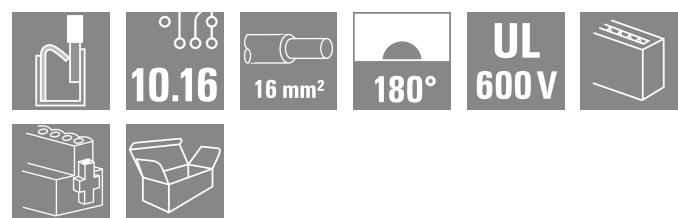


BUF 10.16IT/02/180SF AG BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image



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

| | |
|--------------|--|
| Version | PCB plug-in connector, female plug, 10.16 mm, Number of poles: 2, 180°, PUSH IN with actuator, Clamping range, max. : 16 mm ² , Box |
| Order No. | 2493340000 |
| Type | BUF 10.16IT/02/180SF AG BK BX |
| GTIN (EAN) | 4050118503128 |
| Qty. | 28 items |
| Product data | IEC: 1000 V / 76 A / 2.5 - 16 mm ² UL: 600 V / 51 A / AWG 12 - AWG 6 |
| Packaging | Box |

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Technical data

Approvals

Approvals



| | |
|-------------------------|----------------------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E60693 |

Dimensions and weights

| | |
|------------|----------|
| Depth | 39.5 mm |
| Height | 28.9 mm |
| Width | 40.64 mm |
| Net weight | 32.02 g |

| | |
|-----------------|-------------|
| Depth (inches) | 1.5551 inch |
| Height (inches) | 1.1378 inch |
| Width (inches) | 1.6 inch |

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 | Field connection |
|--|-------------------------------------|--|--------------------|
| Wire connection method | PUSH IN with actuator | Pitch in mm (P) | 10.16 mm |
| Pitch in inches (P) | 0.400 " | Conductor outlet direction | 180° |
| Number of poles | 2 | L1 in mm | 10.16 mm |
| L1 in inches | 0.400 " | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 16 mm ² |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | Touch-safe protection acc. to DIN VDE 0470 | IP 20 |
| Protection degree | IP20 | Can be coded | Yes |
| Stripping length | 18 mm | Tightening torque for screw flange, min. | 0.3 Nm |
| Tightening torque for screw flange, max. | 0.4 Nm | Screwdriver blade | 0.8 x 4.0 |
| Screwdriver blade standard | DIN 5264 | Plugging cycles | 25 |
| Plugging force/pole, max. | 15 N | Pulling force/pole, max. | 15 N |

Material data

| | | | |
|----------------------------------|-----------|-----------------------------|---------------------|
| Insulating material | PA GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 400 | Insulation resistance | ≥ 10 ⁸ Ω |
| Moisture Level (MSL) | | UL 94 flammability rating | V-0 |
| Contact material | Cu-alloy | Contact surface | silver-plated |
| 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. | 120 °C | | |

Conductors suitable for connection

| | |
|---|---------------------|
| Clamping range, min. | 2.5 mm ² |
| Clamping range, max. | 16 mm ² |
| Wire connection cross section AWG, min. | AWG 12 |
| Wire connection cross section AWG, max. | AWG 4 |
| Solid, min. H05(07) V-U | 2.5 mm ² |

