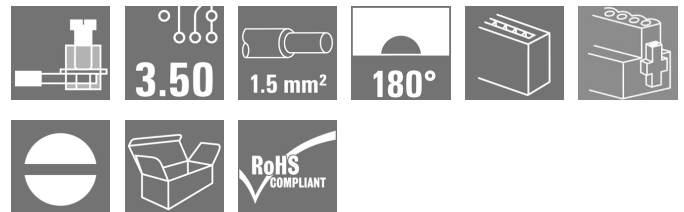


**OMNIMATE Signal - series BL/SL 3.50**  
**BL 3.50/09/180F SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
[www.weidmueller.com](http://www.weidmueller.com)



Female connectors with clamping yoke screw system for connecting conductors at 3.50 mm pitch. They provide space for labelling and can be coded.

**General ordering data**

|              |                                                                                                                                   |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Type         | BL 3.50/09/180F SN OR BX                                                                                                          |
| Order No.    | <a href="#">1606710000</a>                                                                                                        |
| Version      | PCB plug-in connector, female plug, 3.50 mm, No. of poles: 9, 180°, Clamping yoke connection, Clamping range, max. : 1.5 mm², Box |
| GTIN (EAN)   | 4008190084202                                                                                                                     |
| Qty.         | 48 pc(s).                                                                                                                         |
| Product data | IEC: 320 V / 17 A / 0.2 - 1.5 mm²<br>UL: 300 V / 10 A / AWG 28 - AWG 14                                                           |
| Packaging    | Box                                                                                                                               |

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## Technical data

### Dimensions and weights

|            |         |
|------------|---------|
| Net weight | 8.551 g |
|------------|---------|

### System parameters

|                                              |                                     |                                            |                     |
|----------------------------------------------|-------------------------------------|--------------------------------------------|---------------------|
| Product family                               | OMNIMATE Signal - series BL/SL 3.50 | Type of connection                         | Field connection    |
| Wire connection method                       | Clamping yoke connection            | Pitch in mm (P)                            | 3.5 mm              |
| Pitch in inches (P)                          | 0.138 inch                          | Conductor outlet direction                 | 180°                |
| No. of poles                                 | 9                                   | L1 in mm                                   | 28 mm               |
| L1 in inches                                 | 1.102 inch                          | Number of rows                             | 1                   |
| Pin series quantity                          | 1                                   | Rated cross-section                        | 1.5 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               |
| Can be coded                                 | Yes                                 | Stripping length                           | 6 mm                |
| Tightening torque for screw flange, min.     | 0.2 Nm                              | Tightening torque for screw flange, max.   | 0.25 Nm             |
| Tightening torque, min.                      | 0.2 Nm                              | Tightening torque, max.                    | 0.25 Nm             |
| Clamping screw                               | M 2                                 | Screwdriver blade                          | 0.4 x 2.5           |
| Screwdriver blade standard                   | DIN 5264                            | Plugging cycles                            | 25                  |
| push-in force/pole                           | 10 N                                | Withdrawal force per pole                  | 8 N                 |
| Packaging                                    | Box                                 |                                            |                     |

### Material data

|                                       |          |                                       |                          |
|---------------------------------------|----------|---------------------------------------|--------------------------|
| Insulating material                   | PBT      | Colour                                | Orange                   |
| Colour chart (similar)                | RAL 2000 | Insulating material group             | IIIa                     |
| CTI                                   | ≥ 200    | Insulation resistance                 | ≥ 10 <sup>8</sup> Ω      |
| UL 94 flammability rating             | V-0      | Contact material                      | Copper alloy             |
| Contact surface                       | tinned   | Layer structure of plug contact       | 4-8 µm Sn hot-dip tinned |
| Storage temperature, min.             | -25 °C   | Storage temperature, max.             | 55 °C                    |
| Max. relative humidity during storage | 80 %     | Operating temperature, min.           | -50 °C                   |
| Operating temperature, max.           | 100 °C   | Temperature range, installation, min. | -30 °C                   |
| Temperature range, installation, max. | 100 °C   |                                       |                          |

