

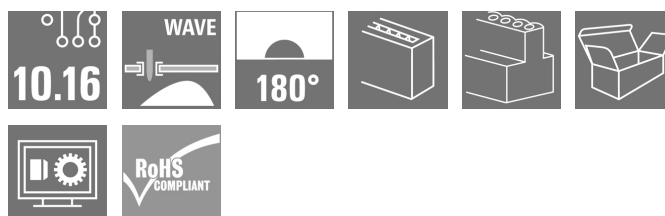
**BUL 10.16HP/02/180 4.5AG BK BX SO****Weidmüller Interface GmbH & Co. KG**

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.	<a href="#">1289000000</a>
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, 2024 2:24:44 AM CEST

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**Technical data****Dimensions and weights**

Net weight	7.534 g
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**System Parameters**

Product family	OMNIMATE Power - series BU/SU 10.16	Type of connection	Board connection
Pitch in mm (P)	10.16 mm	Pitch in inches (P)	0.4 "
Number of poles	2	L1 in mm	10.16 mm
L1 in inches	0.4 "	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	Cu-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		

**Rated data acc. to CSA**

Institute (CSA)		Certificate No. (CSA)	200039-121690
Rated voltage (Use group B / CSA)	300 V	Rated voltage (Use group C / CSA)	300 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	57 A
Rated current (Use group C / CSA)	57 A	Rated current (Use group D / CSA)	5 A
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

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**Technical data****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

Clearance distance, min. 8.4 mm

Reference to approval values

Specifications are maximum values, details - see approval certificate.

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

**Packing**

Packaging

Box

VPE length

180 mm

VPE width

115 mm

VPE height

47 mm

**Classifications**

ETIM 6.0

EC002637

ETIM 7.0

EC002637

ETIM 8.0

EC002637

ETIM 9.0

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

ECLASS 13.0

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.
- 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

**Approvals**

Approvals



ROHS

Conform

UL File Number Search

UL Website

Certificate No. (UR)

E60693

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Catalogue status 01.06.2024 / We reserve the right to make technical changes.

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## Technical data

### Downloads

Approval/Certificate/Document of Conformity	<a href="#">Declaration of the Manufacturer</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	<a href="#">FL DRIVES EN</a>
	<a href="#">MB DEVICE MANUF. EN</a>
	<a href="#">FL DRIVES DE</a>
	<a href="#">FL HEATING ELECTR EN</a>
	<a href="#">FL APPL INVERTER EN</a>
	<a href="#">FL BASE STATION EN</a>
	<a href="#">FL ELEVATOR EN</a>
	<a href="#">FL POWER SUPPLY EN</a>
	<a href="#">FL 72H SAMPLE SER EN</a>
	<a href="#">PO OMNIMATE EN</a>
	<a href="#">PO OMNIMATE EN</a>

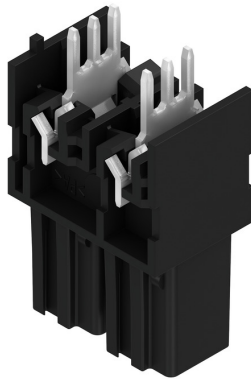
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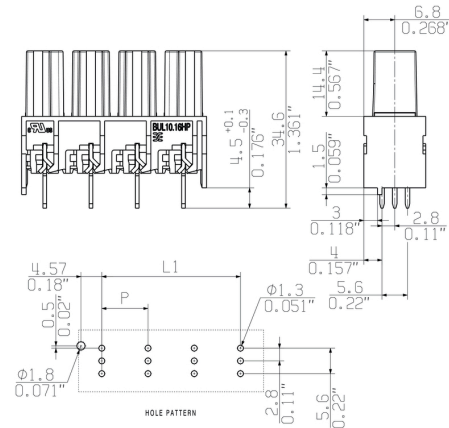
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## Drawings

