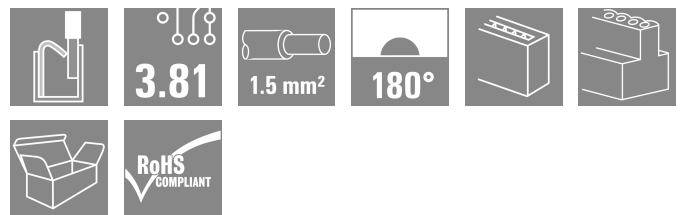
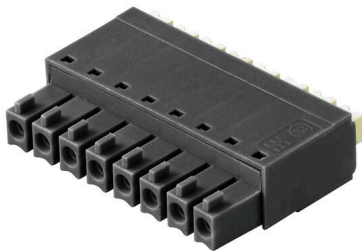


## BCF 3.81/03/180 SN BK BX PRT

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

www.weidmueller.com

## Product image



Similar to illustration

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

Version	PCB plug-in connector, female plug, 3.81 mm, Number of poles: 3, 180°, PUSH IN with actuator, Clamping range, max.: 1.5 mm², Box
Order No.	<a href="#">2551020000</a>
Type	BCF 3.81/03/180 SN BK BX PRT
GTIN (EAN)	4050118561050
Qty.	50 items
Product data	IEC: 320 V / 17.5 A / 0.14 - 1.5 mm² UL: 300 V / 10 A / AWG 26 - AWG 16
Packaging	Box

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## Technical data

## Approvals

ROHS	Conform
------	---------

## Dimensions and weights

Depth	22 mm	Depth (inches)	0.8661 inch
Height	7.9 mm	Height (inches)	0.311 inch
Width	11.52 mm	Width (inches)	0.4535 inch
Net weight	2.2 g		

## Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

## System Parameters

Product family	OMNIMATE Signal - series BC/SC 3.81	Type of connection	Field connection
Wire connection method	PUSH IN with actuator	Pitch in mm (P)	3.81 mm
Pitch in inches (P)	0.150 "	Conductor outlet direction	180°
Number of poles	3	L1 in mm	7.62 mm
L1 in inches	0.300 "	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	Safe from finger touch	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Protection degree	IP20	Volume resistance	≤5 mΩ
Can be coded	Yes	Stripping length	9 mm
Screwdriver blade	0.4 x 2.5	Screwdriver blade standard	DIN 5264
Plugging cycles	25	Plugging force/pole, max.	8 N
Pulling force/pole, max.	7 N		

## Material data

Insulating material	PA 66 GF 30	Colour	black
Colour of operational elements	white	Colour chart (similar)	RAL 9011
Insulating material group	II	Comparative Tracking Index (CTI)	≥ 550
Insulation resistance	≥ 108 Ω	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of plug contact	4...8 μm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
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.	0.14 mm <sup>2</sup>
Clamping range, 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>

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**Technical data**

w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm<sup>2</sup> min.

w. plastic collar ferrule, DIN 46228 pt 4, 1 mm<sup>2</sup> max.

w. wire end ferrule, DIN 46228 pt 1, 0.25 mm<sup>2</sup> min.

w. wire end ferrule, DIN 46228 pt 1, 1.5 mm<sup>2</sup> max.

Plug gauge in accordance with EN 60999 a x b; ø 2.4 mm x 1.5 mm; 1.9mm

Clampable conductor	Cross-section for conductor connection	Type	fine-wired		
		nominal	0.5 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal	12 mm	
		Recommended wire-end ferrule	<a href="#">H0.5/16 OR</a>		
		Stripping length	nominal	10 mm	
		Recommended wire-end ferrule	<a href="#">H0.5/10</a>		
	Cross-section for conductor connection	Type	fine-wired		
		nominal	0.75 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal	12 mm	
		Recommended wire-end ferrule	<a href="#">H0.75/16 W</a>		
		Stripping length	nominal	10 mm	
		Recommended wire-end ferrule	<a href="#">H0.75/10</a>		
	Cross-section for conductor connection	Type	fine-wired		
		nominal	1 mm <sup>2</sup>		
	wire end ferrule	Stripping length	nominal	12 mm	
		Recommended wire-end ferrule	<a href="#">H1.0/16D R</a>		
Stripping length		nominal	10 mm		
Recommended wire-end ferrule		<a href="#">H1.0/10</a>			
Cross-section for conductor connection	Type	fine-wired			
	nominal	0.34 mm <sup>2</sup>			
wire end ferrule	Stripping length	nominal	10 mm		
	Recommended wire-end ferrule	<a href="#">H0.34/12 TK</a>			

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.

