

## B2CF 3.50/36/180 SN OR BX

Weidmüller Interfaces GmbH & Co. KG

Postfach 3030

32760 Detmold

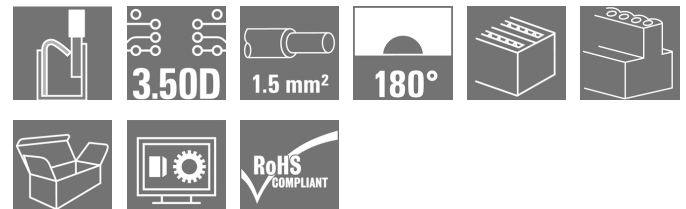
Tel. +49 5231 14-0

Fax. +49 5231 14-2083

info@weidmueller.com

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

|              |  |
|--------------|--|
| Version      | PCB plug-in connector, female plug, 3.50 mm, Number of poles: 36, 180°, PUSH IN, Spring connection, Clamping range, max.: 1.5 mm², Box |
| Order No.    | <a href="#">1277450000</a>   |
| Type         | B2CF 3.50/36/180 SN OR BX  |
| GTIN (EAN)   | 4050118067408  |
| Qty.         | 24 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  |

Creation date November 23, 2020 8:01:59 AM CET

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

|                |           |                 |            |
|----------------|-----------|-----------------|------------|
| Depth          | 26.25 mm  | Depth (inches)  | 1.033 inch |
| Height         | 15.2 mm   | Height (inches) | 0.598 inch |
| Net weight     | 23.684 g  | Width           | 63 mm      |
| Width (inches) | 2.48 inch |                 |            |

**System Parameters**

|  |   |  |                     |
|--|---|--|---------------------|
| Product family                               | OMNIMATE Signal - series B2C/S2C 3.50 - 2-row | Type of connection                         | Field connection    |
| Wire connection method                       | PUSH IN, Spring connection                    | Pitch in mm (P)                            | 3.5 mm              |
| Pitch in inches (P)                          | 0.138 inch                                    | Conductor outlet direction                 | 180°                |
| Number of poles                              | 36  | L1 in mm                                   | 59.5 mm             |
| L1 in inches                                 | 2.343 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               |
| 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                                | orange                     |
| Colour chart (similar)                | RAL 2000    | Insulating material group             | II                         |
| Comparative Tracking Index (CTI)      | ≥ 600       | Insulation strength                   | ≥ 10 <sup>8</sup> Ω        |
| UL 94 flammability rating             | V-0         | Contact material                      | Copper alloy               |
| Contact surface                       | tinned      | Layer structure of plug contact       | 2...5 µm Sn hot-dip tinned |
| Storage temperature, min.             | -40 °C      | Storage temperature, max.             | 70 °C                      |
| 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, min. | 0.14 mm <sup>2</sup>   | w. plastic collar ferrule, DIN 46228 pt 4, max. | 1 mm <sup>2</sup>   |
| w. wire end ferrule, DIN 46228 pt 1, min.       | 0.14 mm <sup>2</sup>   | w. wire end ferrule, DIN 46228 pt 1, max.       | 1.5 mm <sup>2</sup> |
| Reference text                                  | The outside diameter of the plastic collar should not be larger than the pitch (P). Length of ferrules is to be chosen depending on the product and the rated voltage. |   |                     |

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**Technical data**


**Rated data acc. to IEC**

|   |                        |   |                  |
|---|------------------------|---|------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 13.4 A           |
| Rated current, max. number of poles (Tu=20°C)                             | 10 A                   | Rated current, min. number of poles (Tu=40°C)                         | 12 A             |
| Rated current, max. number 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.            |                                   |                |

**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 C / UL 1059) | 50 V   |
| Rated voltage (Use group D / UL 1059) | 300 V   | Rated current (Use group B / UL 1059) | 9.5 A  |
| Rated current (Use group C / UL 1059) | 9.5 A   | Rated current (Use group D / UL 1059) | 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.              |                                       |        |

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 30 mm  |
| VPE width | 125 mm | VPE height | 350 mm |

