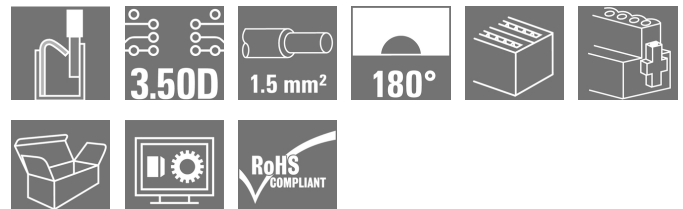


**OMNIMATE Signal - series B2C/S2C 3.50 - 2-row  
B2CF 3.50/24/180F SN BK BX**

**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)

**Product image**

Similar to illustration

**Two-row female plug with PUSH IN spring connection**

- Simply insert the prepared wire - and you're done
- Intuitive to use because
- the wire-entry area and handling area are clearly separated
- Integrated push-buttons for opening the terminal point
- High component density because of low heights
- Optional: locking and releasing require no tools when using Weidmüller's release latch (LR) or release lever (LH)

**General ordering data**

|              |                                                                                                                                            |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Type         | B2CF 3.50/24/180F SN BK BX                                                                                                                 |
| Order No.    | <a href="#">1277970000</a>                                                                                                                 |
| Version      | PCB plug-in connector, female plug, 3.50 mm, No. of poles: 24, 180°, PUSH IN, Tension-clamp connection, Clamping range, max.: 1.5 mm², Box |
| GTIN (EAN)   | 4050118068009                                                                                                                              |
| Qty.         | 36 pc(s).                                                                                                                                  |
| Product data | IEC: 320 V / 13.4 A / 0.14 - 1.5 mm²<br>UL: 300 V / 9.5 A / AWG 26 - AWG 16                                                                |
| Packaging    | Box                                                                                                                                        |

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

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Width      | 49 mm    | Width (inches)  | 1.929 inch |
| Height     | 15.2 mm  | Height (inches) | 0.598 inch |
| Depth      | 26.25 mm | Depth (inches)  | 1.033 inch |
| Net weight | 16.282 g |                 |            |

**system parameters**

|                                              |                                               |                                            |                     |
|----------------------------------------------|-----------------------------------------------|--------------------------------------------|---------------------|
| Product family                               | OMNIMATE Signal - series B2C/S2C 3.50 - 2-row | Type of connection                         | Field connection    |
| Wire connection method                       | PUSH IN, Tension-clamp connection             | Pitch in mm (P)                            | 3.5 mm              |
| Pitch in inches (P)                          | 0.138 inch                                    | Conductor outlet direction                 | 180°                |
| No. of poles                                 | 24                                            | L1 in mm                                   | 38.5 mm             |
| L1 in inches                                 | 1.516 inch                                    | Number of rows                             | 1                   |
| Pin series quantity                          | 2                                             | 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                           | 10 mm               |
| Tightening torque for screw flange, min.     | 0.2 Nm                                        | Tightening torque for screw flange, max.   | 0.25 Nm             |
| Actuating force actuating element, max.      | 40 N                                          | Screwdriver blade                          | 0.4 x 2.5           |
| Screwdriver blade standard                   | DIN 5264                                      | Plugging cycles                            | 25                  |
| Plugging force/pole, max.                    | 5 N                                           | Pulling force/pole, max.                   | 5 N                 |

**Material data**

|                                       |                          |                                       |                     |
|---------------------------------------|--------------------------|---------------------------------------|---------------------|
| Insulating material                   | PA 66 GF 30              | Colour                                | black               |
| Colour of operational elements        | orange                   | Material of operational elements      | PA 66/6             |
| Colour chart (similar)                | RAL 9011                 | Insulating material group             | II                  |
| CTI                                   | ≥ 600                    | Insulation strength                   | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-0                      | GWFI                                  | 960 °C              |
| Contact material                      | Copper alloy             | Contact surface                       | tinned              |
| Layer structure of plug contact       | 2-5 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.           | 120 °C              |
| Temperature range, installation, min. | -40 °C                   | Temperature range, installation, max. | 120 °C              |

