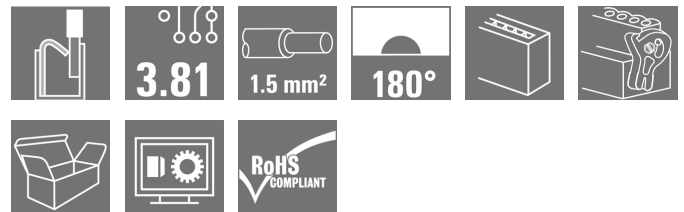


## OMNIMATE Signal - series BC/SC 3.81 BCF 3.81/07/180LR SN OR BX

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



PUSH IN - Weidmüller's innovative connection system simplifies the wire connection process.

The benefits for users and applications:

- High packaging density due to very low component height. Simply insert the prepared wire - finished
- High component density with the compact SCDN / SCDN-THR two-tier pin header
- Simplified processing due to integrated push buttons for opening the clamping unit
- Intuitive handling – since the wire-entry area and handling area are clearly separated
- tool-free locking and releasing when using Weidmüller's patented release latch (LR)

The Weidmüller plug-in connectors, pitch 3.81 mm (0.15 inch), are compatible with the layout of customary plug-in connectors, can be coded and provide space for printing.

### General ordering data

|                     |   |
|---------------------|---|
| Delivery status     | <b>This article will no longer be available in the future.</b>  |
| Available until     | 2019-12-31  |
| Type                | BCF 3.81/07/180LR SN OR BX  |
| Order No.           | <a href="#">1972250000</a>  |
| Version             | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 7, 180°, PUSH IN, Clamping range, max.: 1.5 mm², Box |
| GTIN (EAN)          | 4032248681235   |
| Qty.                | 50 pc(s).   |
| Product data        | IEC: 320 V / 17.5 A / 0.14 - 1.5 mm²<br>UL: 300 V / 10 A / AWG 26 - AWG 16                                      |
| Packaging           | Box   |
| Alternative product | <a href="#">2442650000</a>  |

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

Net weight 6.17 g

**System parameters**

| Product family                               |           | Type of connection                           |                   |
|--|-----------|--|-------------------|
| OMNIMATE Signal - series BC/SC 3.81          |           | Field connection                             |                   |
| Wire connection method                       | PUSH IN   | Pitch in mm (P)                              | 3.81 mm           |
| Pitch in inches (P)                          | 0.15 inch | Conductor outlet direction                   | 180°              |
| No. of poles                                 | 7         | L1 in mm                                     | 22.86 mm          |
| L1 in inches                                 | 0.9 inch  | Number of rows                               | 1                 |
| Pin series quantity                          | 1         | Rated cross-section                          | 1 mm <sup>2</sup> |
| Touch-safe protection acc. to DIN VDE 57 106 |           | Touch-safe protection acc. to DIN VDE 0470   |                   |
| Safe from finger touch                       |           | IP 20  |                   |
| Volume resistance                            | 6.00 mΩ   | Can be coded                                 | Yes               |
| Stripping length                             | 9 mm      | Actuating force actuating element, max. 40 N |                   |
| Screwdriver blade                            | 0.4 x 2.5 | Screwdriver blade standard                   | DIN 5264          |
| Plugging cycles                              | 25        | push-in force/pole                           | 0 N               |
| Packaging                                    | Box       |  |                   |

**Material data**

| Insulating material                   |          | Colour                                |                     |
|---------------------------------------|----------|---------------------------------------|---------------------|
| PA GF                                 |          | Orange                                |                     |
| Colour chart (similar)                | RAL 2000 | Insulating material group             | II                  |
| CTI                                   | ≥ 550    | Insulation resistance                 | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-0      | Layer structure of plug contact       | 4-8 μm Sn matt      |
| 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. | -25 °C              |
| Temperature range, installation, max. | 120 °C   |                                       |                     |

**Conductors suitable for connection**

| Clamping range, min.                            |                        | Clamping range, max.                            |                     |
|---|------------------------|---|---------------------|
| 0.14 mm <sup>2</sup>                            |                        | 1.5 mm <sup>2</sup>                             |                     |
| Wire connection cross section AWG, min.         | AWG 26                 | Wire connection cross section AWG, max.         | AWG 16              |
| 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. | 0.25 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.       | 0.25 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; 1.9mm |   |                     |

