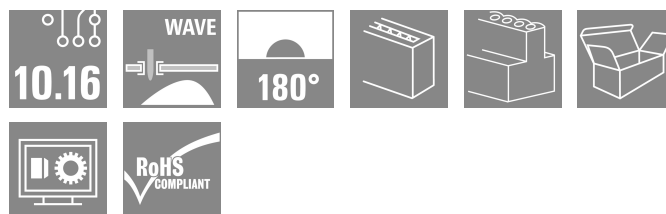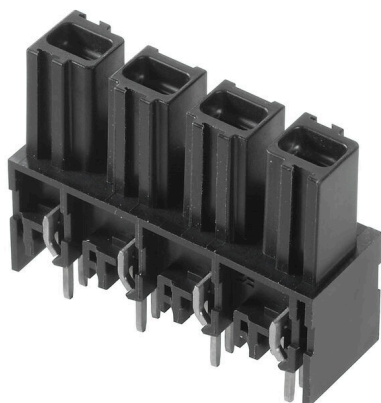# BUL 10.16HP/04/180 4.5AG BK BX SO

Weidmüller ⟫⟪

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

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: 4, 180°, Solder pin length (l): 4.5 mm, silver-plated, black, Box
Order No.	1289010000
Type	BUL 10.16HP/04/180 4.5AG BK BX SO
GTIN (EAN)	4050118080636
Qty.	50 items
Product data	IEC: 1000 V / 76 A UL: 300 V / 57 A
Packaging	Box

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BUL 10.16HP/04/180 4.5AG BK BX SO

Technical data

Approvals

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

Dimensions and weights

Net weight	14.73 g

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

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)	0.400 "
Number of poles	4	L1 in mm	30.48 mm
L1 in inches	1.200 "	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	Moisture Level (MSL)	
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	1000 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	Creepage distance, min.	0 mm

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Data sheet

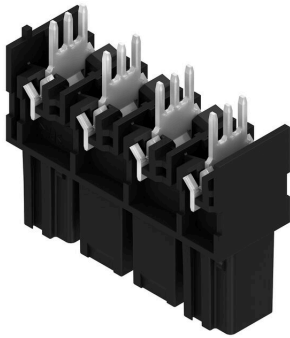# BUL 10.16HP/04/180 4.5AG BK BX SO

Weidmüller Interface GmbH & Co. KG
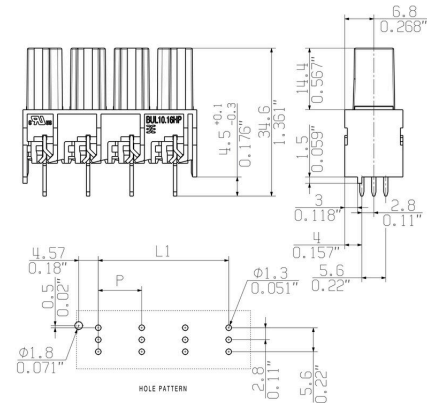Klingenbergstraße 26
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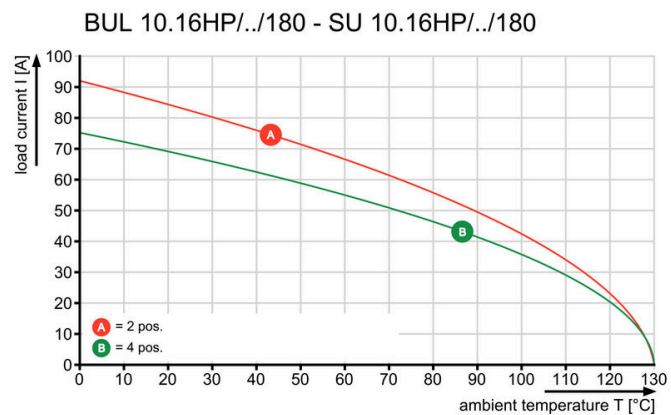## Technical data
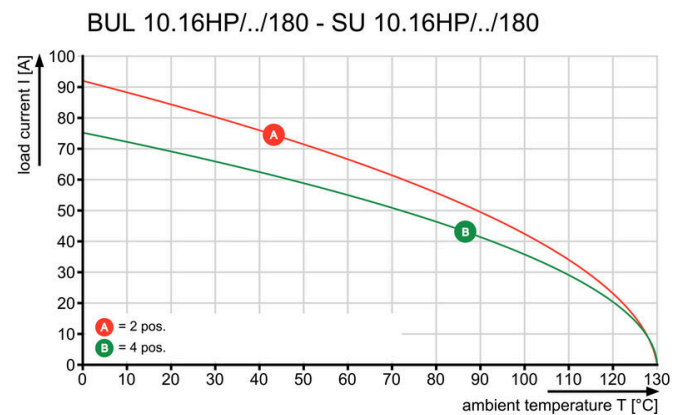
Clearance, min.	0 mm		

Rated data acc. to CSA

Institute (CSA)	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.		

Rated data acc. to UL 1059

Institute (UR)	UR	Certificate No. (UR)	E60693
Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group C / UL 1059)	300 V
Rated voltage (Use group D / UL 1059)	600 V	Rated current (Use group B / UL 1059)	57 A
Rated current (Use group C / 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	240.00 mm
VPE width	149.00 mm	VPE height	40.00 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. • 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

Classifications

ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

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BUL 10.16HP/04/180 4.5AG BK BX SO

Drawings

Product image

Dimensioned drawing

Graph

BUL 10.16HP/../180 - SU 10.16HP/../180

A = 2 pos.
B = 4 pos.

Graph

BUL 10.16HP/../180 - SU 10.16HP/../180

A = 2 pos.
B = 4 pos.

