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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>1862950000</u>
Part designation	SC-SMT 3.81/04/180G 3.2SN BK BX
Version	PCB plug-in connector, male header, 3.81 mm, No. of poles: 4, 180°, Solder pin length: 3.2 mm, tinned, black, Reflow solder connection, Box
GTIN (EAN)	4032248428137
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	4	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	. 0.4	L1 in mm	44.40
eyelet	+ 0,1 mm		11.43 mm
L1 in inch	0.45 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			
Inculating material	LCP GF	Colour	black
Insulating material group	Illa	Flammability class UL 94	V-0
Insulating material group CTI	ilia ≥ 175	Contact material	Copper alloy
Contact surface	2 17 U		Соррег апоу
Contact Surface	tinned	Highest continous operating temperature, min.	-25 °C
Highest continous operating temperature,		Max. relative humidity during storage	
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) Rated current, no. of poles (Tu=40°C), max.	
Rated current no of poles (Tu=40°C) min	1/ A		12 4 A
	1/ A	Rated impulse withstand voltage for	12.4 A
Rated voltage at overvoltage category/	160 V		2.5 kV
Rated voltage at overvoltage category/ pollution degree III/3 Rated voltage for overvoltage class/pollutior	160 V	Rated impulse withstand voltage for	
Rated current, no. of poles (Tu=40°C), min. Rated voltage at overvoltage category/ pollution degree III/3 Rated voltage for overvoltage class/pollutior severity III/2 Rated voltage for overvoltage class/pollutior severity III/2	160 V 160 V	Rated impulse withstand voltage for overvoltage class/pollution severity III/3 Rated impulse withstand voltage for	2.5 kV
Rated voltage at overvoltage category/ pollution degree III/3 Rated voltage for overvoltage class/pollutior severity III/2 Rated voltage for overvoltage class/pollutior	160 V 160 V	Rated impulse withstand voltage for overvoltage class/pollution severity III/3 Rated impulse withstand voltage for overvoltage class/pollution severity III/2 Rated impulse withstand voltage for	2.5 kV 2.5 kV
Rated voltage at overvoltage category/ pollution degree III/3 Rated voltage for overvoltage class/pollutior severity III/2 Rated voltage for overvoltage class/pollutior severity II/2	160 V 160 V 320 V	Rated impulse withstand voltage for overvoltage class/pollution severity III/3 Rated impulse withstand voltage for overvoltage class/pollution severity III/2 Rated impulse withstand voltage for	2.5 kV 2.5 kV
Rated voltage at overvoltage category/ pollution degree III/3 Rated voltage for overvoltage class/pollutior severity III/2 Rated voltage for overvoltage class/pollutior severity II/2 Short-time withstand current resistance  CSA rating data	160 V 160 V 320 V 3 x 1s with 76 A	Rated impulse withstand voltage for overvoltage class/pollution severity III/3 Rated impulse withstand voltage for overvoltage class/pollution severity III/2 Rated impulse withstand voltage for overvoltage class/pollution severity II/2	2.5 kV 2.5 kV 2.5 kV
Rated voltage at overvoltage category/ pollution degree III/3 Rated voltage for overvoltage class/pollutior severity III/2 Rated voltage for overvoltage class/pollutior severity II/2 Short-time withstand current resistance	160 V 160 V 320 V	Rated impulse withstand voltage for overvoltage class/pollution severity III/3 Rated impulse withstand voltage for overvoltage class/pollution severity III/2 Rated impulse withstand voltage for	2.5 kV 2.5 kV

#### 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

### 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.

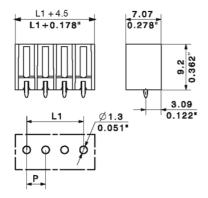


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# Drawings





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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)