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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 (Tu=20°C)                            | 17.5 A           |
| Rated current, max. no. of poles (Tu=20°C)                                | 17.5 A                 | Rated current, min. no. of poles (Tu=40°C)                            | 17.5 A           |
| Rated current, max. no. of poles (Tu=40°C)                                | 16.3 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 76 A |

**Rated data acc. to CSA**

|                               |   |                               |                |
|-------------------------------|---|-------------------------------|----------------|
| Institute (CSA)               |  | Certificate No. (CSA)         | 200039-1121690 |
| Rated voltage (Use group B)   | 300 V   | Rated voltage (Use group C)   | 50 V           |
| Rated voltage (use group D)   | 300 V   | Rated current (use group B)   | 11 A           |
| Rated current (use group C)   | 11 A  | Rated current (use group D)   | 11 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)   | 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 26  | Wire cross-section, AWG, max. | AWG 16 |
| Reference to approval values  | Specifications are maximum values, details - see approval certificate.              |                               |        |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| 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          | <ul style="list-style-type: none"> <li>• Additional colours on request</li> <li>• 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.</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>• Conductors suitable for connection: 1.5 mm<sup>2</sup> with wire-end ferrule with plastic collar, DIN 46 228/1, with a rated voltage of 125V/2.5 kV with III/3 or 250 V/2.5 kV with II/2</li> </ul> |
| IPC conformity | The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.   |

### Approvals

Approvals



ROHS Conform

### Downloads

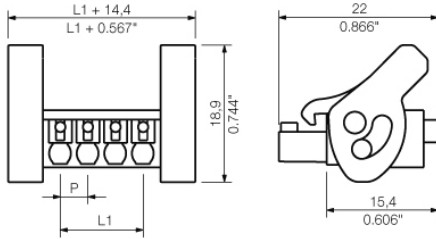
|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>  |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">CAT 2 PORTFOLIOGUIDE 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="#">EPLAN_WSCAD</a>  |
| User Documentation                          | <a href="#">BPZL_PUSH_IN_Connectors_BCF_3_81_EN</a>  |
| White Paper wire connection                 | <a href="#">Download Whitepaper</a>  |

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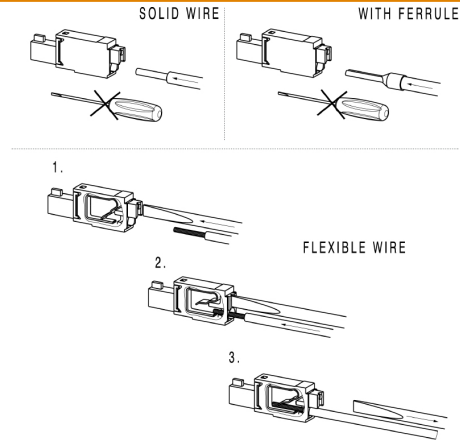
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**Drawings**

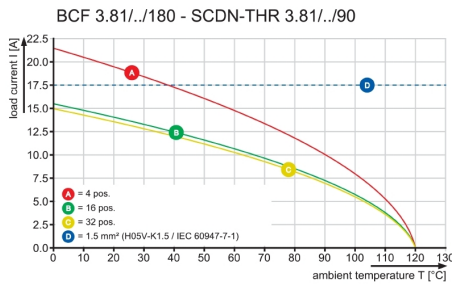
**Dimensional drawing**



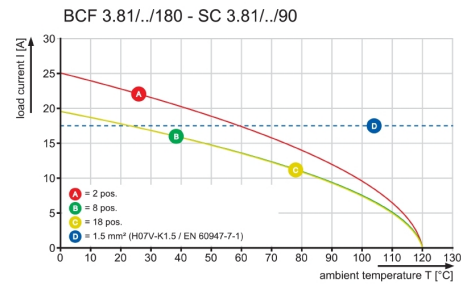
**Example of use**



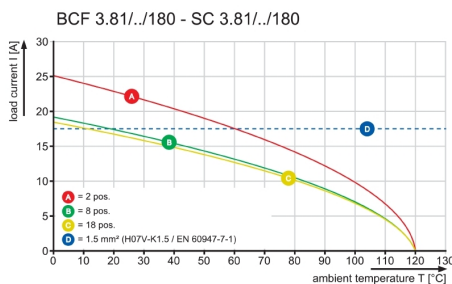
**Graph**



**Graph**



**Graph**



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