

SUZ 10.16HP/02/180G AG BK BX

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, male plug, 10.16 mm, Number of poles: 2, 180°, Clamping yoke connection, Clamping range, max. : 16 mm², Box |
| Order No. | 1947480000 |
| Type | SUZ 10.16HP/02/180G AG BK BX |
| GTIN (EAN) | 403224862376 1 |
| Qty. | 64 items |
| Product data | IEC: 1000 V / 78 A / 0.2 - 16 mm² UL: 600 V / 57 A / AWG 24 - AWG 6 |
| Packaging | Box |

SUZ 10.16HP/02/180G AG BK BX

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

www.weidmueller.com

Technical data

Approvals

Approvals



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

Dimensions and weights

| | |
|------------|---------|
| Net weight | 24.09 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 10.16HP | Type of connection | Field connection |
|--|--|--|--------------------|
| Wire connection method | Clamping yoke connection | 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 |
| Volume resistance | 4.50 mΩ | Can be coded | Yes |
| Stripping length | 12 mm | Tightening torque, min. | 1.2 Nm |
| Tightening torque, max. | 1.5 Nm | Clamping screw | M 4 |
| Screwdriver blade | 1.0 x 5.5 | Screwdriver blade standard | DIN 5264 |
| Plugging cycles | 25 | | |

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 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 |

Conductors suitable for connection

| | |
|---|---------------------|
| Clamping range, min. | 0.2 mm ² |
| Clamping range, max. | 16 mm ² |
| Wire connection cross section AWG, min. | AWG 22 |
| Wire connection cross section AWG, max. | AWG 6 |
| Solid, min. H05(07) V-U | 0.2 mm ² |
| Solid, max. H05(07) V-U | 16 mm ² |

SUZ 10.16HP/02/180G AG BK BX

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

www.weidmueller.com

Technical data

| | |
|---|----------------------|
| Stranded, min. H07V-R | 6 mm ² |
| Stranded, max. H07V-R | 16 mm ² |
| Flexible, min. H05(07) V-K | 0.5 mm ² |
| Flexible, max. H05(07) V-K | 16 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, max. | 10 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, max. | 16 mm ² |
| Plug gauge in accordance with EN 60999 a x b; ø | 5.3mm (B6) |

| Clampable conductor | Cross-section for conductor connection | Type | fine-wired |
|--|--|------------------------------|-----------------------------|
| | | nominal | 0.5 mm ² |
| wire end ferrule | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H0,5/18 OR |
| | | | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1 mm ² | |
| wire end ferrule | | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1,0/18 GE |
| | | | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 1.5 mm ² | |
| wire end ferrule | | Stripping length | nominal 15 mm |
| | | Recommended wire-end ferrule | H1,5/18D SW |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H1,5/12 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 0.75 mm ² | |
| wire end ferrule | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H0,75/18 W |
| | | | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 2.5 mm ² | |
| wire end ferrule | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H2,5/19D BL |
| | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H2,5/12 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 4 mm ² | |
| wire end ferrule | | Stripping length | nominal 12 mm |
| | | Recommended wire-end ferrule | H4,0/12 |
| | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H4,0/20D GR |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 6 mm ² | |
| wire end ferrule | | Stripping length | nominal 14 mm |
| | | Recommended wire-end ferrule | H6,0/20 SW |
| | | Stripping length | nominal 12 mm |

SUZ 10.16HP/02/180G AG BK BX

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

www.weidmueller.com

Technical data

| | | | |
|--|--|------------------------------|-------------------------|
| | | Recommended wire-end ferrule | H6,0/12 |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 10 mm ² | |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | Recommended wire-end ferrule | H10,0/12 | |
| | Stripping length | nominal | 15 mm |
| | Recommended wire-end ferrule | H10,0/22 EB | |
| Cross-section for conductor connection | Type | fine-wired | |
| | nominal | 16 mm ² | |
| wire end ferrule | Stripping length | nominal | 12 mm |
| | Recommended wire-end ferrule | H16,0/12 | |
| Reference text | Length of ferrules is to be chosen depending on the product and the rated voltage. | | |

Rated data acc. to IEC

| | | | |
|---|------------------------|---|------------------|
| tested acc. to standard | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C) | 78 A |
| Rated current, max. number of poles (Tu=20°C) | 68 A | Rated current, min. number of poles (Tu=40°C) | 72 A |
| Rated current, max. number of poles (Tu=40°C) | 61 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 | 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 | Short-time withstand current resistance | 3 x 1s with 800A |
| Creepage distance, min. | 14.8 mm | Clearance, min. | 14.8 mm |

