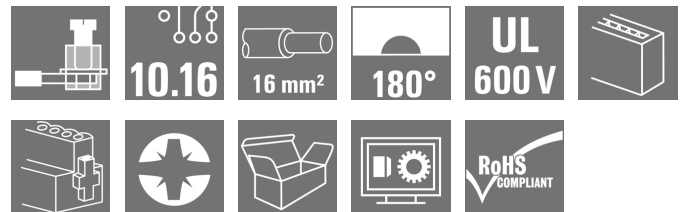


OMNIMATE Power - series BU/SU 10.16IT BUZ 10.16IT/04/180MF2 AG BK BX

Weidmüller Interface GmbH & Co. KG
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Product image



180° female plug with 10.16 pitch for IT power networks.
Meets the requirements of UL 1059 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

Type	BUZ 10.16IT/04/180MF2 AG BK BX
Order No.	1156630000
Version	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 4, 180°, Clamping yoke connection, Clamping range, max. : 16 mm², Box
GTIN (EAN)	4032248943562
Qty.	18 pc(s).
Product data	IEC: 1000 V / 78.3 A / 0.2 - 16 mm² UL: 600 V / 60 A / AWG 22 - AWG 4
Packaging	Box

Creation date May 2, 2020 8:45:27 AM CEST

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Technical data
Dimensions and weights

Net weight 56.822 g

System Parameters

Product family		Type of connection	
OMNIMATE Power - series BU/SU 10.16IT		Field connection	
Wire connection method	Clamping yoke connection	Pitch in mm (P)	10.16 mm
Pitch in inches (P)	0.4 inch	Conductor outlet direction	180°
Number of poles	4	L1 in mm	40.64 mm
L1 in inches	1.6 inch	Number of rows	1
Pin series quantity	1	Rated cross-section	16 mm ²
Touch-safe protection acc. to DIN VDE 57 106		Touch-safe protection acc. to DIN VDE 0470	
Safe from finger touch		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, ISO 8764/2-PZ
Plugging cycles	≤ 50	Plugging force/pole, max.	14.5 N
Pulling force/pole, max.	14.5 N		

Material data

Insulating material		Colour	
PA GF		black	
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Insulation strength	≥ 10 ⁸ Ω
UL 94 flammability rating	V-0	GWFI	960 °C
Contact material	Copper alloy	Contact surface	silver-plated
Layer structure of plug contact	3- μm Ag	Storage temperature, min.	-25 °C
Storage temperature, max.	50 °C	Max. relative humidity during storage	70 %
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 ²
Clamping range, max.	16 mm ²
Wire connection cross section AWG, min.	AWG 22
Wire connection cross section AWG, max.	AWG 6
Solid, min. H05(07) V-U	0.2 mm ²
Solid, max. H05(07) V-U	16 mm ²
Stranded, min. H07V-R	6 mm ²
Stranded, max. H07V-R	16 mm ²
Flexible, min. H05(07) V-K	0.5 mm ²
Flexible, max. H05(07) V-K	16 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.25 mm ²
w. plastic collar ferrule, DIN 46228 pt 4, max.	16 mm ²
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm ²
w. wire end ferrule, DIN 46228 pt 1, max.	16 mm ²
Plug gauge in accordance with EN 60999 a x b; ø	5.3mm (B6)

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Technical data

Clampable conductor	Cross-section for conductor connection	Type	fine-wired
		nominal	0.5 mm ²
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 mm ²	
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 mm ²	
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 mm ²	
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 mm ²	
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 mm ²	
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 mm ²	
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 mm ²	
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 EB	
Cross-section for conductor connection	Type	fine-wired	
	nominal	16 mm ²	
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	

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Technical data

Reference text	Length of ferrules is to be chosen depending on the product and the rated voltage.
Max. clamping range	16 mm ²


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	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	1,000 V	Rated voltage for surge voltage class / pollution degree III/3	1,000 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
Clearance, min.	15.1 mm	Creepage distance, min.	15.1 mm

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1121690
Rated voltage (Use group B / CSA)	300 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)		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.		

Packing

Packaging	Box	VPE length	55 mm
VPE width	135 mm	VPE height	350 mm

Classifications

ETIM 6.0	EC002638	ETIM 7.0	EC002638
eClass 9.0	27-44-03-09	eClass 9.1	27-44-03-09
eClass 10.0	27-44-03-09		

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Catalogue status 17.04.2020 / We reserve the right to make technical changes.