**Type tests**

|                              |            |   |
|------------------------------|------------|---|
| Test: Durability of markings | Standard   | IEC 61984 section 6.2 and 7.3.2 / 10.11 taking pattern from IEC 60068-2-70 / 12.95                                    |
|                              | Test       | mark of origin, type identification, pitch, type of material, date clock, approval marking UL, approval marking cULus |
|                              | Evaluation | available   |
|                              | Test       | durability  |
|                              | Evaluation | passed  |

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IEC 61984 section 6.3 and 6.9.1 / 10.11, IEC 60512-135-08-00  
info@weidmueller.com

**Technical data**

|  |                |  |                               |
|--|----------------|--|-------------------------------|
| Test: Misengagement (Non-interchangeability) | Standard       | IEC 61984 section 6.3 and 6.9.1 / 10.11, IEC 60512-135-08-00                 |                               |
|  | Test           | 180° turned without coding elements  |                               |
|  | Evaluation     | passed   |                               |
|  | Test           | 180° turned with coding elements   |                               |
|  | Evaluation     | passed   |                               |
|  | Test           | visual examination   |                               |
| Test: Clampable cross section                | Standard       | IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.4.5.1 / 03.11 |                               |
|  | Conductor type | Type of conductor and conductor cross-section                                | solid 0.14 mm <sup>2</sup>    |
|  |                | Type of conductor and conductor cross-section                                | stranded 0.14 mm <sup>2</sup> |
|  |                | Type of conductor and conductor cross-section                                | solid 1.5 mm <sup>2</sup>     |
|  |                | Type of conductor and conductor cross-section                                | stranded 1.5 mm <sup>2</sup>  |
|  |                | Type of conductor and conductor cross-section                                | AWG 26/1                      |
|  |                | Type of conductor and conductor cross-section                                | AWG 26/19                     |
|  |                | Type of conductor and conductor cross-section                                | AWG 16/1                      |
|  |                | Type of conductor and conductor cross-section                                | AWG 16/19                     |
|  | Evaluation     | passed   |                               |

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Test for damage to and accidental loosening of conductors

|   |                |   |            |
|---|----------------|---|------------|
|   | Standard       | IEC 60999-1 section 9.4 / 11.99               |            |
|   | Requirement    | 0.2 kg info@weidmueller.com                   |            |
|   | Conductor type | Type of conductor and conductor cross-section | AWG 26/1   |
|   |                | Type of conductor and conductor cross-section | AWG 26/19  |
|   | Evaluation     | passed  |            |
|   | Requirement    | 0.3 kg  |            |
|   | Conductor type | Type of conductor and conductor cross-section | H05V-U0.75 |
|   |                | Type of conductor and conductor cross-section | H05V-K0.75 |
|   | Evaluation     | passed  |            |
|   | Requirement    | 0.4 kg  |            |
|   | Conductor type | Type of conductor and conductor cross-section | H07V-U1.5  |
|   |                | Type of conductor and conductor cross-section | H07V-K1.5  |
|   |                | Type of conductor and conductor cross-section | AWG 16/1   |
|   |                | Type of conductor and conductor cross-section | AWG 16/19  |
|   | Evaluation     | passed  |            |
| Pull-out test                                 | Standard       | IEC 60999-1 section 9.5 / 11.99               |            |
|   | Requirement    | ≥10 N   |            |
|   | Conductor type | Type of conductor and conductor cross-section | AWG 26/1   |
|   |                | Type of conductor and conductor cross-section | AWG 26/19  |
|   | Evaluation     | passed  |            |
|   | Requirement    | ≥20 N   |            |
|   | Conductor type | Type of conductor and conductor cross-section | H05V-U0.75 |
|   |                | Type of conductor and conductor cross-section | H05V-K0.75 |
|   | Evaluation     | passed  |            |
|   | Requirement    | ≥40 N   |            |
|   | Conductor type | Type of conductor and conductor cross-section | H07V-U1.5  |
|   |                | Type of conductor and conductor cross-section | H07V-K1.5  |
| Type of conductor and conductor cross-section |                | AWG 16/1                                      |            |
| Type of conductor and conductor cross-section |                | AWG 16/19                                     |            |
| Evaluation                                    | passed         |   |            |

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[info@weidmueller.com](mailto:info@weidmueller.com)

