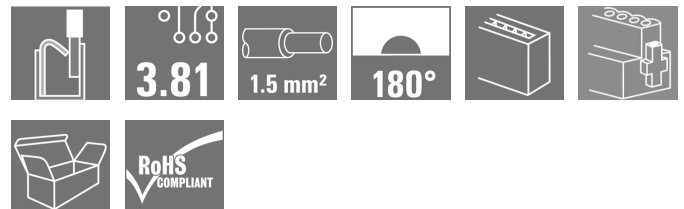


OMNIMATE Signal - series BC/SC 3.81 BCF 3.81/03/180F SN OR BX

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



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

| | |
|--------------|---|
| Type | BCF 3.81/03/180F SN OR BX |
| Order No. | 1970330000 |
| Version | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 3, 180°, PUSH IN, Clamping range, max. : 1.5 mm ² , Box |
| GTIN (EAN) | 4032248679928 |
| Qty. | 50 pc(s). |
| Product data | IEC: 320 V / 17.5 A / 0.14 - 1.5 mm ² UL: 300 V / 10 A / AWG 26 - AWG 16 |
| Packaging | Box |

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Technical data
Dimensions and weights

Net weight 3.5 g

System parameters

| Product family | | Type of connection | |
|--|-------------------------------------|--|-------------------|
| Product family | OMNIMATE Signal - series BC/SC 3.81 | Type of connection | 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 | 3 | L1 in mm | 7.62 mm |
| L1 in inches | 0.3 inch | Number of rows | 1 |
| Pin series quantity | 1 | Rated cross-section | 1 mm ² |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch | Touch-safe protection acc. to DIN VDE 0470 | IP 20 |
| Volume resistance | 6.00 mΩ | Can be coded | Yes |
| Stripping length | 9 mm | Tightening torque for screw flange, min. | 0.2 Nm |
| Tightening torque for screw flange, max. | 0.3 Nm | 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 | |
|---------------------------------------|----------|---------------------------------------|---------------------|
| Insulating material | PA GF | Colour | Orange |
| Colour chart (similar) | RAL 2000 | Insulating material group | II |
| CTI | ≥ 550 | Insulation resistance | ≥ 10 ⁸ 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. | |
|---|------------------------|---|---------------------|
| Clamping range, min. | 0.14 mm ² | Clamping range, max. | 1.5 mm ² |
| 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 ² | Solid, max. H05(07) V-U | 1.5 mm ² |
| Flexible, min. H05(07) V-K | 0.14 mm ² | Flexible, max. H05(07) V-K | 1.5 mm ² |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm ² | w. plastic collar ferrule, DIN 46228 pt 4, max. | 1 mm ² |
| w. wire end ferrule, DIN 46228 pt 1, min. | 0.25 mm ² | w. wire end ferrule, DIN 46228 pt 1, max. | 1.5 mm ² |
| 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 |

Data sheet

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Technical data

Notes

| | |
|----------------|--|
| Notes | <ul style="list-style-type: none"> • Additional colours on request • 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. • Rated current related to rated cross-section & min. No. of poles. • 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. • Conductors suitable for connection: 1.5 mm² 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 |
| 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

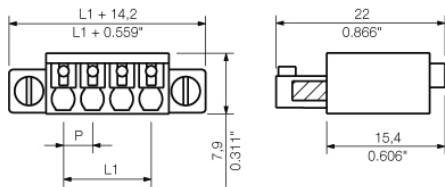
| | |
|---|--|
| Approval/Certificate/Document of Conformity | Declaration of the Manufacturer |
| Brochure/Catalogue | FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL BUILDING SAFETY EN FL APPL LED LIGHTING EN FLIndustr.CONTROLS EN FL MACHINE SAFETY EN FL HEATING ELECTR EN FL APPL INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN |
| User Documentation | BPZL_PUSH_IN_Connectors_BCF_3_81_EN |
| White Paper wire connection | Download Whitepaper |

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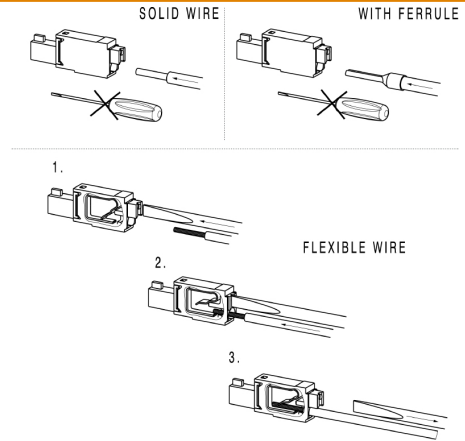
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Drawings

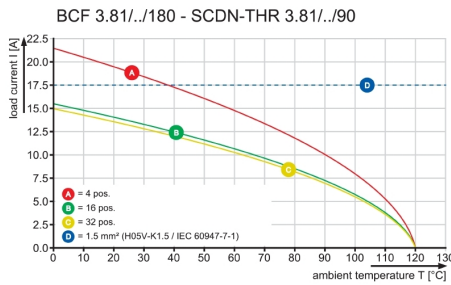
Dimensional drawing



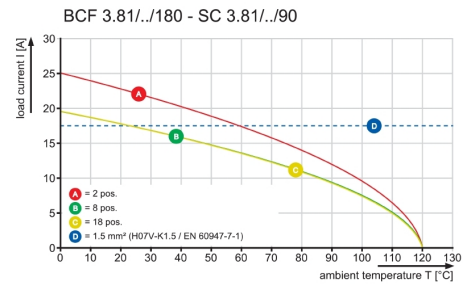
Example of use



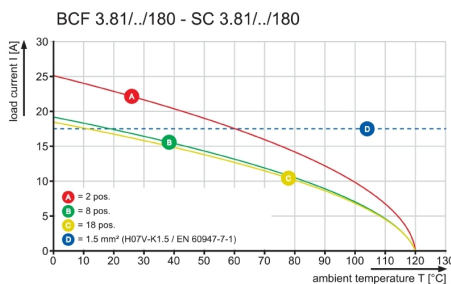
Graph



Graph



Graph



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