Rated data acc. to CSA

| | | | |
|-----------------------------------|--|-----------------------------------|----------------|
| Institute (CSA) | CSA | Certificate No. (CSA) | 200039-1121690 |
| Rated voltage (Use group B / CSA) | 600 V | Rated voltage (Use group C / CSA) | 600 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 |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 6 |
| 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) | 600 V | Rated voltage (Use group C / UL 1059) | 600 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 |
| Wire cross-section, AWG, min. | AWG 24 | Wire cross-section, AWG, max. | AWG 6 |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |

Packing

| | | | |
|-----------|-----------|------------|-----------|
| Packaging | Box | VPE length | 353.00 mm |
| VPE width | 142.00 mm | VPE height | 61.00 mm |

SUZ 10.16HP/02/180G AG BK BX

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

www.weidmueller.com

Technical data

Type tests

| | | | | |
|---|---|--|------------------------------|--|
| Test: Durability of markings | Standard | taking pattern from DIN EN 60068-2-70 / 07.96 | | |
| | Test | date clock, mark of origin, type identification, type of material | | |
| | Evaluation | available | | |
| | Test | durability | | |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed | | |
| | Standard | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN IEC 60512 part 7 section 5 / 05.94 | | |
| | Test | 180° turned with coding elements | | |
| | Evaluation | passed | | |
| Test: Clampable cross section | Test | 180° turned without coding elements | | |
| | Evaluation | passed | | |
| | Standard | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02 | | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.2 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 0.2 mm ² | |
| | | Type of conductor and conductor cross-section | solid 16 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 16 mm ² | |
| | | Type of conductor and conductor cross-section | AWG 24/1 | |
| | | Type of conductor and conductor cross-section | AWG 24/19 | |
| | | Type of conductor and conductor cross-section | AWG 6/1 | |
| Type of conductor and conductor cross-section | | AWG 6/19 | | |
| Evaluation | passed | | | |
| Test for damage to and accidental loosening of conductors | Standard | DIN EN 60999-1 section 9.4 / 12.00 | | |
| | Requirement | 0.2 kg | | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 24/1 | |
| | | Type of conductor and conductor cross-section | AWG 24/19 | |
| | Evaluation | passed | | |
| | Requirement | 0.3 kg | | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm ² | |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² | |
| | Evaluation | passed | | |
| | Requirement | 2.9 kg | | |
| Conductor type | Type of conductor and conductor cross-section | solid 16 mm ² | | |

SUZ 10.16HP/02/180G AG BK BX

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

www.weidmueller.com

Technical data

| | | | |
|---|----------------|---|------------------------------|
| | | Type of conductor and conductor cross-section | stranded 16 mm ² |
| | Evaluation | passed | |
| | Requirement | 0,9 kg | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 6/7 |
| | | Type of conductor and conductor cross-section | AWG 6/19 |
| | Evaluation | passed | |
| Pull-out test | Standard | DIN EN 60999-1 section 9.5 / 12.00 | |
| | Requirement | ≥10 N | |
| | Conductor type | Type of conductor and conductor cross-section | AWG 24/1 |
| | | Type of conductor and conductor cross-section | AWG 24/19 |
| | Evaluation | passed | |
| | Requirement | ≥20 N | |
| | Conductor type | Type of conductor and conductor cross-section | solid 0.5 mm ² |
| | | Type of conductor and conductor cross-section | stranded 0.5 mm ² |
| | Evaluation | passed | |
| | Requirement | ≥100 N | |
| | Conductor type | Type of conductor and conductor cross-section | solid 16 mm ² |
| | | Type of conductor and conductor cross-section | stranded 16 mm ² |
| Type of conductor and conductor cross-section | | AWG 6/7 | |
| Type of conductor and conductor cross-section | | AWG 6/19 | |
| Evaluation | passed | | |

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.
 - Wire end ferrule without plastic collar to DIN 46228/1
 - Wire end ferrule with plastic collar to DIN 46228/4
 - 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

SUZ 10.16HP/02/180G AG BK BX

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

www.weidmueller.com

Technical data

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 | | |

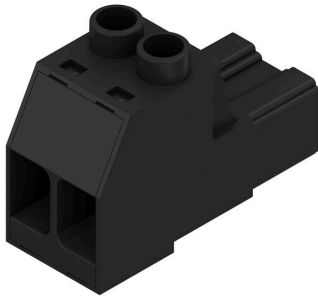
SUZ 10.16HP/02/180G AG BK BX

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

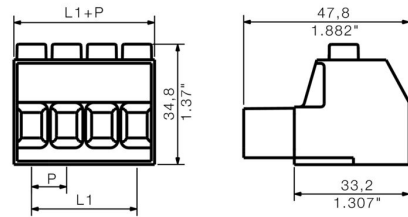
www.weidmueller.com

Drawings

Product image



Dimensional drawing



Graph