**Conductors suitable for connection**

|                                                                      |                      |
|----------------------------------------------------------------------|----------------------|
| Clamping range, min.                                                 | 0.14 mm <sup>2</sup> |
| Clamping range, max.                                                 | 1.5 mm <sup>2</sup>  |
| Solid, min. H05(07) V-U                                              | 0.14 mm <sup>2</sup> |
| Solid, max. H05(07) V-U                                              | 1.5 mm <sup>2</sup>  |
| Flexible, min. H05(07) V-K                                           | 0.14 mm <sup>2</sup> |
| Flexible, max. H05(07) V-K                                           | 1.5 mm <sup>2</sup>  |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.14 mm <sup>2</sup> min. |                      |
| w. plastic collar ferrule, DIN 46228 pt 4, 1 mm <sup>2</sup> max.    |                      |
| w. wire end ferrule, DIN 46228 pt 1, min 0.14 mm <sup>2</sup>        |                      |
| w. wire end ferrule, DIN 46228 pt 1, 1.5 mm <sup>2</sup> max.        |                      |

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**Technical data**

|                     |                                                                                     |                  |                      |       |
|---------------------|-------------------------------------------------------------------------------------|------------------|----------------------|-------|
| Clampable conductor | Cross-section for conductor connection                                              | Type             | fine-wired           |       |
|                     |                                                                                     | nominal          | 0.5 mm <sup>2</sup>  |       |
|                     | AEH                                                                                 | Stripping length | nominal              | 12 mm |
|                     |                                                                                     | Stripping length | nominal              | 10 mm |
|                     | Cross-section for conductor connection                                              | Type             | fine-wired           |       |
|                     |                                                                                     | nominal          | 0.75 mm <sup>2</sup> |       |
|                     | AEH                                                                                 | Stripping length | nominal              | 12 mm |
|                     |                                                                                     | Stripping length | nominal              | 10 mm |
|                     | Cross-section for conductor connection                                              | Type             | fine-wired           |       |
|                     |                                                                                     | nominal          | 1 mm <sup>2</sup>    |       |
|                     | AEH                                                                                 | Stripping length | nominal              | 12 mm |
|                     |                                                                                     | Stripping length | nominal              | 10 mm |
|                     | Cross-section for conductor connection                                              | Type             | fine-wired           |       |
|                     |                                                                                     | nominal          | 1.5 mm <sup>2</sup>  |       |
|                     | AEH                                                                                 | Stripping length | nominal              | 10 mm |
| Reference text      | The outside diameter of the plastic collar should not be larger than the pitch (P). |                  |                      |       |
| Max. clamping range | 1.5 mm <sup>2</sup>                                                                 |                  |                      |       |

**Rated data acc. to IEC**

|                                                                           |                        |  |                                                                       |                  |
|---------------------------------------------------------------------------|------------------------|--|-----------------------------------------------------------------------|------------------|
| tested acc. to standard                                                   | IEC 60664-1, IEC 61984 |  | Rated current, min. no. of poles (Tu=20°C)                            | 13.4 A           |
| Rated current, max. no. of poles (Tu=20°C)                                | 10 A                   |  | Rated current, min. no. of poles (Tu=40°C)                            | 12 A             |
| Rated current, max. no. of poles (Tu=40°C)                                | 9 A                    |  | Rated voltage for surge voltage class / pollution degree II/2         | 320 V            |
| Rated voltage for surge voltage class / pollution degree III/2            | 160 V                  |  | Rated voltage for surge voltage class / pollution degree III/3        | 160 V            |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 2.5 kV                 |  | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 2.5 kV           |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 2.5 kV                 |  | Short-time withstand current resistance                               | 3 x 1s with 80 A |

