

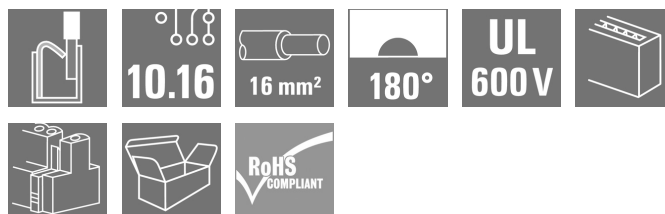
**BUF 10.16IT/04/180MF4 AG BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Device connectivity | OMNIMATE® Power BUF 10.16  
PUSH IN PCB connector, 16mm<sup>2</sup>, 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: 4, 180°, PUSH IN with actuator, Clamping range, max. : 16 mm <sup>2</sup> , Box |
| Order No.    | <a href="#">2544950000</a>                                                                                                                     |
| Type         | BUF 10.16IT/04/180MF4 AG BK BX                                                                                                                 |
| GTIN (EAN)   | 4050118555011                                                                                                                                  |
| Qty.         | 24 pc(s).                                                                                                                                      |
| Product data | IEC: 1000 V / 76 A / 2.5 - 16 mm <sup>2</sup><br>UL: 600 V / 51 A / AWG 12 - AWG 6                                                             |
| Packaging    | Box                                                                                                                                            |

Creation date May 11, 2025 9:27:35 PM CEST

Catalogue status 26.04.2025 / We reserve the right to make technical changes.

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**Technical data**
**Dimensions and weights**

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 39.5 mm  | Depth (inches)  | 1.555 inch |
| Height     | 33.3 mm  | Height (inches) | 1.311 inch |
| Width      | 50.8 mm  | Width (inches)  | 2 inch     |
| Net weight | 53.648 g |                 |            |

**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)                          | 0.4 "                               | Conductor outlet direction                 | 180°               |
| Number of poles                              | 4                                   | L1 in mm                                   | 40.64 mm           |
| L1 in inches                                 | 1.6 "                               | 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              |
| Protection degree                            | IP20                                | Can be coded                               | Yes                |
| Stripping length                             | 18 mm                               | 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 strength             | ≥ 10 <sup>8</sup> Ω |
| 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 <sup>2</sup> |
| Clamping range, max.                                                | 16 mm <sup>2</sup>  |
| 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 <sup>2</sup> |
| Solid, max. H05(07) V-U                                             | 10 mm <sup>2</sup>  |
| Stranded, min. H07V-R                                               | 10 mm <sup>2</sup>  |
| Stranded, max. H07V-R                                               | 16 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                                          | 2.5 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K                                          | 16 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, 2.5 mm <sup>2</sup> min. |                     |
| w. plastic collar ferrule, DIN 46228 pt 4, 16 mm <sup>2</sup> max.  |                     |
| w. wire end ferrule, DIN 46228 pt 1, 2.5 mm <sup>2</sup> min.       |                     |
| w. wire end ferrule, DIN 46228 pt 1, 16 mm <sup>2</sup> max.        |                     |

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|                     |                                        |                              |                             |       |
|---------------------|----------------------------------------|------------------------------|-----------------------------|-------|
| Clampable conductor | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 2.5 mm <sup>2</sup>         |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 20 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H2.5/25D BL</a> |       |
|                     |                                        | Stripping length             | nominal                     | 18 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H2.5/18</a>     |       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 4 mm <sup>2</sup>           |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 20 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H4.0/26D GR</a> |       |
|                     |                                        | Stripping length             | nominal                     | 18 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H4.0/18</a>     |       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 6 mm <sup>2</sup>           |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 20 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H6.0/26 SW</a>  |       |
|                     |                                        | Stripping length             | nominal                     | 18 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H6.0/18</a>     |       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 10 mm <sup>2</sup>          |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 21 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H10.0/28 EB</a> |       |
|                     |                                        | Stripping length             | nominal                     | 18 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H10.0/18</a>    |       |
|                     | Cross-section for conductor connection | Type                         | fine-wired                  |       |
|                     |                                        | nominal                      | 16 mm <sup>2</sup>          |       |
|                     | wire end ferrule                       | Stripping length             | nominal                     | 21 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H16.0/28 GN</a> |       |
|                     |                                        | Stripping length             | nominal                     | 18 mm |
|                     |                                        | Recommended wire-end ferrule | <a href="#">H16.0/18</a>    |       |

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

**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         | 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        | 1,000 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 |                                                                           |         |

