

BUL 10.16HP/02/180 4.5AG BK BX SO

Weidmüller Interface GmbH & Co. KG

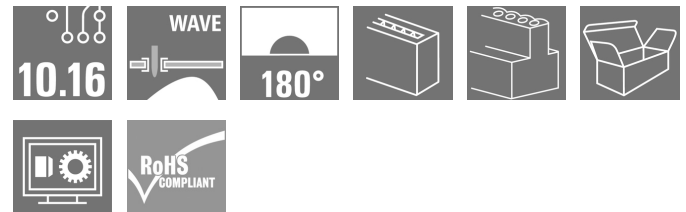
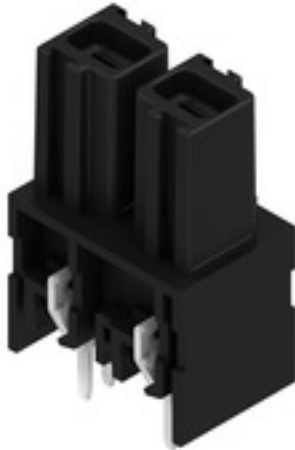
Klingenbergstraße 26

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, female header, closed side, THT solder connection, 10.16 mm, Number of poles: 2, 180°, Solder pin length (l): 4.5 mm, silver-plated, black, Box
Order No.	1289000000
Type	BUL 10.16HP/02/180 4.5AG BK BX SO
GTIN (EAN)	4050118080704
Qty.	50 pc(s).
Product data	IEC: 1000 V / 76 A UL: 300 V / 57 A
Packaging	Box

Creation date June 14, 2023 6:54:08 AM CEST

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Technical data**Dimensions and weights**

Net weight	7.534 g
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Temperatures

Operating temperature, min.	-50 °C	Operating temperature, max.	130 °C
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System Parameters

Product family		Type of connection	
OMNIMATE Power - series BU/SU 10.16		Board connection	
Pitch in mm (P)	10.16 mm	Pitch in inches (P)	0.4 inch
Number of poles	2	L1 in mm	10.16 mm
L1 in inches	0.4 inch	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Protection degree	IP20	Volume resistance	2.00 mΩ
Can be coded	Yes	Plugging force/pole, max.	12.5 N
Pulling force/pole, max.	11 N		

Material data

Insulating material	PA GF	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	silver-plated
Layer structure of solder connection	≥ 3 μm Ag	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

Rated data acc. to IEC

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	76 A
Rated current, max. number of poles (Tu=20°C)	76 A	Rated current, min. number of poles (Tu=40°C)	69 A
Rated current, max. number of poles (Tu=40°C)	62.5 A	Rated voltage for surge voltage class / pollution degree II/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/2	630 V	Rated voltage for surge voltage class / pollution degree III/3	630 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	6 kV
Rated impulse voltage for surge voltage class/ contamination degree III/3	6 kV	Clearance, min.	0 mm
Creepage distance, min.	0 mm		

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Technical data**Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-121690

Rated voltage (Use group B / CSA)	300 V
Rated voltage (Use group D / CSA)	600 V
Rated current (Use group C / CSA)	57 A

Rated voltage (Use group C / CSA)	300 V
Rated current (Use group B / CSA)	57 A
Rated current (Use group D / CSA)	5 A

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059)	300 V
Rated voltage (Use group D / UL 1059)	600 V
Rated current (Use group C / UL 1059)	57 A

Rated voltage (Use group C / UL 1059)	300 V
Rated current (Use group B / UL 1059)	57 A
Rated current (Use group D / UL 1059)	5 A
Creepage distance, min.	11.2 mm

Clearance distance, min.

8.4 mm

Reference to approval values

Specifications are maximum values, details - see approval certificate.

Packing

Packaging	Box	VPE length	45 mm
VPE width	110 mm	VPE height	180 mm

Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
ETIM 8.0	EC002637	ECLASS 9.0	27-44-04-02
ECLASS 9.1	27-44-04-02	ECLASS 10.0	27-44-04-02
ECLASS 11.0	27-46-02-01	ECLASS 12.0	27-46-02-01

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.
- 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.
- Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months

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Technical data**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (UR)	E60693

Downloads

Engineering Data	WSCAD
Catalogues	Catalogues in PDF-format
Brochures	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE 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 PO OMNIMATE EN

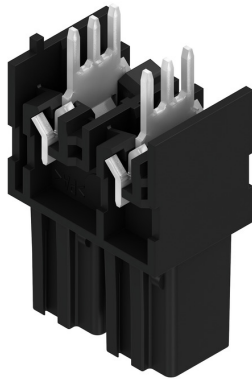
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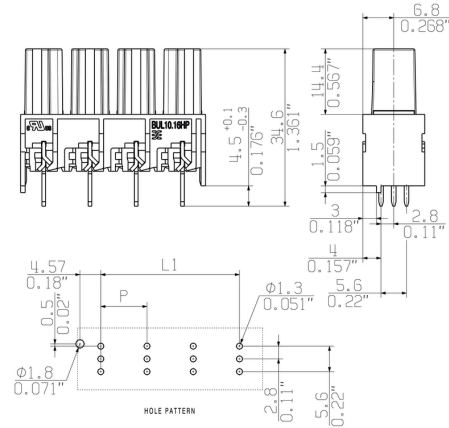
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Drawings

