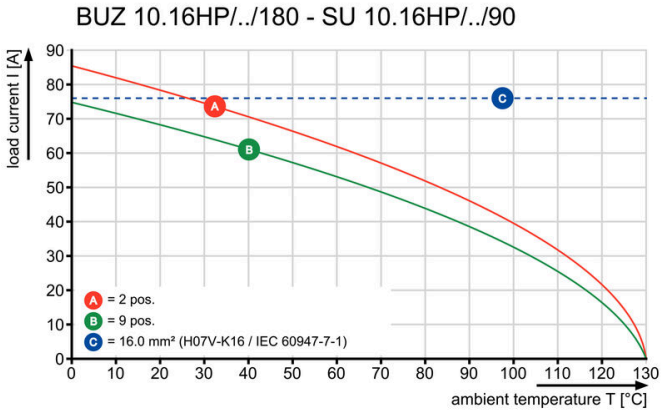
Drawings

Product image

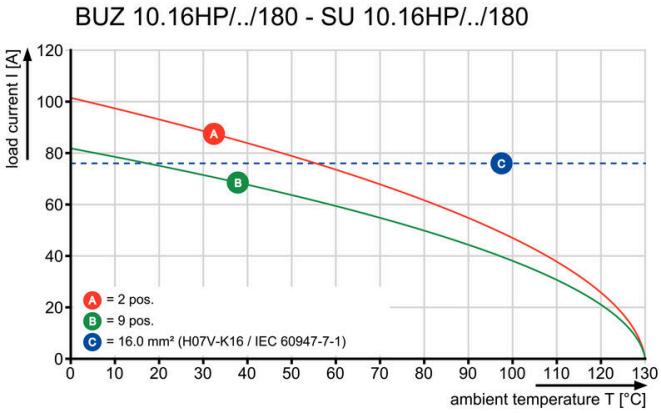
Dimensional drawing



Graph



Graph



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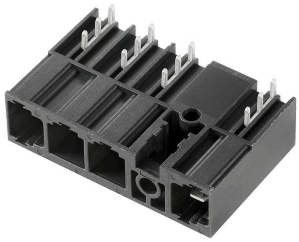
Counterpart

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 (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/04/90MSF2 3....	Version
Order No.	2630150000	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