[www.weidmueller.com](http://www.weidmueller.com) EC002638

eClass 9.1 27-44-03-09

eClass 11.0 27460202

**Technical data**

**Classifications**

|             |             |             |                     |
|-------------|-------------|-------------|---------------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | www.weidmueller.com |
| eClass 9.0  | 27-44-03-09 | eClass 9.1  | 27-44-03-09         |
| eClass 10.0 | 27-44-03-09 | eClass 11.0 | 27460202            |

**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.

**Approvals**

Approvals



|                       |         |
|-----------------------|---------|
| ROHS                  | Conform |
| UL File Number Search | E60693  |

**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="#">FLIndustr.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="#">STEP</a>   |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>   |
| User Documentation                          | <a href="#">Operating instruction</a>  |

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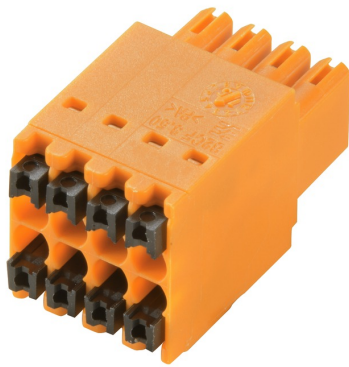
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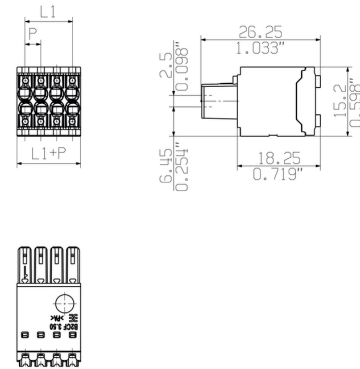
**Drawings**

**Product image**

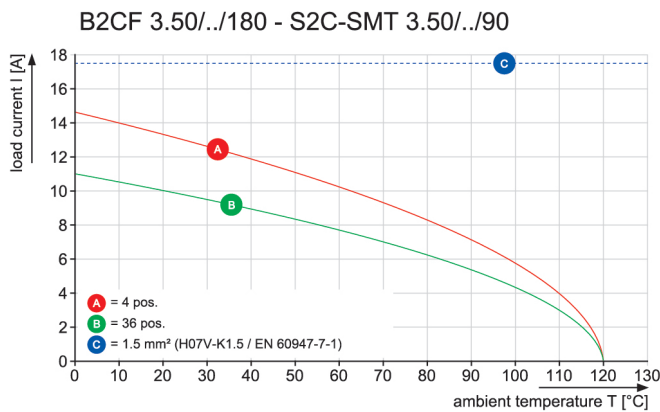


similar to illustration

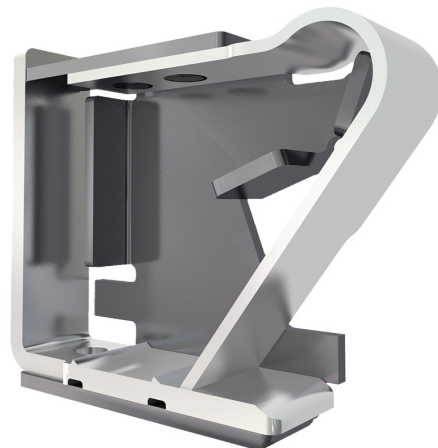
**Dimensional drawing** [info@weidmueller.com](mailto:info@weidmueller.com)



**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

**B2CF 3.50/36/180 SN OR BX****Weidmüller Interfaces GmbH & Co. KG**

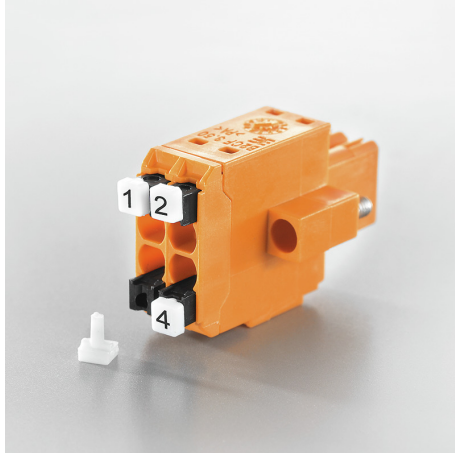
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**Drawings****Product benefits**Clear marking  
Unique designation**Example of use**