**Rated data acc. to IEC**

tested acc. to standard	IEC 60664-1, IEC 61984	Rated current, min. number of poles (Tu=20°C)	17.5 A
Rated current, max. number of poles (Tu=20°C)	17.5 A	Rated current, min. number of poles (Tu=40°C)	17.5 A
Rated current, max. number 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**

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)	11 A

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### Technical data

Rated current (Use group C / CSA)	11 A	Rated current (Use group D / CSA)	11 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 16

#### Rated data acc. to UL 1059

Rated voltage (Use group B / UL 1059)	300 V	Rated voltage (Use group D / UL 1059)	300 V
Rated current (Use group B / UL 1059)	10 A	Rated current (Use group D / UL 1059)	10 A
Wire cross-section, AWG, min.	AWG 26	Wire cross-section, AWG, max.	AWG 16

#### Packing

Packaging	Box	VPE length	144.00 mm
VPE width	65.00 mm	VPE height	25.00 mm

#### Type tests

Test: Misengagement (Non-interchangeability)	Test	visual examination
	Evaluation	passed

#### Important note

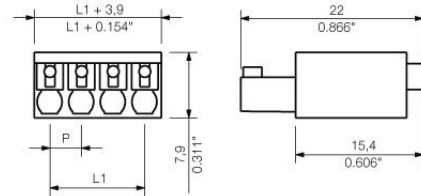
IPC conformity Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

- Notes
- 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.
  - Rated current related to rated cross-section & min. No. of poles.
  - P on drawing = pitch
  - 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
  - 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.
  - Wire end ferrule without plastic collar to DIN 46228/1
  - Wire end ferrule with plastic collar to DIN 46228/4
  - The test point can only be used as potential-pickup point.
  - In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load
  - Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

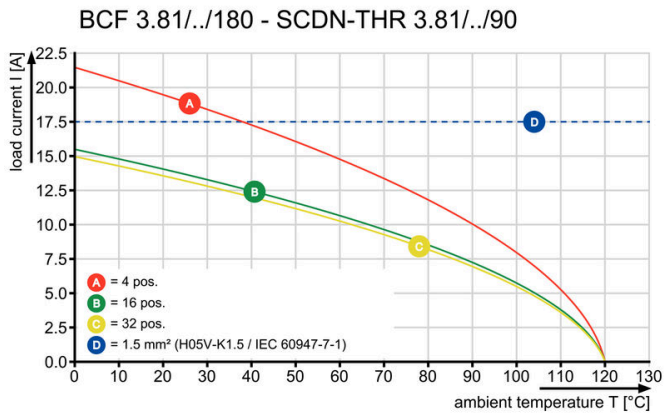
#### Classifications

ETIM 8.0	EC002638	ETIM 9.0	EC002638
ETIM 10.0	EC002638	ECLASS 14.0	27-46-02-02
ECLASS 15.0	27-46-02-02		

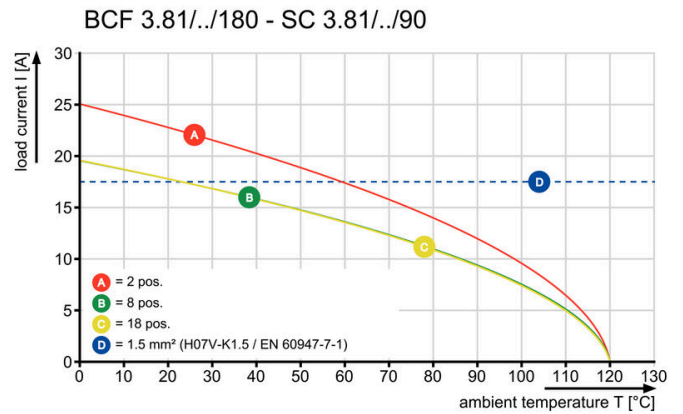
Dimensional drawing



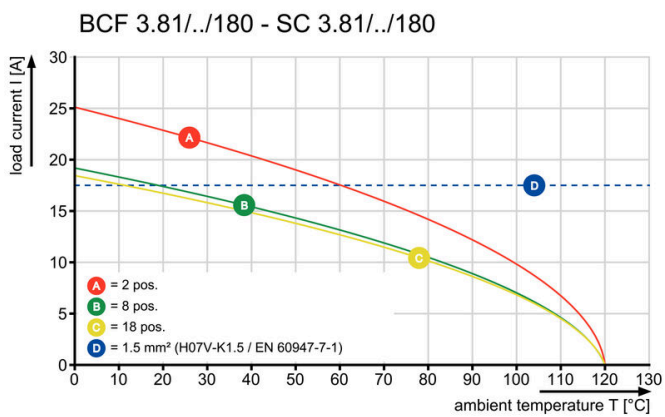
Graph



Graph



Graph



Product benefits



Solid PUSH IN contactSafe and durable