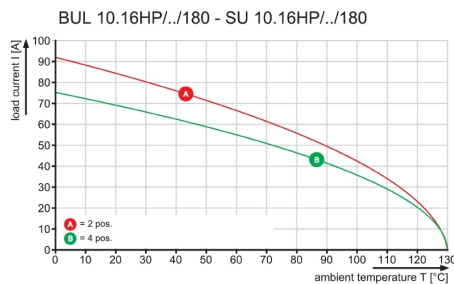
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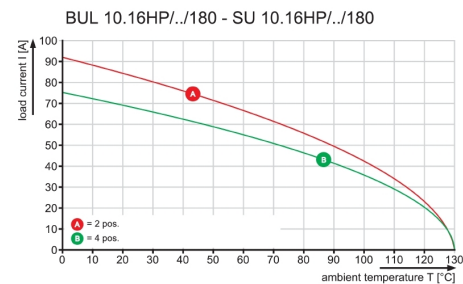
## Dimensioned drawing



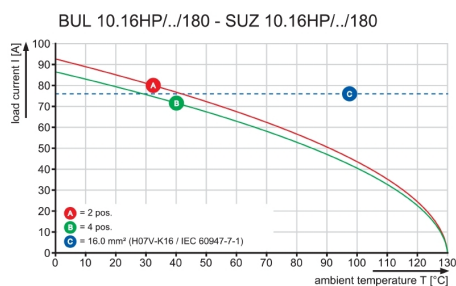
## Graph



## Graph

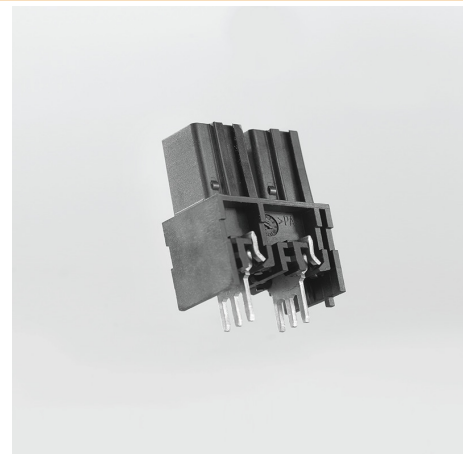


## Graph



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

## Product benefits



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

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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

**General ordering data**

Type	KO BU/SU 10.16HP BK	Version	Product data	Packaging
Order No.	<a href="#">1824410000</a>	PCB plug-in connector, Accessories, Coding element, black, Number		Box
GTIN (EAN)	4032248326716	of poles: 1		
Qty.	50 pc(s).			
Type	KO BU/SU 10.16HP WT	Version	Product data	Packaging
Order No.	<a href="#">2592600000</a>	PCB plug-in connector, Accessories, Coding element, Natural, Number		Box
GTIN (EAN)	4050118717389	of poles: 1		
Qty.	50 pc(s).			

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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

