

**BC/SC 3.81 series**  
**BCF 3.81/10/180F SN OR BX**
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

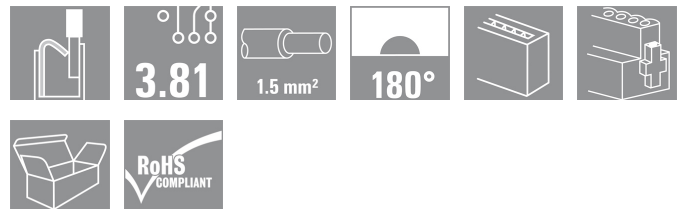
D-32758 Detmold

Germany

Fon: +49 5231 14-0

Fax: +49 5231 14-2083

www.weidmueller.com



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

The benefits for users and applications:

- High component density because of very low height. Simply insert prepared wire and you're ready to go.
- High component density with the compact SCDN / SCDN-THR two-tier pin header
- Simplified processing, featuring integrated push buttons for opening the wire-terminal point
- Intuitive handling – since the wire-entry area and handling area are clearly separated.
- Lock and release requires no tools when using Weidmüller's patented (LR) release latch.

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.

- 0.20 - 1.5 mm<sup>2</sup> (IEC) / 28 - 16 AWG (UL)
- 250 V (IEC) / 300 V (UL)
- 17.5 A (IEC) / 10 A (UL)

**General ordering data**

|              |                                                                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Order No.    | <a href="#">1970580000</a>                                                                                                                      |
| Type         | BCF 3.81/10/180F SN OR BX                                                                                                                       |
| Version      | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 10, 180°, PUSH IN, Clamping range, rated connection, max.: 1.5 mm <sup>2</sup> , Box |
| GTIN (EAN)   | 4032248679997                                                                                                                                   |
| Qty.         | 50 pc(s).                                                                                                                                       |
| Product data | IEC: 320 V / 17.5 A / 0.14 - 1.5 mm <sup>2</sup><br>UL: 300 V / 10 A / AWG 24 - AWG 16                                                          |
| Packaging    | Box                                                                                                                                             |

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## Technical data

### Dimensions

Net weight 7.44 g

### System parameters

|                                            |                   |                                              |                        |
|--------------------------------------------|-------------------|----------------------------------------------|------------------------|
| Product family                             | BC/SC 3.81 series | Conductor connection system                  | PUSH IN                |
| Outgoing direction of conductor            | 180°              | Pitch in mm (P)                              | 3.81 mm                |
| Pitch in inches (P)                        | 0.15 inch         | No. of poles                                 | 10                     |
| Number of rows                             | 1                 | Screwdriver blade                            | 0.4 x 2.5              |
| Screwdriver blade standard                 | DIN 5264          | Stripping length                             | 8 mm                   |
| L1 in mm                                   | 34.29 mm          | L1 in inches                                 | 1.35 inch              |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20             | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |

### Material data

|                                  |                     |                                  |              |
|----------------------------------|---------------------|----------------------------------|--------------|
| Insulating material              | PA GF               | Colour                           | Orange       |
| Colour chart                     | Similar to RAL 2000 | Flammability class UL 94         | V-0          |
| CTI                              | ≥ 550               | Contact material                 | Copper alloy |
| Contact surface                  | tinned              | Continuous operating temp., min. | -25 °C       |
| Continuous operating temp., max. | 120 °C              |                                  |              |

### Connectable conductors

|                                                 |                        |                                                 |                     |
|-------------------------------------------------|------------------------|-------------------------------------------------|---------------------|
| Clamping range, rated connection, min.          | 0.14 mm <sup>2</sup>   | Clamping range, rated connection, max.          | 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. 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> |
| w. plastic collar ferrule, DIN 46228 pt 4, min. | 0.25 mm <sup>2</sup>   | w. plastic collar ferrule, DIN 46228 pt 4, max. | 1.5 mm <sup>2</sup> |
| Plug gauge acc. to EN 60999 a x b; Ø            | 2.4 mm x 1.5 mm; 1.9mm |                                                 |                     |