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Technical data

| | |
|--|--|
| Solid, max. H05(07) V-U | 10 mm ² |
| Stranded, min. H07V-R | 10 mm ² |
| Stranded, max. H07V-R | 16 mm ² |
| Flexible, min. H05(07) V-K | 2.5 mm ² |
| Flexible, max. H05(07) V-K | 16 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm ² min. | |
| w. plastic collar ferrule, DIN 46228 pt 4, 16 mm ² max. | |
| w. wire end ferrule, DIN 46228 pt 1, 2.5 mm ² min. | |
| w. wire end ferrule, DIN 46228 pt 1, 16 mm ² max. | |
| Clampable conductor | Cross-section for conductor connection |
| | Type fine-wired |
| | nominal 2.5 mm ² |
| | wire end ferrule |
| | Stripping length nominal 20 mm |
| | Recommended wire-end ferrule H2.5/25D BL |
| | Stripping length nominal 18 mm |
| | Recommended wire-end ferrule H2.5/18 |
| | Cross-section for conductor connection |
| | Type fine-wired |
| Clampable conductor | nominal 4 mm ² |
| | wire end ferrule |
| | Stripping length nominal 20 mm |
| | Recommended wire-end ferrule H4.0/26D GR |
| | Stripping length nominal 18 mm |
| | Recommended wire-end ferrule H4.0/18 |
| | Cross-section for conductor connection |
| | Type fine-wired |
| | nominal 6 mm ² |
| | wire end ferrule |
| Clampable conductor | Stripping length nominal 20 mm |
| | Recommended wire-end ferrule H6.0/26 SW |
| | Stripping length nominal 18 mm |
| | Recommended wire-end ferrule H6.0/18 |
| | Cross-section for conductor connection |
| | Type fine-wired |
| | nominal 10 mm ² |
| | wire end ferrule |
| | Stripping length nominal 21 mm |
| | Recommended wire-end ferrule H10.0/28 EB |
| Clampable conductor | Stripping length nominal 18 mm |
| | Recommended wire-end ferrule H10.0/18 |
| | Cross-section for conductor connection |
| | Type fine-wired |
| | nominal 16 mm ² |
| | wire end ferrule |
| | Stripping length nominal 21 mm |
| | Recommended wire-end ferrule H16.0/28 GN |
| | Stripping length nominal 18 mm |
| | Recommended wire-end ferrule H16.0/18 |

Reference text

Length of ferrules is to be chosen depending on the product and the rated voltage.

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Technical data

Rated data acc. to IEC

| | | | |
|---|------------------|---|--------|
| Rated current, min. number of poles (Tu=20°C) | 76 A | Rated current, max. number of poles (Tu=20°C) | 71 A |
| Rated current, min. number of poles (Tu=40°C) | 70 A | Rated current, max. number of poles (Tu=40°C) | 62 A |
| Rated voltage for surge voltage class / pollution degree II/2 | 1000 V | Rated voltage for surge voltage class / pollution degree III/2 | 1000 V |
| Rated voltage for surge voltage class / pollution degree III/3 | 1000 V | Rated impulse voltage for surge voltage class/ pollution degree II/2 | 8 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 with 800A | | |

Rated data acc. to UL 1059

| | | | |
|---------------------------------------|--|---------------------------------------|--------|
| Institute (cURus) | CURUS | Certificate No. (cURus) | E60693 |
| Rated voltage (Use group B / UL 1059) | 600 V | Rated voltage (Use group C / UL 1059) | 600 V |
| Rated current (Use group B / UL 1059) | 51 A | Rated current (Use group C / UL 1059) | 51 A |
| Wire cross-section, AWG, min. | AWG 12 | Wire cross-section, AWG, max. | AWG 6 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|-----------|------------|-----------|
| Packaging | Box | VPE length | 356.00 mm |
| VPE width | 192.00 mm | VPE height | 77.00 mm |

Type tests

| | | |
|-------------------------------|----------------|--|
| Test: Durability of markings | Standard | IEC 60068-2-70 / 12.95 |
| | Test | mark of origin, type identification, pitch, durability, stripping length |
| | Evaluation | available |
| Test: Clampable cross section | Standard | IEC 60999-1:1999-11 section 9.1, IEC 60947-1:2011-03 section 8.2.4.5.1 |
| | Conductor type | Type of conductor stranded 2.5 mm ² and conductor cross-section |
| | | Type of conductor solid 2.5 mm ² and conductor cross-section |
| | | Type of conductor stranded 16 mm ² and conductor cross-section |
| | | Type of conductor solid 10 mm ² and conductor cross-section |
| | | Type of conductor AWG 12/1 and conductor cross-section |
| | | Type of conductor AWG 12/19 and conductor cross-section |
| | | Type of conductor AWG 4/1 and conductor cross-section |
| | | Type of conductor AWG 4/19 and conductor cross-section |