BUL 10.16HP/04/180 4.5AG BK BX SO

Drawings

Graph

BUL 10.16HP/../180 - SUZ 10.16HP/../180
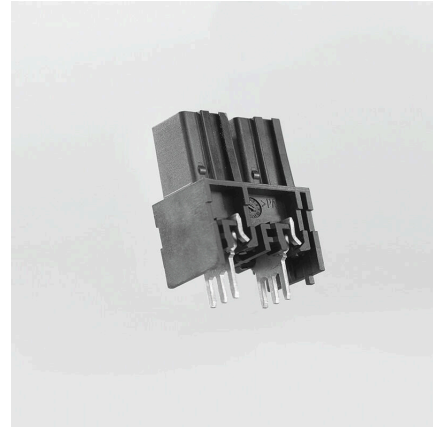

A = 2 pos.
B = 4 pos.
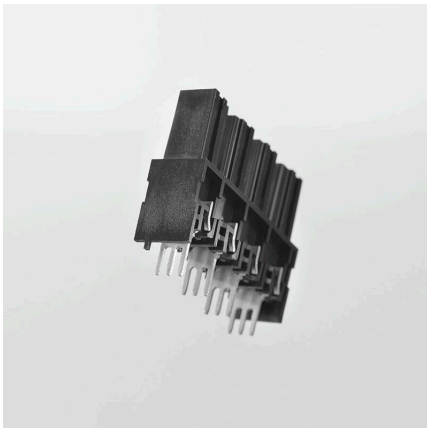C = 16.0 mm² (H07V-K16 / IEC 60947-7-1)
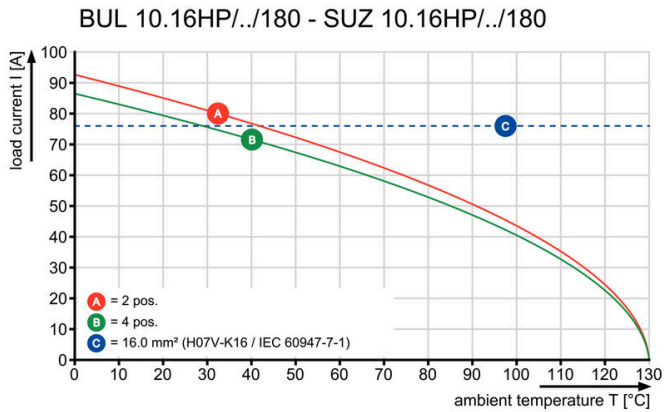
High process reliability 100%
torsion-proof on the circuit board
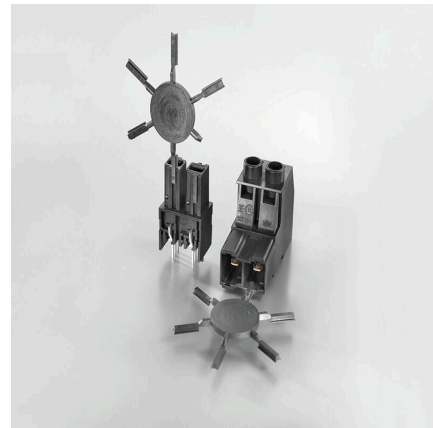
Product benefits

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

Product benefits

High performance Max. current with max. stability

Product benefits

Cross plugging impossible Individual coding

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BUL 10.16HP/04/180 4.5AG BK BX SO

Drawings

Product benefits

Only connectors with the same number of poles fit100% mismating protection

BUL 10.16HP/04/180 4.5AG BK BX SO

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 mm² connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm² 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 product configurator.

General ordering data

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

Type	KO BU/SU10.16HP WT	Version
Order No.	2592600000	PCB plug-in connector, Accessories, Coding element, Natural, Number
GTIN (EAN)	4050118717389	of poles: 1
Qty.	50 ST	

BUL 10.16HP/04/180 4.5AG BK BX SO

Counterpart

SU 10.16HP/180G

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, additional fastening and integrable positioning aid. 3.5 mm pin length is optimised for wave soldering, plug-in direction 180° to solder pins.

General ordering data

| Type	SU 10.16HP/04/180G 3.5A...	Version
Order No.	1813430000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248297627	connection, 10.16 mm, Number of poles: 4, 180°, Solder pin length
Qty.	42 ST	(I): 3.5 mm, silver-plated, black, Box

SU 10.16HP/270G

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/04/270G 3.5A...	Version
Order No.	1813510000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248297726	connection, 10.16 mm, Number of poles: 4, 270°, Solder pin length
Qty.	42 ST	(I): 3.5 mm, silver-plated, black, Box

SU 10.16HP/90G
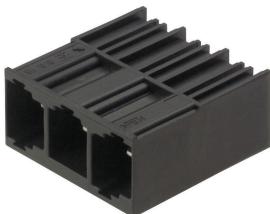
Single-row, high-current male header, for side-by-side mounting without sacrificing any poles, or with patented flange for fast locking without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional 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/04/90G 3.5AG...	Version
Order No.	1813350000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4032248297542	connection, 10.16 mm, Number of poles: 4, 90°, Solder pin length (I):
Qty.	42 ST	3.5 mm, silver-plated, black, Box

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BUL 10.16HP/04/180 4.5AG BK BX SO

Counterpart

Type	SU 10.16HP/04/90G 3.5AG...	Version
Order No.	1340450000	PCB plug-in connector, male header, closed side, THT solder
GTIN (EAN)	4050118145021	connection, 10.16 mm, Number of poles: 4, 90°, Solder pin length (l):
Qty.	42 ST	3.5 mm, Traffic grey (RAL), Box