### DIN IEC rating data

|                                                                       |                  |                                                                           |        |
|-----------------------------------------------------------------------|------------------|---------------------------------------------------------------------------|--------|
| 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, number of poles (Tu=40°C), min                         | 17.5 A           | Rated current, number of poles (Tu=40°C), max.                            | 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 |                                                                           |        |

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**Technical data**
**CSA rating data**

Institute (CSA)



Rated voltage (Use group B)

300 V

Rated current (use group B) 10 A

Rated voltage (use group D) 300 V

Rated current (use group D) 10 A

Wire cross-section, AWG, min. AWG 24

Wire cross-section, AWG, max. AWG 16

**UL 1059 rating data**

Rated voltage (use group B) 300 V

Rated current (use group B) 10 A

Rated voltage (use group D) 300 V

Rated current (use group D) 10 A

Wire cross-section, AWG, min. AWG 24

Wire cross-section, AWG, max. AWG 16

**Classifications**

UNSPSC 30-21-18-10

eClass 5.1

27-26-07-04

eClass 6.0 27-26-07-04

eClass 7.0

27-44-04-02

**Notes**

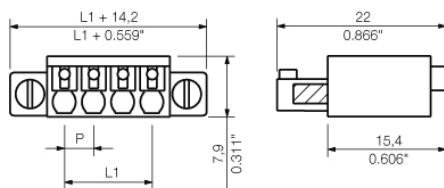
Notes

- Additional colours on request
- Gold-plated contact surfaces on request
- We recommend crimp shape A for wire-end ferrules with crimping tools PZ 1,5 (order no. 9005990000) or PZ 6/5 (order no. 9011460000) for the larger wire cross-sections.
- Rated current related to rated cross-section and 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 drg. = 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.

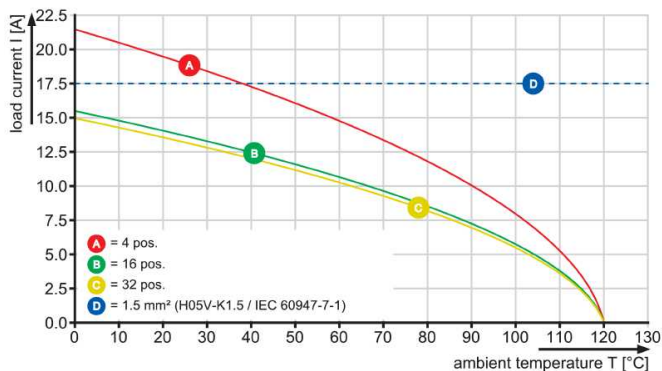
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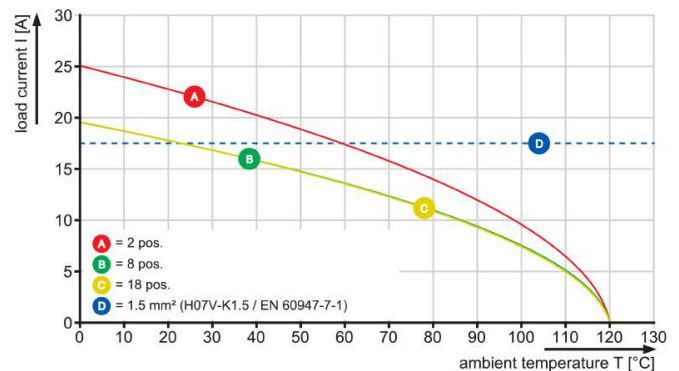
## Drawings



BCF 3.81/./180 - SCDN-THR 3.81/./90



BCF 3.81/./180 - SC 3.81/./90



BCF 3.81/./180 - SC 3.81/./180