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**Technical data**
**Rated data acc. to UL 1059**

Institute (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 | 355 mm |
| VPE width | 187 mm | VPE height | 76 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 and stranded 2.5 mm <sup>2</sup> conductor cross-section |
|                               |                | Type of conductor and solid 2.5 mm <sup>2</sup> conductor cross-section    |
|                               |                | Type of conductor and stranded 16 mm <sup>2</sup> conductor cross-section  |
|                               |                | Type of conductor and solid 10 mm <sup>2</sup> conductor cross-section     |
|                               |                | Type of conductor and AWG 12/1 conductor cross-section                     |
|                               |                | Type of conductor and AWG 12/19 conductor cross-section                    |
|                               |                | Type of conductor and AWG 4/1 conductor cross-section                      |
|                               |                | Type of conductor and AWG 4/19 conductor cross-section                     |
|                               | Evaluation     | passed                                                                     |

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

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**Technical data****Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | EC002638    |
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ETIM 10.0   | 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 |
| ECLASS 13.0 | 27-46-02-02 | ECLASS 14.0 | 27-46-02-02 |
| ECLASS 15.0 | 27-46-02-02 |             |             |

**Environmental Product Compliance**

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

**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"> <li>• Additional variants on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</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>• 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.</li> <li>• 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</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

**Approvals**

Approvals



|                         |                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approvals MAMID         | <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/</a> |
| ROHS                    | Conform                                                                                                                                                                     |
| UL File Number Search   | UL Website                                                                                                                                                                  |
| Certificate No. (cURus) | E60693                                                                                                                                                                      |

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## Technical data

### Downloads

|                             |                                                                                                                                                                                                              |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engineering Data            | <a href="#">CAD data – STEP</a>                                                                                                                                                                              |
| Product Change Notification | <a href="#">20220208 Visual change Temporarily different color for connectors and accessories</a><br><a href="#">20220208 Visuelle Änderung Vorübergehend anderer Farbton für Steckverbinder und Zubehör</a> |
| User Documentation          | <a href="#">Assembly instructions PUSH IN connector with actuator – BUF 10.16 IT</a><br><a href="#">QR-Code product handling video</a>                                                                       |
| Catalogues                  | <a href="#">Catalogues in PDF-format</a>                                                                                                                                                                     |

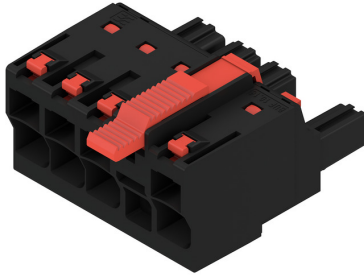
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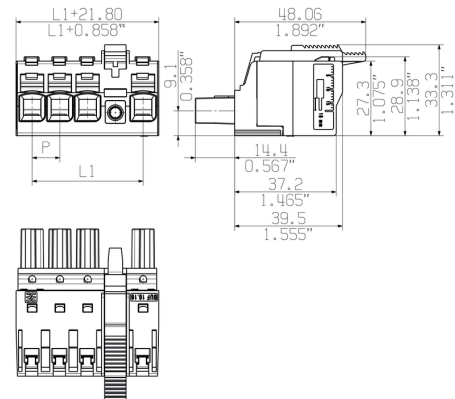
www.weidmueller.com

