

# SUZ 10.16HP/03/180G AG BK BX

Weidmüller Interfaces GmbH & Co. KG

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## Product image

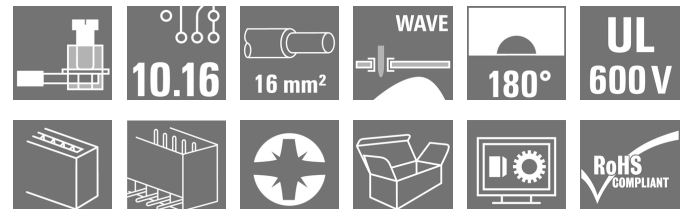


Similar to illustration

## 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: 3, 180°, Clamping yoke connection, Clamping range, max.: 16 mm², Box |
| Order No.    | <a href="#">1947490000</a>                                                                                                        |
| Type         | SUZ 10.16HP/03/180G AG BK BX                                                                                                      |
| GTIN (EAN)   | 4032248623778                                                                                                                     |
| Qty.         | 44 pc(s).                                                                                                                         |
| Product data | IEC: 1000 V / 78 A / 0.2 - 16 mm²<br>UL: 600 V / 57 A / AWG 24 - AWG 6                                                            |
| Packaging    | Box                                                                                                                               |

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## Technical data

## Dimensions and weights

Net weight 35.96 g

## 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)                          | 0.4 inch                              | Conductor outlet direction                 | 180°               |
| Number of poles                              | 3                                     | L1 in mm                                   | 20.32 mm           |
| L1 in inches                                 | 0.8 inch                              | Number of rows                             | 1                  |
| Pin series quantity                          | 1                                     | Rated cross-section                        | 16 mm <sup>2</sup> |
| 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        | UL 94 flammability rating             | V-0           |
| Contact material                      | Copper 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 <sup>2</sup> |
| Clamping range, max.                                                 | 16 mm <sup>2</sup>  |
| 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 <sup>2</sup> |
| Solid, max. H05(07) V-U                                              | 16 mm <sup>2</sup>  |
| Stranded, min. H07V-R                                                | 6 mm <sup>2</sup>   |
| Stranded, max. H07V-R                                                | 16 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                                           | 0.5 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K                                           | 16 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm <sup>2</sup> min. |                     |
| w. plastic collar ferrule, DIN 46228 pt 4, 10 mm <sup>2</sup> max.   |                     |
| w. wire end ferrule, DIN 46228 pt 1, 0.25 mm <sup>2</sup> min.       |                     |
| w. wire end ferrule, DIN 46228 pt 1, 16 mm <sup>2</sup> max.         |                     |
| Plug gauge in accordance with EN 60999 a x b; ø                      | 5.3mm (B6)          |

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## Technical data

|                                        |                                        |                      |                             |
|----------------------------------------|----------------------------------------|----------------------|-----------------------------|
| Clampable conductor                    | Cross-section for conductor connection | Type                 | fine-wired                  |
|                                        |                                        | nominal              | 0.5 mm <sup>2</sup>         |
| wire end ferrule                       | Stripping length                       | nominal              | 14 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H0.5/18 OR</a>  |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 1 mm <sup>2</sup>    |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 15 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H1.0/18 GE</a>  |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 1.5 mm <sup>2</sup>  |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 15 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H1.5/18D SW</a> |
|                                        | Stripping length                       | nominal              | 12 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H1.5/12</a>     |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 0.75 mm <sup>2</sup> |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 14 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H0.75/18 W</a>  |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 2.5 mm <sup>2</sup>  |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 14 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H2.5/19D BL</a> |
|                                        | Stripping length                       | nominal              | 12 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H2.5/12</a>     |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 4 mm <sup>2</sup>    |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 12 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H4.0/12</a>     |
|                                        | Stripping length                       | nominal              | 14 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H4.0/20D GR</a> |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 6 mm <sup>2</sup>    |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 14 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H6.0/20 SW</a>  |
|                                        | Stripping length                       | nominal              | 12 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H6.0/12</a>     |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 10 mm <sup>2</sup>   |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 12 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H10.0/12</a>    |
|                                        | Stripping length                       | nominal              | 15 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H10.0/22 EB</a> |
| Cross-section for conductor connection | Type                                   | fine-wired           |                             |
|                                        | nominal                                | 16 mm <sup>2</sup>   |                             |
| wire end ferrule                       | Stripping length                       | nominal              | 12 mm                       |
|                                        | Recommended wire-end ferrule           |                      | <a href="#">H16.0/12</a>    |

