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#### Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 16 D-32758 Detmold Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-2083 www.weidmueller.com



High-temperature-resistant pin header (SC-SMT 180G) in 3.81-mm pitch (0.15 inch)

- Plugging direction is perpendicular to PCB (standing)
- · Closed (G).
- Packed either in box (BX) or on anti-static roll (tape-on-reel, RL)
- Pin length of either 1.5 mm or 3.2 mm
   Weidmüller's 3.81-mm-pitch (0.15 inch) plug-in connectors are compatible with the layouts of standard connectors and offer space for labelling and coding.
- 320 V (IEC) / 300 V (UL)
- 14.9 A (IEC) / 10 A (UL)

Order No.	<u>1863020000</u>
Part designation	SC-SMT 3.81/06/180G 3.2SN BK BX
Version	PCB plug-in connector, male header, 3.81 mm, No. of poles: 6, 180°, Solder pin length: 3.2 mm, tinned, black, Reflow solder connection, Box
GTIN (EAN)	4032248428151
Qty.	50 pc(s).
Packaging	Вох



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# **Technical data**

#### **System parameters**

Fitted to PCB	Reflow solder connection	Outgoing elbow	180°	
Pitch in mm	3.81 mm	Pitch in inch	0.15 inch	
No. of poles	6	Solder pin length	3.2 mm	
Can be coded	Yes	No. of rows	1	
Number of solder pins per pole	1	Diameter of solder eyelet	1.3 mm	
Tolerance of the diameter of the solder		L1 in mm		
eyelet	+ 0,1 mm		19.05 mm	
L1 in inch	0.75 inch	Insulation resistance	10 <sup>3</sup> Ω	
Electric shock protection to DIN VDE 0470	IP 20	Electric shock protection to DIN VDE 57 106 Safe from finger touch		

#### **Material data**

Insulating material	LCP GF	Colour	black	
Insulating material group	Illa	Flammability class UL 94	V-0	
СТІ	≥ 175	Contact material	Copper alloy	
Contact surface		Highest continous operating temperature,		
	tinned	min.	-25 °C	
Highest continous operating temper	erature,	Max. relative humidity during stora	ge	
max.	120 °C		85 %	

#### **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) 13.	3.9 A
Rated current, no. of poles (Tu=40°C), mir	ı. 17 A	Rated current, no. of poles (Tu=40°C), max. 12.	2.4 A
Rated voltage at overvoltage category/ pollution degree III/3	160 V	Rated impulse withstand voltage for overvoltage class/pollution severity III/3 2.5	5 kV
Rated voltage for overvoltage class/pollution severity III/2	on 160 V	Rated impulse withstand voltage for overvoltage class/pollution severity III/2 2.5	5 kV
Rated voltage for overvoltage class/pollution severity II/2	on 320 V	Rated impulse withstand voltage for overvoltage class/pollution severity II/2 2.5	5 kV
Short-time withstand current resistance	3 x 1s with 76 A		

### **CSA** 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	

#### 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	

### **Approvals**

Approvals institutes CSA; CURUS; ROHS	Approvals institutes	CSA; CURUS; ROHS
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### Classifications

ETIM 3.0	EC001284	eClass 5.1	27-26-07-04
eClass 6.0	27-26-07-04		



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# **Technical data**

#### **Notes**

Notes

- · Additional colours on request
- Rated current related to rated cross-section and min. No. of poles.
- 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.

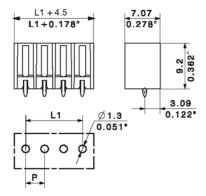


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# Drawings





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# Counterpart

#### BCZ 3.81/180



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.
- 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)

Contorui					
Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
<u>1940770000</u>	BCZ 3.81/06/180 SN OR BX	PCB plug-in connector, female	4032248656066	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1792900000	BCZ 3.81/06/180 SN GN BX	PCB plug-in connector, female	4032248226986	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1792810000	BCZ 3.81/06/180 SN BK BX	PCB plug-in connector, female	4032248226795	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			



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# Counterpart

#### BCZ 3.81/270



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.
- 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)

Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
<u>1940230000</u>	BCZ 3.81/06/270 SN OR BX	PCB plug-in connector, female	4032248656608	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1798970000	BCZ 3.81/06/270 SN BK BX	PCB plug-in connector, female	4032248243754	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1799050000	BCZ 3.81/06/270 SN GN BX	PCB plug-in connector, female	4032248243945	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			



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# Counterpart

#### BCZ 3.81/90



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.
- 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)