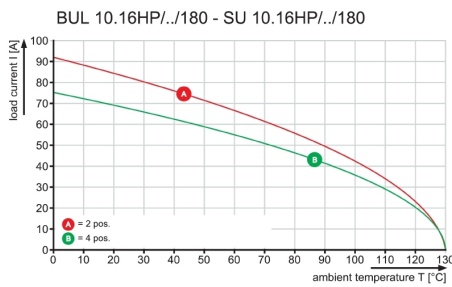
Product image



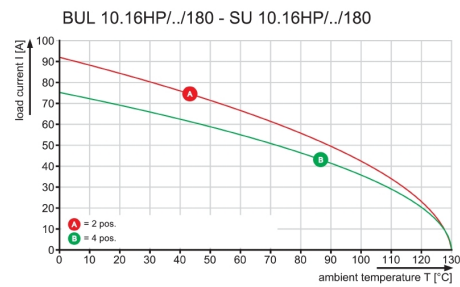
Dimensioned drawing



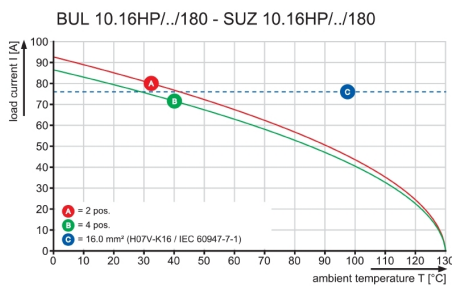
Graph



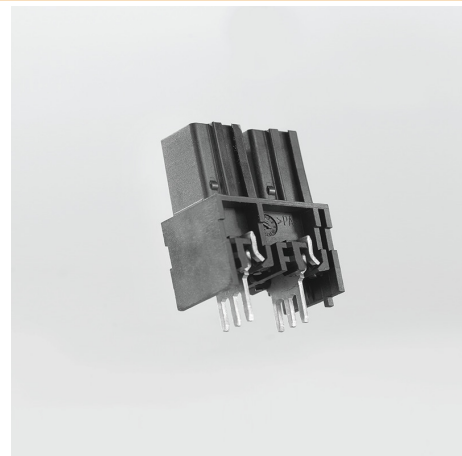
Graph



Graph



Product benefits



High process reliability
 100% torsion-proof on the circuit board

High process reliability
 100% torsion-proof on the circuit board

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Drawings

Product benefits



High performance
Max. current with max. stability

Product benefits



Cross plugging impossible
Individual coding

Product benefits

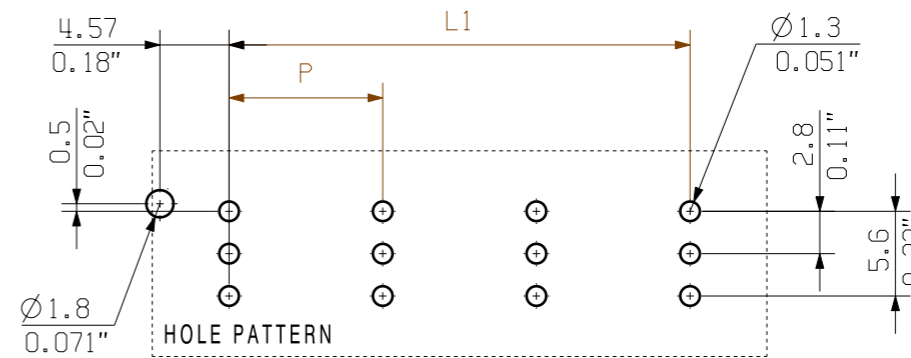
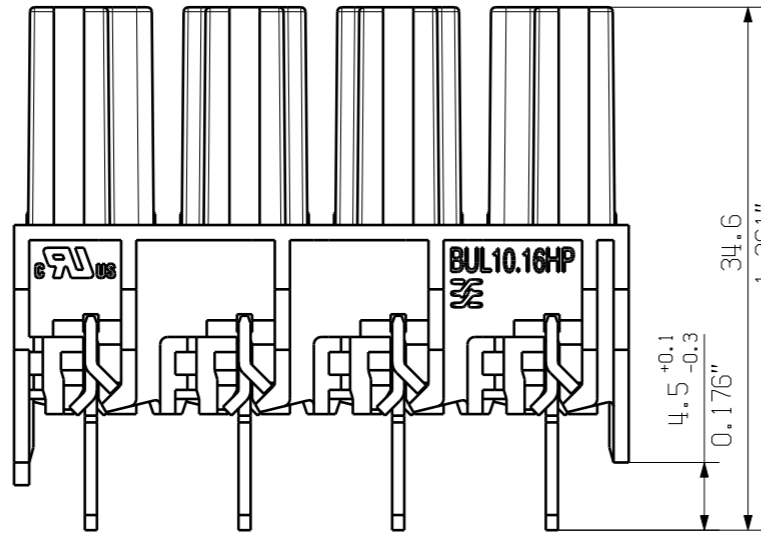
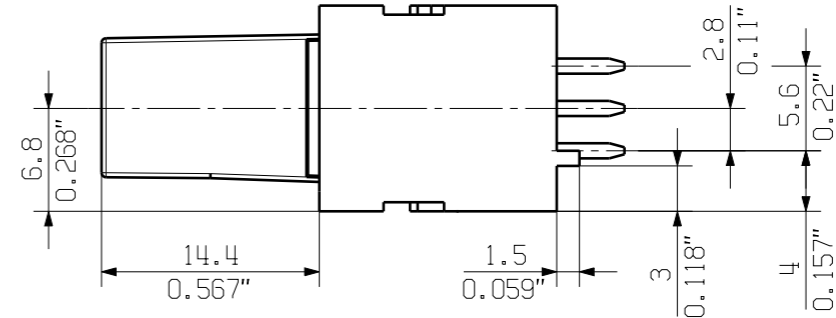
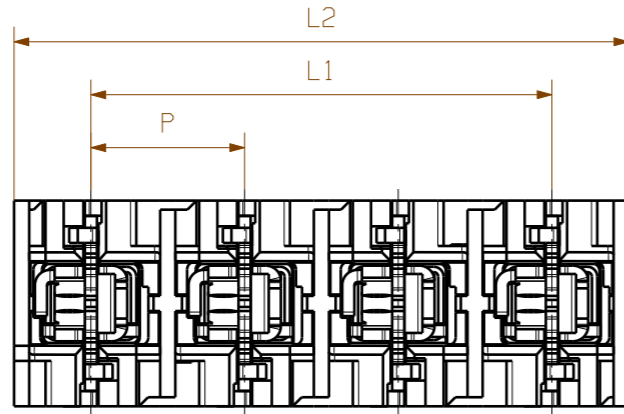