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Technical data

| | | |
|---|----------------|---|
| | Evaluation | passed |
| Test for damage to and accidental loosening of conductors | Standard | IEC 60999-1:1999-11 section 9.4 bzw. section 8.10 |
| | Requirement | 0.7 kg |
| | Conductor type | Type of conductor and conductor cross-section H07V-K2.5 |
| | | Type of conductor and conductor cross-section H07V-U2.5 |
| | | Type of conductor and conductor cross-section AWG 14/1 |
| | | Type of conductor and conductor cross-section AWG 14/19 |
| | Evaluation | passed |
| | Requirement | 2.9 kg |
| | Conductor type | Type of conductor and conductor cross-section H07V-K16 |
| | | Type of conductor and conductor cross-section H07V-U16 |
| | Evaluation | passed |
| | Requirement | 4.5 kg |
| | Conductor type | Type of conductor and conductor cross-section AWG 4/7 |
| | | Type of conductor and conductor cross-section AWG 4/19 |
| Pull-out test | Standard | IEC 60999-1:1999-11 section 9.5 |
| | Requirement | ≥50 N |
| | Conductor type | Type of conductor and conductor cross-section AWG 14/1 |
| | | Type of conductor and conductor cross-section AWG 14/19 |
| | | Type of conductor and conductor cross-section H07V-K2.5 |
| | | Type of conductor and conductor cross-section H07V-U2.5 |
| | Evaluation | passed |
| | Requirement | ≥100 N |
| | Conductor type | Type of conductor and conductor cross-section H07V-K16 |
| | | Type of conductor and conductor cross-section H07V-U16 |
| | Evaluation | passed |
| | Requirement | ≥ 135 N |
| | Conductor type | Type of conductor and conductor cross-section AWG 4/7 |
| | | Type of conductor and conductor cross-section AWG4/19 |
| | Evaluation | passed |

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Technical data**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 | <ul style="list-style-type: none">• Additional variants 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.• 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 |

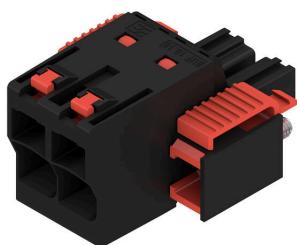
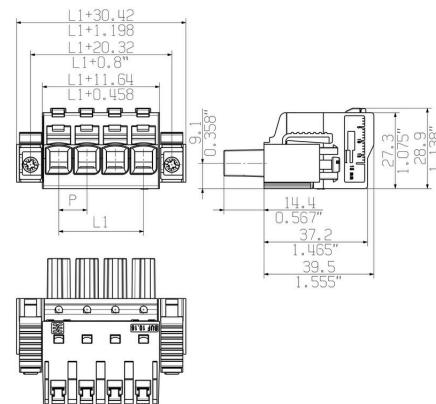
Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002638 | ETIM 9.0 | EC002638 |
| ETIM 10.0 | EC002638 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 | | |