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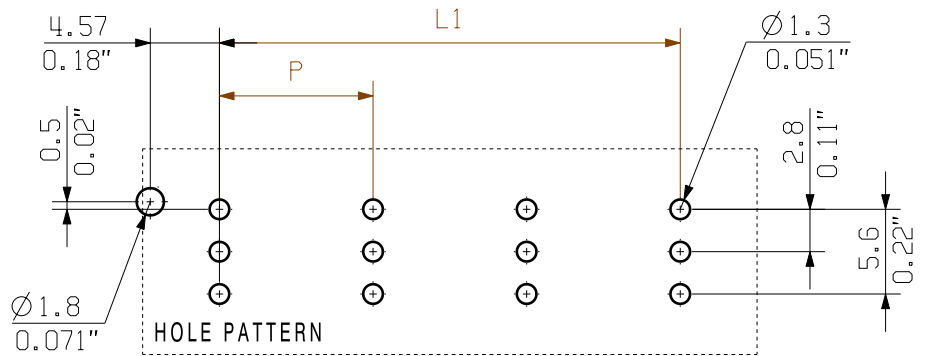
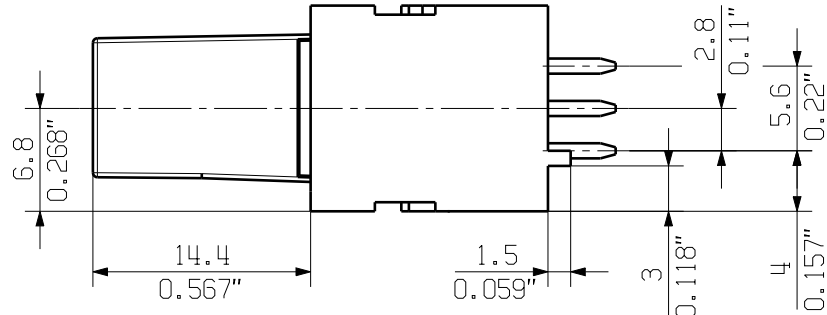
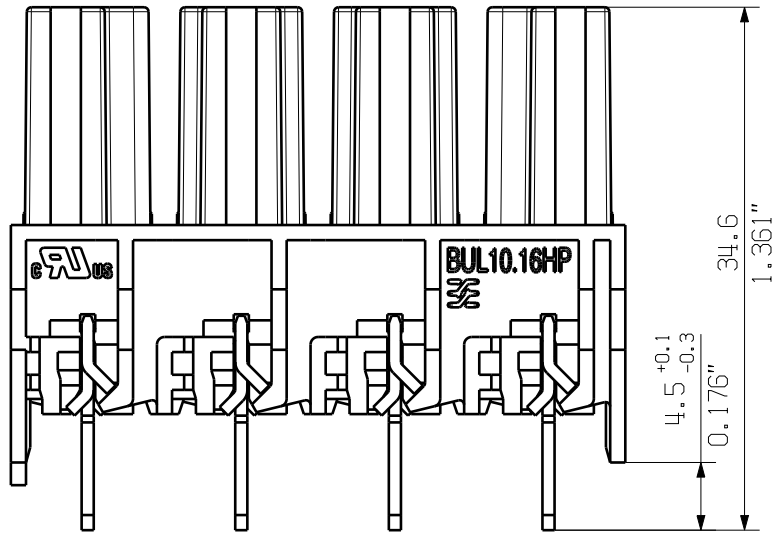
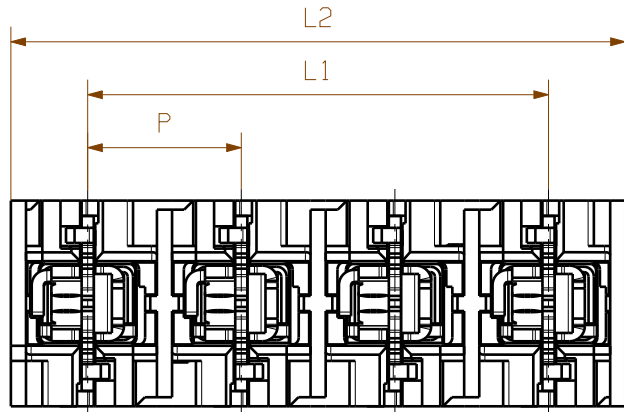
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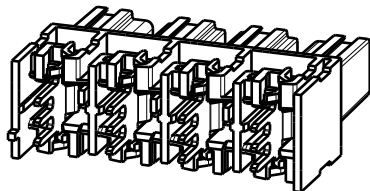
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DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

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



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, thermic and corrosive stress will be satisfied.

SHOWN: BUL 10.16HP/04/180 SO

P=10.16 RASTER PITCH

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]

		64894/5 21.08.12 DUDZIAK_J 01		CAT.NO.: .	
MODIFICATION		DATE		NAME	
DRAWN		27.05.2011		FRIELING_L	
RESPONSIBLE				SCHMITZ_T	
CHECKED		23.08.2012		HECKERT_M	
APPROVED				HANKE_D	
SCALE: 2/1					
SUPERSEDES: .					
				C 53595 02	
				DRAWING NO. SHEET 01 OF 01 SHEETS	
				ISSUE NO.	
				BUL 10.16HP/.../180...	
				BUCHSENLEISTE FEMALE HEADER	
				PRODUCT FILE: BU 10.16	
				7165	



## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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Fon: +49 5231 14-0  
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### 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.

We reserve the right to make technical changes.