**Rated data acc. to CSA**

|                                   |                                                                                     |  |                                   |                |
|-----------------------------------|-------------------------------------------------------------------------------------|--|-----------------------------------|----------------|
| Institute (CSA)                   |  |  | Certificate No. (CSA)             | 200039-1121690 |
| Rated voltage (Use group B / CSA) | 300 V                                                                               |  | Rated voltage (Use group C / CSA) | 50 V           |
| Rated voltage (Use group D / CSA) | 300 V                                                                               |  | Rated current (Use group B / CSA) | 9.5 A          |
| Rated current (Use group C / CSA) | 9.5 A                                                                               |  | Rated current (Use group D / CSA) | 9.5 A          |
| Wire cross-section, AWG, min.     | AWG 26                                                                              |  | Wire cross-section, AWG, max.     | AWG 16         |
| Reference to approval values      | Specifications are maximum values, details - see approval certificate.              |  |                                   |                |

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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) 300 V

Rated voltage (Use group D / UL 1059) 300 V

Rated current (Use group C / UL 1059) 9.5 A

Wire cross-section, AWG, min. AWG 26

Reference to approval values  
 Specifications are  
 maximum values, details -  
 see approval certificate.

Rated voltage (Use group C / UL 1059) 50 V

Rated current (Use group B / UL 1059) 9.5 A

Rated current (Use group D / UL 1059) 9.5 A

Wire cross-section, AWG, max. AWG 16

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 35 mm  |
| VPE width | 135 mm | VPE height | 350 mm |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 4.0   | EC002637    | ETIM 5.0   | EC002637    |
| ETIM 6.0   | EC002638    | eClass 6.2 | 27-26-07-04 |
| eClass 7.1 | 27-44-04-02 | eClass 8.1 | 27-44-04-02 |
| eClass 9.0 | 27-44-03-09 | eClass 9.1 | 27-44-03-09 |

# OMNIMATE Signal - series B2C/S2C 3.50 - 2-row B2CF 3.50/24/180F SN BK BX

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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.
- Crimp shape A for wire-end ferrules with crimping tools PZ 1,5 (order no. 9005990000) or PZ 6/5 (order no. 9011460000) for larger wire cross-sections recommended.
- 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.
- Max. outer diameter of the conductor 2.6 mm

Wire-end ferrule w/plastic collar DIN 46228/4 or Weidmüller colour code

- 1.00mm<sup>2</sup> [H1.0/18D] mtl. ferrule leng. 12mm, stripping leng. 15mm
- 0.75mm<sup>2</sup> [H0.75/18D] mtl. ferrule leng. 12mm, stripping leng. 14mm
- 0.50mm<sup>2</sup> [H0.5/16D] mtl. ferrule leng. 10mm, stripping leng. 12mm
- 0.34mm<sup>2</sup> [H0.34/12] mtl. ferrule leng. 8mm, stripping leng. 10mm
- 0.25mm<sup>2</sup> [H0.25/12] mtl. ferrule leng. 8mm, stripping leng. 10mm
- 0.14mm<sup>2</sup> [H0.14/12] mtl. ferrule leng. 8mm, stripping leng. 10mm

Wire-end ferrule w/o plastic collar acc. to DIN 46228/1

- 1.50mm<sup>2</sup> [H1.5/10] mtl. ferrule leng. 10mm, stripping leng. 10mm

Wire-end ferrule w/plastic collar DIN 46228/4 and 2 connec. cables

- 2 x 0.20mm<sup>2</sup> [H0.5/16] mtl. ferrule leng. 10mm, stripping leng. 12mm
- 2 x 0.34mm<sup>2</sup> [H1.0/18] mtl. ferrule leng. 12mm, stripping leng. 15mm