Part designation	Version	GTIN (EAN)	Qty.	Packaging
BCZ 3.81/06/90 SN GN BX	PCB plug-in connector, female	4032248243419	50 pc(s).	Box
	plug, 3.81 mm, No. of poles: 6,			
	90°, Clamping yoke connection	1,		
	Clamping range, max.: 1.5			
	mm², Box			
BCZ 3.81/06/90 SN BK BX	PCB plug-in connector, female	4032248243235	50 pc(s).	Вох
	plug, 3.81 mm, No. of poles: 6,			
	90°, Clamping yoke connection	1,		
	Clamping range, max.: 1.5			
	mm², Box			
BCZ 3.81/06/90 SN OR BX	PCB plug-in connector, female	4032248656950	50 pc(s).	Вох
	plug, 3.81 mm, No. of poles: 6,			
	90°, Clamping yoke connection	١,		
	Clamping range, max.: 1.5			
	mm², Box			
	BCZ 3.81/06/90 SN GN BX  BCZ 3.81/06/90 SN BK BX	BCZ 3.81/06/90 SN GN BX  PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection Clamping range, max.: 1.5 mm², Box  BCZ 3.81/06/90 SN BK BX  PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection Clamping range, max.: 1.5 mm², Box  BCZ 3.81/06/90 SN OR BX  PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection Clamping range, max.: 1.5 good poles: 6, 90°, Clamping yoke connection Clamping range, max.: 1.5	BCZ 3.81/06/90 SN GN BX  PCB plug-in connector, female 4032248243419 plug, 3.81 mm, No. of poles: 6, 90°, Clamping range, max.: 1.5 mm², Box  BCZ 3.81/06/90 SN BK BX  PCB plug-in connector, female 4032248243235 plug, 3.81 mm, No. of poles: 6, 90°, Clamping range, max.: 1.5 mm², Box  BCZ 3.81/06/90 SN OR BX  PCB plug-in connector, female 4032248243235 plug, 3.81 mm, No. of poles: 6, 90°, Clamping range, max.: 1.5 mm², Box  BCZ 3.81/06/90 SN OR BX  PCB plug-in connector, female 4032248656950 plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5	BCZ 3.81/06/90 SN GN BX  PCB plug-in connector, female 4032248243419 50 pc(s).  plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5  mm², Box  BCZ 3.81/06/90 SN BK BX  PCB plug-in connector, female 4032248243235 50 pc(s). plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5  mm², Box  BCZ 3.81/06/90 SN OR BX  PCB plug-in connector, female 4032248656950 50 pc(s). plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5



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# Counterpart

#### BCZ 3.81/180F



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.
- 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)

Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
<u>1941050000</u>	BCZ 3.81/06/180F SN OR BX	PCB plug-in connector, female	4032248655793	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1792990000	BCZ 3.81/06/180F SN BK BX	PCB plug-in connector, female	4032248227075	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1793080000	BCZ 3.81/06/180F SN GN BX	PCB plug-in connector, female	4032248227167	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			



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# Counterpart

#### BCZ 3.81/180LR



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.
- 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)

Order No	Don't designation	Varaian	CTINI (EANI)	Ohi	Deckering
Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
1941440000	BCZ 3.81/06/180LR SN OR BX	PCB plug-in connector, female	4032248698363	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1941630000	BCZ 3.81/06/180LR SN GN BX	PCB plug-in connector, female	4032248698554	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1941820000	BCZ 3.81/06/180LR SN BK BX	PCB plug-in connector, female	4032248698745	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			



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# Counterpart

#### BCZ 3.81/90F



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.
- 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)

Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging		
1940020000	BCZ 3.81/06/90F SN OR BX	PCB plug-in connector, female	4032248656806	50 pc(s).	Вох		
		plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5					
		mm², Box					
1798890000	BCZ 3.81/06/90F SN GN BX	PCB plug-in connector, female	4032248243570	50 pc(s).	Вох		
		plug, 3.81 mm, No. of poles: 6	,				
		90°, Clamping yoke connectio	٦,				
		Clamping range, max.: 1.5					
		mm², Box					
1798810000	BCZ 3.81/06/90F SN BK BX	PCB plug-in connector, female	4032248243495	50 pc(s).	Box		
		plug, 3.81 mm, No. of poles: 6					
		90°, Clamping yoke connection,					
		Clamping range, max.: 1.5					
		mm², Box					



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# Counterpart

#### BCZ 3.81/270F



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.
- 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)

Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
1940500000	BCZ 3.81/06/270F SN OR BX	PCB plug-in connector, female	4032248656332	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1799130000	BCZ 3.81/06/270F SN BK BX	PCB plug-in connector, female	4032248244027	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1799210000	BCZ 3.81/06/270F SN GN BX	PCB plug-in connector, female	4032248244102	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		6, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			