### Conductors suitable for connection

|                                                 |                      |                                                 |                     |
|-------------------------------------------------|----------------------|-------------------------------------------------|---------------------|
| Clamping range, min.                            | 0.08 mm <sup>2</sup> | Clamping range, max.                            | 1.5 mm <sup>2</sup> |
| Wire connection cross section AWG, min.         | AWG 28               | Wire connection cross section AWG, max.         | AWG 14              |
| Solid, min. H05(07) V-U                         | 0.2 mm <sup>2</sup>  | Solid, max. H05(07) V-U                         | 1.5 mm <sup>2</sup> |
| Flexible, min. H05(07) V-K                      | 0.2 mm <sup>2</sup>  | Flexible, max. H05(07) V-K                      | 1.5 mm <sup>2</sup> |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.2 mm <sup>2</sup>  | w. plastic collar ferrule, DIN 46228 pt 4, max. | 1.5 mm <sup>2</sup> |
| w. wire end ferrule, DIN 46228 pt 1, min.       | 0.2 mm <sup>2</sup>  | w. wire end ferrule, DIN 46228 pt 1, max.       | 1.5 mm <sup>2</sup> |
| Plug gauge acc. to EN 60999 a x b; Ø            | 2.4 mm x 1.5 mm      |                                                 |                     |

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**Technical data**
**Rated data acc. to IEC**

|                                                                              |                        |                                                                          |                   |
|------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------|-------------------|
| tested acc. to standard                                                      | IEC 60664-1, IEC 61984 | Rated current, min. no. of poles<br>(Tu=20°C)                            | 17 A              |
| Rated current, max. no. of poles<br>(Tu=20°C)                                | 12 A                   | Rated current, min. no. of poles<br>(Tu=40°C)                            | 14.5 A            |
| Rated current, max. no. of poles<br>(Tu=40°C)                                | 10 A                   | Rated voltage for surge voltage class /<br>pollution degree II/2         | 320 V             |
| Rated voltage for surge voltage class /<br>pollution degree III/2            | 160 V                  | Rated voltage for surge voltage class /<br>pollution degree III/3        | 160 V             |
| Rated impulse voltage for surge voltage<br>class/ pollution degree II/2      | 2.5 kV                 | Rated impulse voltage for surge voltage<br>class/ pollution degree III/2 | 2.5 kV            |
| Rated impulse voltage for surge voltage<br>class/ contamination degree III/3 | 2.5 kV                 | Short-time withstand current resistance                                  | 3 x 1s with 100 A |

**Rated data acc. to CSA**

|                               |                                                                                   |                               |                |
|-------------------------------|-----------------------------------------------------------------------------------|-------------------------------|----------------|
| Institute (CSA)               |  | Certificate No. (CSA)         | 154685-1318353 |
| Rated voltage (Use group B)   | 300 V                                                                             | Rated voltage (use group D)   | 300 V          |
| Rated current (use group B)   | 10 A                                                                              | Rated current (use group D)   | 10 A           |
| Wire cross-section, AWG, min. | AWG 28                                                                            | Wire cross-section, AWG, max. | AWG 14         |
| Reference to approval values  | Specifications are maximum values, details - see approval certificate.            |                               |                |