#### 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

## OMNIMATE Signal - series B2C/S2C 3.50 - 2-row B2CF 3.50/24/180F SN BK BX

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## Technical data

### Downloads

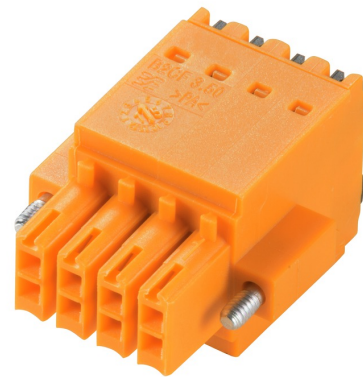
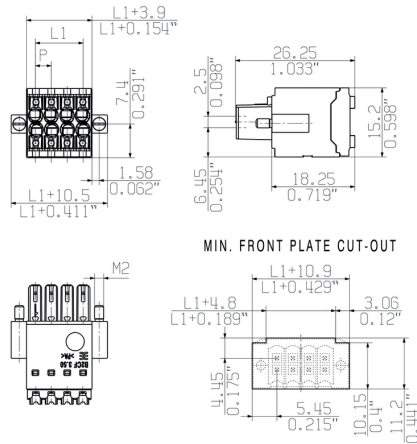
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">CAT 2 PORTFOLIOGUIDE EN</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FL INDUSTR.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</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> |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Engineering Data                            | <a href="#">STEP</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| User Documentation                          | <a href="#">Operating instruction</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| White Paper wire connection                 | <a href="#">Download Whitepaper</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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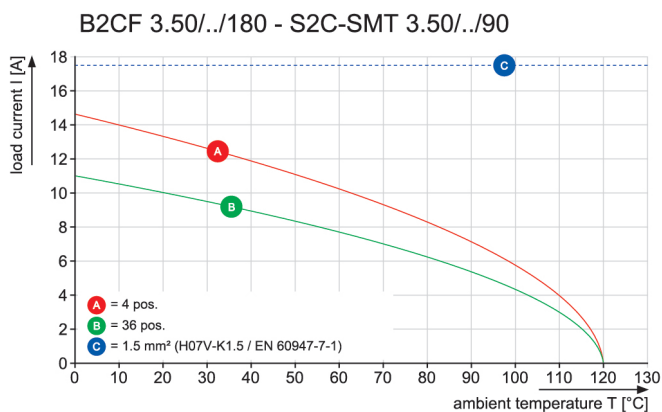
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## Drawings

### Dimensional drawing



### Graph

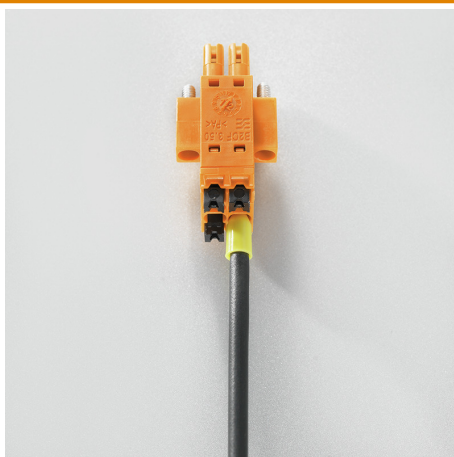


### Product benefits



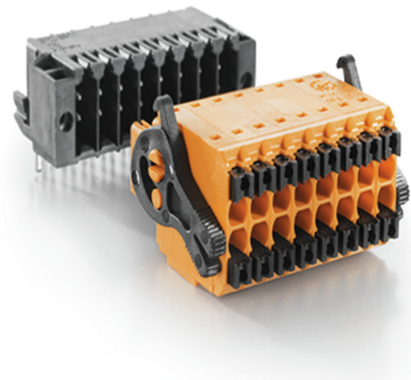
Solid PUSH IN contact  
Safe and durable

### Product benefits



Large connection cross-section  
Up to 1.5 mm possible with ease

### Product benefits



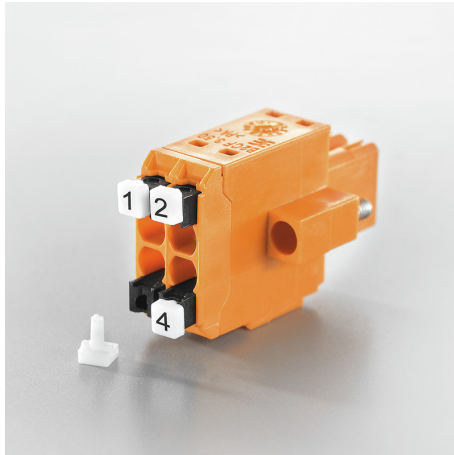
Fast PUSH IN connection  
Tool-free and touch-safe

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# Drawings

## Product benefits



Clear marking  
Unique designation

## Example of use

