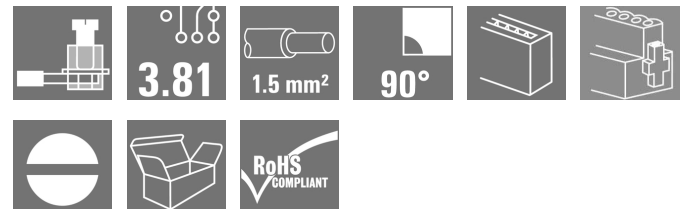


## OMNIMATE Signal - series BC/SC 3.81 BCZ 3.81/10/90F SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 1429-0  
Fax: +49 5231 14292083  
www.weidmueller.com



Female socket connectors with clamping-yoke screw system for connecting wires.

Three wire-outlet directions are available and provide flexible connection-level design options:

- 180° wire parallel to plugging direction
- 90° wire perpendicular and above plugging direction
- 270° wire perpendicular and below plugging direction

There are three housing shapes, covering many different requirements, to choose from:

- Standard housing without flange
- Flange with screw (F)
- Flange featuring Weidmüller's patented release latch (LR) for lock-and-release latching with no strain and no tools needed.

Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of customary connectors and offer space for labelling and coding.

### General ordering data

|              |   |
|--------------|---|
| Type         | BCZ 3.81/10/90F SN OR BX  |
| Order No.    | <a href="#">1940060000</a>  |
| Version      | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 10, 90°, Clamping yoke connection, Clamping range, rated connection, max.: 1.5 mm <sup>2</sup> , Box |
| GTIN (EAN)   | 4032248656769   |
| Qty.         | 50 pc(s).   |
| Product data | IEC: 320 V / 17.5 A / 0.2 - 1.5 mm <sup>2</sup><br>UL: 300 V / 10 A / AWG 28 - AWG 16   |
| Packaging    | Box   |

**OMNIMATE Signal - series BC/SC 3.81  
BCZ 3.81/10/90F SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 1429-0  
 Fax: +49 5231 14292083  
 www.weidmueller.com

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

|            |      |
|------------|------|
| Net weight | 10 g |
|------------|------|

**System parameters**

| Product family                               |                          | Type of connection                         |                   |
|--|--------------------------|--|-------------------|
| OMNIMATE Signal - series BC/SC 3.81          |                          | Field connection                           |                   |
| Wire connection method                       | Clamping yoke connection | Pitch in mm (P)                            | 3.81 mm           |
| Pitch in inches (P)                          | 0.15 inch                | Conductor outlet direction                 | 90°               |
| No. of poles                                 | 10                       | L1 in mm                                   | 34.29 mm          |
| L1 in inches                                 | 1.35 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                             | 7 mm                     | Tightening torque for screw flange, min.   | 0.2 Nm            |
| Tightening torque for screw flange, max.     | 0.3 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                         | 0 N               |
| Packaging                                    | Box                      |  |                   |

**Material data**

|                                       |                           |                                       |                     |
|---------------------------------------|---------------------------|---------------------------------------|---------------------|
| Insulating material                   | PA GF                     | Colour                                | 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                       | Contact surface                       | tinned              |
| Layer structure of plug contact       | 0.5-1.5 μm Cu / 2-5 μm Sn | 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, rated connection, min.          | 0.08 mm <sup>2</sup>     | Clamping range, rated connection, max.          | 1.5 mm <sup>2</sup> |
| Wire connection cross section AWG, min.         | AWG 28                   | Wire connection cross section AWG, max.         | AWG 16              |
| 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 ; 2.4 mm |   |                     |


**OMNIMATE Signal - series BC/SC 3.81  
BCZ 3.81/10/90F SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 1429-0  
 Fax: +49 5231 14292083  
 www.weidmueller.com


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

|   |                        |   |                  |
|---|------------------------|---|------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. no. of poles (Ta = 20°C)                          | 17.5 A           |
| Rated current, max. no. of poles (Ta = 20°C)                              | 15.9 A                 | Rated current, min. no. of poles (Ta = 40°C)                          | 17.5 A           |
| Rated current, max. no. of poles (Ta = 40°C)                              | 14.1 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 current (use group B)   | 8 A   | Rated current (use group C)   | 8 A            |
| Wire cross-section, AWG, min. | AWG 28  | 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 28  | 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 |

**Data sheet**

**OMNIMATE Signal - series BC/SC 3.81  
BCZ 3.81/10/90F SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 1429-0  
Fax: +49 5231 14292083  
www.weidmueller.com

**Technical data**

**Notes**

|                |  |
|----------------|--|
| Notes          | <ul style="list-style-type: none"> <li>• Additional colours on request</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> </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**

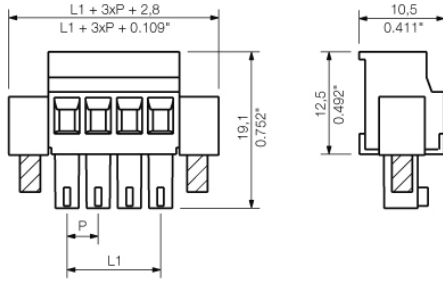
|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>  |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">CAT 2 PORTFOLIOGUIDE 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> |

**OMNIMATE Signal - series BC/SC 3.81  
BCZ 3.81/10/90F SN OR BX**

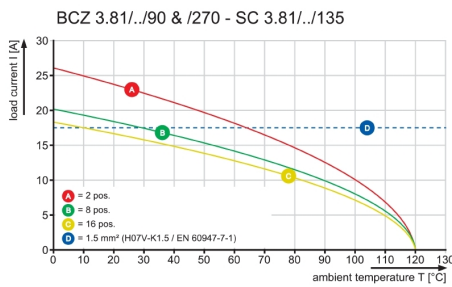
**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 16  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 1429-0  
 Fax: +49 5231 14292083  
 www.weidmueller.com

Drawings

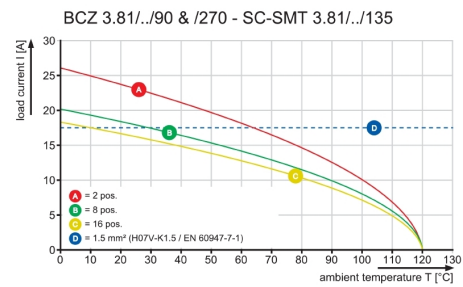
Dimensional drawing



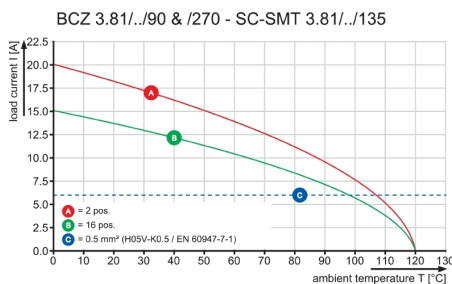
Graph



Graph



Graph



Graph