Only connectors with the same number of poles fit
100% mismatching protection

MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE
 DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

ALLGEMEINGUELTIGE KUNDENZEICHNUNG, AKTUELLER STAND NUR AUF ANFRAGE
 GENERAL CUSTOMER DRAWING, TOPICAL VERSION ONLY IF REQUIRED

DIE DEUTSCHE VERSION IST VERBINDLICH
 THE GERMAN VERSION IS BINDING

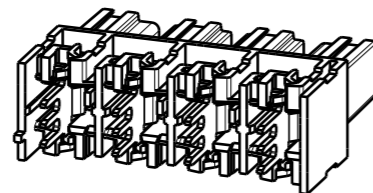


4	30.48	1.2	40.64	1.6
3	20.32	0.8	30.48	1.2
2	10.16	0.4	20.32	0.8
n	POLZAHL POLES	L1 [mm]	L1 [inch]	L2 [mm] L2 [inch]

SHOWN: BUL 10.16HP/04/180 SO

P=10.16 RASTER
 PITCH

M 1/1



For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone. The necessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occurring of electrical, mechanical, thermal and corrosive stress will be satisfied.

	64894/5 21.08.12 DUDZIAK_J 01	Weidmüller		CAT.NO.: C 53595 02
	MODIFICATION		DRAWING NO. ISSUE NO. SHEET 01 OF 01 SHEETS	
	DATE 27.05.2011	NAME FRIELING_L	BUL 10.16HP/.../180... BUCHSENLEISTE FEMALE HEADER	
SCALE: 2/1	RESPONSIBLE 23.08.2012	CHECKED HECKERT_M		
SUPERSEDES: .	APPROVED	HANKE_D		

WEITERGABE SOWIE VERVIELFÄLTIGUNG DIESES DOKUMENTS, VERWERTUNG UND MITTEILUNG SEINES INHALTS SIND VERBOTEN, SOWEIT NICHT AUSDRUECKLICH GESTATTET. ZUWIDERHANDLUNGEN VERPFLICHTEN ZU SCHADENERSATZ. ALLE RECHTE FUER DEN FALL DER PATENT-, GEBRAUCHSMUSTER- ODER GESCHMACKSMUSTEREINTRAGUNG VORBEHALTEN. THE REPRODUCTION, DISTRIBUTION AND UTILIZATION OF THIS DOCUMENT AS WELL AS THE COMMUNICATION OF ITS CONTENTS TO OTHERS WITHOUT EXPLICIT AUTHORIZATION IS PROHIBITED. OFFENDERS WILL BE HELD LIABLE FOR THE PAYMENT OF DAMAGES. WEIDMUELLER EXCLUSIVELY RESERVES THE RIGHT TO FILE FOR PATENTS, UTILITY MODELS OR DESIGNS. © WEIDMUELLER INTERFACE GmbH & Co.KG

Recommended wave soldering profiles

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 Fax: +49 5231 14-292083
 www.weidmueller.com

Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.