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## Technical data

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, max. number of poles  
(Tu=20°C)

68 A

Rated current, max. number of poles  
(Tu=40°C)

61 A

Rated voltage for surge voltage class /  
pollution degree III/2

1,000 V

Rated impulse voltage for surge voltage  
class/ pollution degree II/2

6 kV

Rated impulse voltage for surge voltage  
class/ contamination degree III/3

8 kV

Clearance, min.

14.8 mm

Rated current, min. number of poles  
(Tu=20°C)

78 A

Rated current, min. number of poles  
(Tu=40°C)

72 A

Rated voltage for surge voltage class /  
pollution degree II/2

1,000 V

Rated voltage for surge voltage class /  
pollution degree III/3

1,000 V

Rated impulse voltage for surge voltage  
class/ pollution degree III/2

8 kV

Short-time withstand current resistance

3 x 1s with 800A

Creepage distance, min.

14.8 mm

## Rated data acc. to CSA

Institute (CSA)



Certificate No. (CSA)

200039-1121690

Rated voltage (Use group B / CSA)

600 V

Rated voltage (Use group D / CSA)

600 V

Rated current (Use group C / CSA)

57 A

Wire cross-section, AWG, min.

AWG 24

Reference to approval values

Specifications are  
maximum values, details -  
see approval certificate.

Rated voltage (Use group C / CSA)

600 V

Rated current (Use group B / CSA)

57 A

Rated current (Use group D / CSA)

5 A

Wire cross-section, AWG, max.

AWG 6

## Rated data acc. to UL 1059

Institute (UR)



Certificate No. (UR)

E60693

Rated voltage (Use group B / UL 1059)

600 V

Rated voltage (Use group D / UL 1059)

600 V

Rated current (Use group C / UL 1059)

57 A

Wire cross-section, AWG, min.

AWG 24

Reference to approval values

Specifications are  
maximum values, details -  
see approval certificate.

Rated voltage (Use group C / UL 1059)

600 V

Rated current (Use group B / UL 1059)

57 A

Rated current (Use group D / UL 1059)

5 A

Wire cross-section, AWG, max.

AWG 6

## Packing

Packaging

Box

VPE length

352 mm

VPE width

135 mm

VPE height

63 mm

## Classifications

ETIM 6.0

EC002638

ETIM 7.0

EC002638

ETIM 8.0

EC002638

ECLASS 9.0

27-44-03-09

ECLASS 9.1

27-44-03-09

ECLASS 10.0

27-44-03-09

ECLASS 11.0

27-46-02-02

ECLASS 12.0

27-46-02-02

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## Important note

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according to 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"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• P on drawing = pitch</li> <li>• 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.</li> <li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li> </ul> |

## Approvals

Approvals



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

## Downloads

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                              |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                                                                                                                                                                                                                                                                                                                                                                              |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                                                                 |
| User Documentation                          | <a href="#">QR-Code product handling video</a>                                                                                                                                                                                                                                                                                                                                                               |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                                                                                                                                                                                                                     |
| Brochures                                   | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL_BASE_STATION_EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a><br><a href="#">PO OMNIMATE EN</a> |

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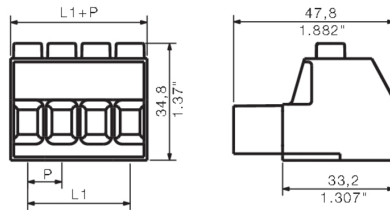
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## Drawings

### Dimensional drawing



### Graph