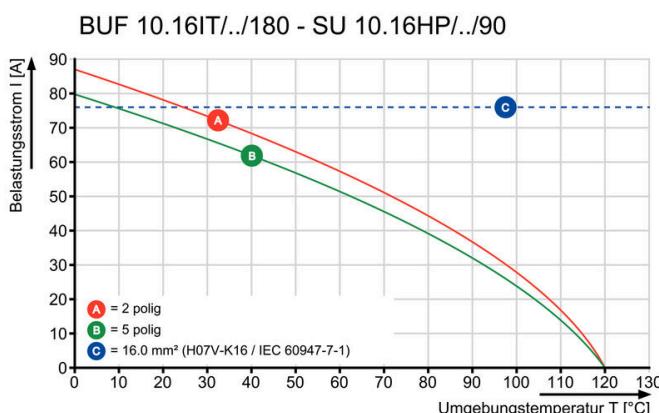
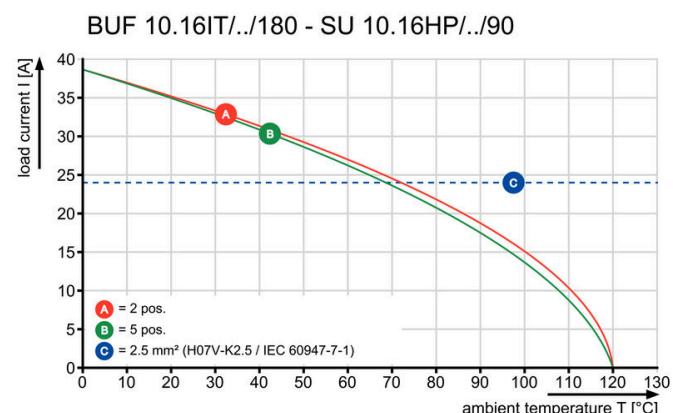
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Drawings**Product image****Dimensional drawing**

Similar to illustration

Graph**Graph****Product benefits**

Easy connection of conductors WIRE READY

Product benefits

Quick wiring

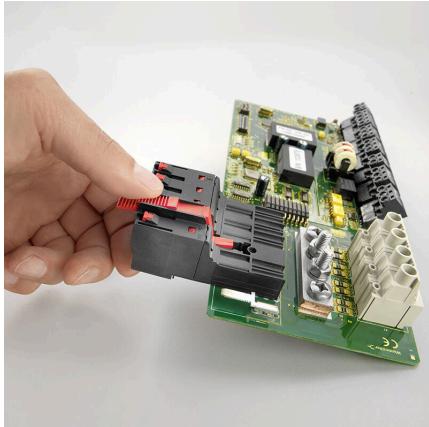
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Drawings

Product benefits



Single-handed operation Automatic latching

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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 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 | |

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, Screwdriver |
| GTIN (EAN) | 4032248266883 | |
| Qty. | 1 ST | |

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Counterpart

SU 10.16HP/180SF



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/02/180SF 3.5... | Version |
| Order No. | 1850880000 | PCB plug-in connector, male header, Screw/clip-on flange, THT solder |
| GTIN (EAN) | 4032248381760 | connection, 10.16 mm, Number of poles: 2, 180°, Solder pin length |
| Qty. | 42 ST | (I): 3.5 mm, silver-plated, black, Box |

SU 10.16HP/270SF

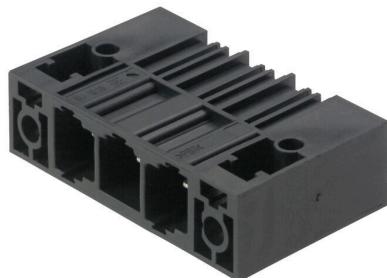


Single-row, high-performance male header for side-by-side mounting without sacrificing any poles or with patented flange for fast fixing without tools. Maximum connection and operating reliability thanks to a mating profile that prevents incorrect connection, with unique coding diversity and additional 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/02/270SF 3.5... | Version |
| Order No. | 1851120000 | PCB plug-in connector, male header, Screw/clip-on flange, THT solder |
| GTIN (EAN) | 4032248382088 | connection, 10.16 mm, Number of poles: 2, 270°, Solder pin length |
| Qty. | 42 ST | (I): 3.5 mm, silver-plated, black, Box |

SU 10.16HP/90SF



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/02/90SF 3.5... | Version |
| Order No. | 1851040000 | PCB plug-in connector, male header, Screw/clip-on flange, THT solder |
| GTIN (EAN) | 4032248382002 | connection, 10.16 mm, Number of poles: 2, 90°, Solder pin length (I): |
| Qty. | 42 ST | 3.5 mm, silver-plated, black, Box |