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Technical data

Notes

- | | |
|-------|--|
| Notes | <ul style="list-style-type: none"> • Additional colours 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.
 • MFX and MSFX: X= Position of the middle flange e.g. MF2, MSF3
 • 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. |
|-------|--|

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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Approvals

Approvals



ROHS	Conform
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Downloads

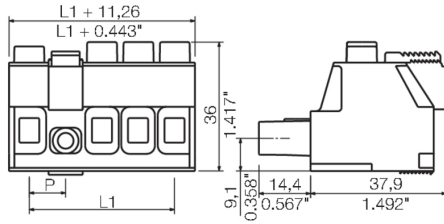
Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN, WSCAD
Engineering Data	STEP
White paper power electronics connected correctly	Download Whitepaper
User Documentation	QR-Code product handling video
White paper UL 600 V	Download Whitepaper

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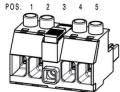
Drawings

Dimensional drawing

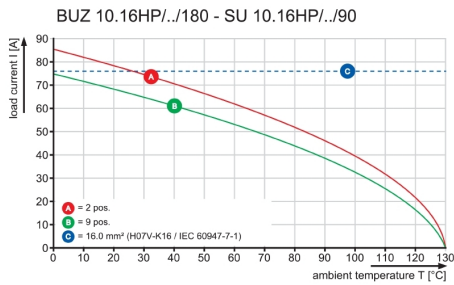


Connection diagram

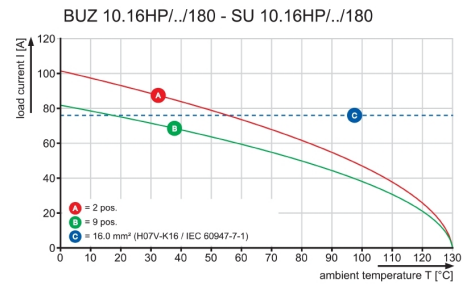
6	M(S)F6	o	o	o	o	o	X	o
6	M(S)F5	o	o	o	o	X	o	o
6	M(S)F4	o	o	o	X	o	o	o
6	M(S)F3	o	o	X	o	o	o	o
6	M(S)F2	o	X	o	o	o	o	o
5	M(S)F5	o	o	o	o	X	o	o
5	M(S)F4	o	o	o	X	o	o	o
5	M(S)F3	o	o	X	o	o	o	o
5	M(S)F2	o	X	o	o	o	o	o
4	M(S)F4	o	o	o	X	o	o	o
4	M(S)F3	o	o	X	o	o	o	o
4	M(S)F2	o	X	o	o	o	o	o
3	M(S)F3	o	o	X	o	o	o	o
3	M(S)F2	o	X	o	o	o	o	o
2	M(S)F2	o	X	o	o	o	o	o

NO OF POLES	X = MIDDLE FLANGE POSITION	POS. 1 2 3 4 5						
		1	2	3	4	5	6	7
								

Graph



Graph



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Mating connector (fully pluggable)
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/04/90MF2 3.5 ...	Version	Product data	Packaging
Order No.	2580410000	PCB plug-in connector, male header, closed side, Middle flange, THT	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4050118589368	solder connection, 10.16 mm, Number of poles: 4, 90°, Solder pin	UL: 300 V / 60 A	
Qty.	36 pc(s).	length (l): 3.5 mm, 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. With its isolated pin tips, the mating profile ensures that more than 1 mm of touch safety is present (also without a socket block) with a finger pressure of 20 N. 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/04/90MF2 3.5 ...	Version	Product data	Packaging
Order No.	1156690000	PCB plug-in connector, male header, closed side, Middle flange, THT	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4032248943722	solder connection, 10.16 mm, Number of poles: 4, 90°, Solder pin	UL: 300 V / 60 A	
Qty.	36 pc(s).	length (l): 3.5 mm, silver-plated, black, Box		

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Mating connector (fully pluggable)
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. With its isolated pin tips, the mating profile ensures that more than 1 mm of touch safety is present (also without a socket block) with a finger pressure of 20 N.

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/04/270MF2 3. ...	Version	Product data	Packaging
Order No.	1157340000	PCB plug-in connector, male header, closed side, Middle flange, THT	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4032248944798	solder connection, 10.16 mm, Number of poles: 4, 270°, Solder pin	UL: 300 V / 60 A	
Qty.	36 pc(s).	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.

General ordering data

Type	SU 10.16HP/04/270MF2 3. ...	Version	Product data	Packaging
Order No.	2580860000	PCB plug-in connector, male header, THT solder connection, 10.16	IEC: 1000 V / 78.3 A	Box
GTIN (EAN)	4050118589474	mm, Number of poles: 4, 270°, Solder pin length (l): 3.5 mm, black,	UL: 300 V / 60 A	
Qty.	36 pc(s).	Box		

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Accessories

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, Blade width (B): 4.5 mm, Blade length: 125 mm, Blade thickness (A): 0.8 mm
GTIN (EAN)	4032248266883	
Qty.	1 pc(s).	

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.	9008480000	Screwdriver, Blade width (B): 4.5 mm, Blade length: 80 mm
GTIN (EAN)	4032248056477	
Qty.	1 pc(s).	

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Accessories
Coding elements

**Only connects what is supposed to be connected:
the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

General ordering data

	Type	Version	Product data	Packaging
Type	KO BU/SU10.16HP BK			
Order No.	1824410000	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4032248326716	of poles: 1		
Qty.	50 pc(s).			