

**OMNIMATE Power - series BU/SU 10.16HP
SU 10.16HP/05/270MF5 3.5AG BK BX**

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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Product image

Similar to illustration

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/05/270MF5 3.5AG BK BX
Order No.	2597350000
Version	PCB plug-in connector, male header, THT solder connection, 10.16 mm, Number of poles: 5, 270°, Solder pin length (l): 3.5 mm, black, Box
GTIN (EAN)	4050118609516
Qty.	30 pc(s).
Product data	IEC: 1000 V / 78.3 A UL: 300 V / 60 A
Packaging	Box

Creation date May 2, 2020 1:08:06 AM CEST

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Technical data
Dimensions and weights

Net weight 21.41 g

System specifications

Product family	OMNIMATE Power - series BU/SU 10.16HP	Type of connection	Board connection
Mounting onto the PCB	THT solder connection	Pitch in mm (P)	10.16 mm
Pitch in inches (P)	0.4 inch	Outgoing elbow	270°
Number of poles	5	Solder pin length (l)	3.5 mm
Solder pin length tolerance	+0.1 / -0.3 mm	Solder pin dimensions	1.2 x 1.1 mm
Solder pin dimensions = d tolerance	+0.1 / -0.1 mm	L1 in mm	40.64 mm
L1 in inches	1.6 inch	Pin series quantity	2
Plugging cycles	≤ 50		

Material data

Colour	black	Colour chart (similar)	RAL 9011
Insulation strength	≥ 10 ⁸ Ω	GWFI	960 °C
Storage temperature, min.	-25 °C	Storage temperature, max.	50 °C
Max. relative humidity during storage	70 %	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

Rated data acc. to IEC

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	690 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
Clearance, min.	8.9 mm	Creepage distance, min.	10.5 mm

Rated data acc. to CSA

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)	60 A
Rated current (Use group C / CSA)	60 A	Rated current (Use group D / CSA)	5 A

Rated data acc. to UL 1059

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)	60 A
Rated current (Use group C / UL 1059)	60 A	Rated current (Use group D / UL 1059)	5 A
Clearance distance, min.	8.9 mm	Creepage distance, min.	10.5 mm

Packing

Packaging	Box	VPE length	0
VPE width	0	VPE height	0

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Classifications

ETIM 6.0	EC002637	ETIM 7.0	EC002637
eClass 9.0	27-44-04-02	eClass 9.1	27-44-04-02
eClass 10.0	27-44-04-02		

Notes

- Notes
- 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.
 - 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.

Downloads

- White paper power electronics connected correctly [Download Whitepaper](#)
- White paper UL 600 V [Download Whitepaper](#)

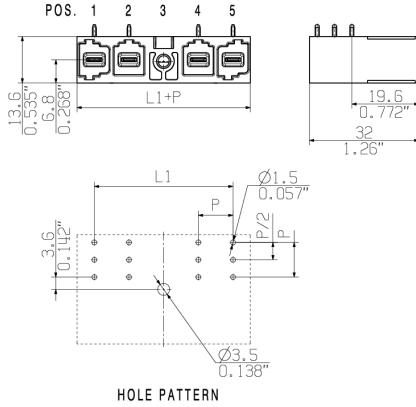
Data sheet

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Drawings

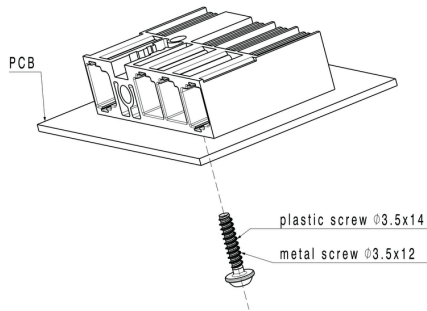
Dimensional drawing



Graph

6	M(S)F6	o	o	o	o	o	X	o
6	M(S)F5	o	o	o	o	o	X	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	1	2	3	4	5	6	7

Example of use



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Mating connector (conditionally pluggable)
BUF 10.16IT 180MSF AG


Device connectivity | OMNIMATE® Power BUF 10.16
PUSH IN PCB connector, 16mm², with wire-ready
function

- PUSH IN technology with settable wire-ready contact point simplifies the connection of stranded wires without wire-end ferrules and wires with particularly rigid insulation
- Direct and tool-free connection of solid wires and wires with crimped wire-end ferrules for fast and safe wiring
- Single-hand operation of the plug-in connector and automatic connection thanks to the middle flange with snap-on mechanism and optionally with additional screw fastening

General ordering data

Type	BUF 10.16IT/05/180MSF5 ...	Version	Product data	Packaging
Order No.	2586760000	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 5,	IEC: 1000 V / 76 A / 2.5 - 16 mm ²	Box
GTIN (EAN)	4050118596175	180°, PUSH IN with actuator, Clamping range, max. : 16 mm ² , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	50 pc(s).			

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Mating connector (fully pluggable)
BUF 10.16IT 180MF AG


Device connectivity | OMNIMATE® Power BUF 10.16
PUSH IN PCB connector, 16mm², with wire-ready
function

- PUSH IN technology with settable wire-ready contact point simplifies the connection of stranded wires without wire-end ferrules and wires with particularly rigid insulation
- Direct and tool-free connection of solid wires and wires with crimped wire-end ferrules for fast and safe wiring
- Single-hand operation of the plug-in connector and automatic connection thanks to the middle flange with snap-on mechanism and optionally with additional screw fastening

General ordering data

Type	BUF 10.16IT/05/180MF5 A ...	Version	Product data	Packaging
Order No.	2586720000	PCB plug-in connector, female plug, 10.16 mm, Number of poles: 5,	IEC: 1000 V / 76 A / 2.5 - 16 mm ²	Box
GTIN (EAN)	4050118596137	180°, PUSH IN with actuator, Clamping range, max. : 16 mm ² , Box	UL: 600 V / 34 A / AWG 12 - AWG 6	
Qty.	50 pc(s).			

Recommended wave soldering profiles

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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.