## **Drawings**

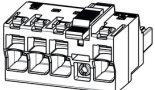
### **Product image**



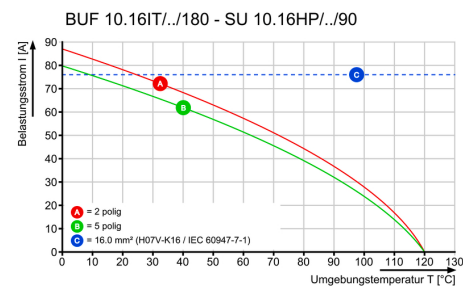
### **Dimensional drawing**



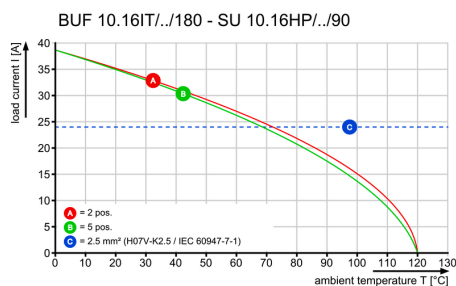
### **Connection diagram**

|                |                                  |                                                                                     |   |   |   |   |
|----------------|----------------------------------|-------------------------------------------------------------------------------------|---|---|---|---|
| 4              | M(S)F4                           | o                                                                                   | o | o | X | o |
| 4              | M(S)F3                           | o                                                                                   | o | X | o | o |
| 4              | M(S)F2                           | o                                                                                   | X | o | o | o |
| 3              | M(S)F3                           | o                                                                                   | o | X | o |   |
| 3              | M(S)F2                           | o                                                                                   | X | o | o |   |
| 2              | M(S)F2                           | o                                                                                   | X | o |   |   |
| NO OF<br>POLES | X = MIDDLE<br>FLANGE<br>POSITION | POS. 1 2 3 4 5                                                                      |   |   |   |   |
|                |                                  |  |   |   |   |   |

### **Graph**

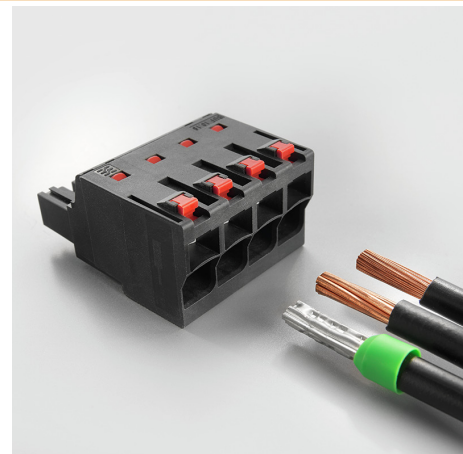


### **Graph**



Easy connection of conductors  
 WIRE READY

### **Product benefits**



Easy connection of conductors  
 WIRE READY

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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 mm<sup>2</sup> connector for 29 A (IEC) or 20 A (UL) up to the sturdy 16 mm<sup>2</sup> 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

**General ordering data**

| Type       | KO BU/SU 10.16HP WT        | Version                                                             | Product data | Packaging |
|------------|----------------------------|---------------------------------------------------------------------|--------------|-----------|
| Order No.  | <a href="#">2592600000</a> | PCB plug-in connector, Accessories, Coding element, Natural, Number |              | Box       |
| GTIN (EAN) | 4050118717389              | of poles: 1                                                         |              |           |
| Qty.       | 50 pc(s).                  |                                                                     |              |           |
| Type       | KO BU/SU 10.16HP BK        | Version                                                             | Product data | Packaging |
| Order No.  | <a href="#">1824410000</a> | PCB plug-in connector, Accessories, Coding element, black, Number   |              | Box       |
| GTIN (EAN) | 4032248326716              | of poles: 1                                                         |              |           |
| Qty.       | 50 pc(s).                  |                                                                     |              |           |

**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.  | <a href="#">9009020000</a> | Screwdriver, Screwdriver |
| GTIN (EAN) | 4032248266883              |                          |
| Qty.       | 1 pc(s).                   |                          |

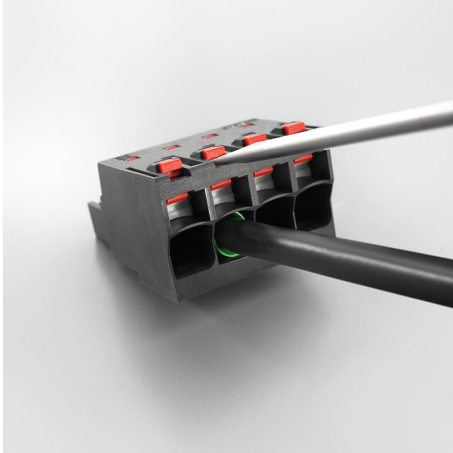
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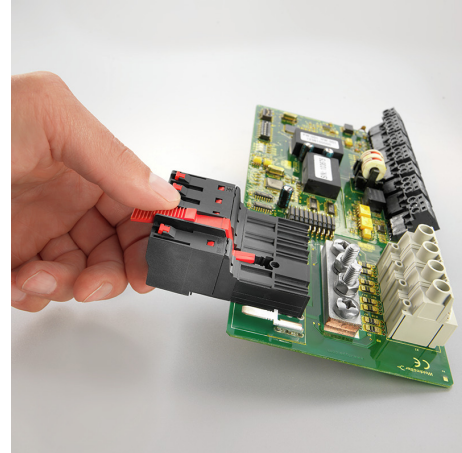
# Drawings

### Product benefits



Quick wiring

### Product benefits



Single-handed operation  
Automatic latching