**Rated data acc. to UL 1059**

|                               |                                                                                     |                               |        |
|-------------------------------|-------------------------------------------------------------------------------------|-------------------------------|--------|
| Institute (UR)                |  | Certificate No. (UR)          | E60693 |
| Rated voltage (use group B)   | 300 V                                                                               | Rated voltage (use group D)   | 300 V  |
| Rated current (use group B)   | 10 A                                                                                | Rated current (use group D)   | 10 A   |
| Wire cross-section, AWG, min. | AWG 28                                                                              | Wire cross-section, AWG, max. | AWG 14 |
| Reference to approval values  | Specifications are maximum values, details - see approval certificate.              |                               |        |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001284    | ETIM 4.0   | EC002637    |
| ETIM 5.0   | EC002637    | ETIM 6.0   | EC002637    |
| UNSPSC     | 30-21-18-10 | eClass 5.1 | 27-26-07-04 |
| eClass 6.2 | 27-26-07-04 | eClass 7.1 | 27-44-04-02 |
| eClass 8.1 | 27-44-04-02 | eClass 9.0 | 27-44-04-02 |
| eClass 9.1 | 27-44-04-02 |            |             |

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## Technical data

### Notes

#### Notes

- Additional colours on request
- Gold-plated contact surfaces on request
- Rated current related to rated cross-section & min. No. of poles.
- Max. outer diameter of the conductor: 2.9 mm
- 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.

#### 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.

### Approvals

#### Approvals



#### ROHS

Conform

### Downloads

#### Approval/Certificate/Document of Conformity

[Declaration of the Manufacturer](#)

#### Brochure/Catalogue

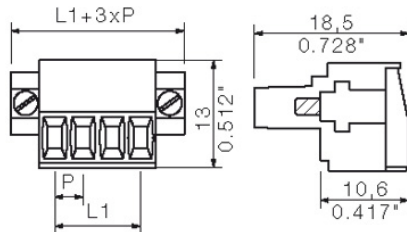
[FL DRIVES EN](#)  
[MB DEVICE MANUF. EN](#)  
[FL DRIVES DE](#)  
[CAT 2 PORTFOLIOGUIDE EN](#)  
[FL BUILDING SAFETY EN](#)  
[FL APPL LED LIGHTING EN](#)  
[FL INDUSTR.CONTROLS EN](#)  
[FL MACHINE SAFETY EN](#)  
[FL HEATING ELECTR EN](#)  
[FL APPL INVERTER EN](#)  
[FL\\_BASE\\_STATION\\_EN](#)  
[FL ELEVATOR EN](#)  
[FL POWER SUPPLY EN](#)  
[FL 72H SAMPLE SER EN](#)  
[PO OMNIMATE EN](#)

## OMNIMATE Signal - series BL/SL 3.50 BL 3.50/09/180F SN OR BX

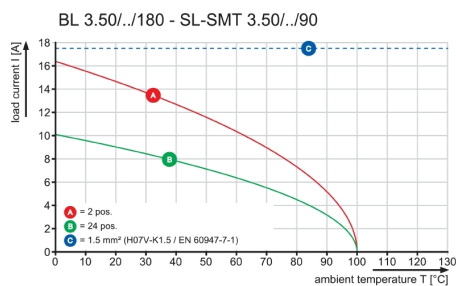
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## Drawings

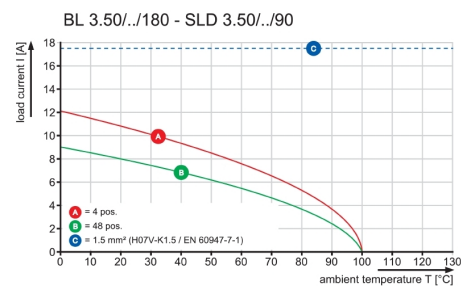
### Dimensional drawing



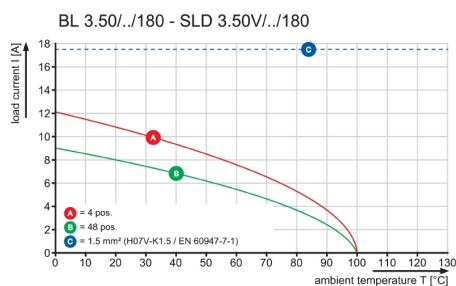
### Graph



### Graph



### Graph



### Graph