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Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
<u>1940750000</u>	BCZ 3.81/04/180 SN OR BX	PCB plug-in connector, female	4032248656080	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1792880000	BCZ 3.81/04/180 SN GN BX	PCB plug-in connector, female	4032248226962	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1792790000	BCZ 3.81/04/180 SN BK BX	PCB plug-in connector, female	4032248226771	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 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)

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Order No.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
<u>1798950000</u>	BCZ 3.81/04/270 SN BK BX	PCB plug-in connector, female	4032248243730	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1940210000	BCZ 3.81/04/270 SN OR BX	PCB plug-in connector, female	4032248656622	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1799030000	BCZ 3.81/04/270 SN GN BX	PCB plug-in connector, female	4032248243921	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 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)

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Part designation	Version	GTIN (EAN)	Qty.	Packaging	
BCZ 3.81/04/90 SN OR BX	PCB plug-in connector, female	4032248653942	50 pc(s).	Box	
	plug, 3.81 mm, No. of poles: 4,				
	90°, Clamping yoke connection	١,			
	Clamping range, max.: 1.5				
	mm², Box				
BCZ 3.81/04/90 SN GN BX	PCB plug-in connector, female	4032248243297	50 pc(s).	Box	
	plug, 3.81 mm, No. of poles: 4,				
	90°, Clamping yoke connection	١,			
	Clamping range, max.: 1.5				
	mm², Box				
BCZ 3.81/04/90 SN BK BX	PCB plug-in connector, female	4032248243211	50 pc(s).	Box	
	plug, 3.81 mm, No. of poles: 4,				
	90°, Clamping yoke connection	١,			
	Clamping range, max.: 1.5				
	mm², Box				
	Part designation BCZ 3.81/04/90 SN OR BX  BCZ 3.81/04/90 SN GN BX	Part designation  PCB plug-in connector, female plug, 3.81 mm, No. of poles: 4, 90°, Clamping yoke connection Clamping range, max.: 1.5 mm², Box  BCZ 3.81/04/90 SN GN BX  PCB plug-in connector, female plug, 3.81 mm, No. of poles: 4, 90°, Clamping yoke connection Clamping range, max.: 1.5 mm², Box  BCZ 3.81/04/90 SN BX  PCB plug-in connector, female plug, 3.81 mm, No. of poles: 4, 90°, Clamping range, max.: 1.5 mm², Box  PCB plug-in connector, female plug, 3.81 mm, No. of poles: 4, 90°, Clamping yoke connection Clamping range, max.: 1.5	Part designation  Version  PCB plug-in connector, female 4032248653942 plug, 3.81 mm, No. of poles: 4, 90°, Clamping range, max.: 1.5 mm², Box  BCZ 3.81/04/90 SN GN BX  PCB plug-in connector, female 4032248243297 plug, 3.81 mm, No. of poles: 4, 90°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box  BCZ 3.81/04/90 SN BK BX  PCB plug-in connector, female 4032248243297 plug, 3.81 mm, No. of poles: 4, 90°, Clamping range, max.: 1.5 mm², Box  PCB plug-in connector, female 4032248243211 plug, 3.81 mm, No. of poles: 4, 90°, Clamping yoke connection, Clamping range, max.: 1.5	Part designation         Version         GTIN (EAN)         Qty.           BCZ 3.81/04/90 SN OR BX         PCB plug-in connector, female 4032248653942 50 pc(s). plug, 3.81 mm, No. of poles: 4, 90°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box         Clamping range, max.: 1.5 mm², Box           BCZ 3.81/04/90 SN GN BX         PCB plug-in connector, female 4032248243297 50 pc(s). plug, 3.81 mm, No. of poles: 4, 90°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box           BCZ 3.81/04/90 SN BK BX         PCB plug-in connector, female 4032248243211 50 pc(s). plug, 3.81 mm, No. of poles: 4, 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
1793060000	BCZ 3.81/04/180F SN GN BX	PCB plug-in connector, female	` ,	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1941030000	BCZ 3.81/04/180F SN OR BX	PCB plug-in connector, female	4032248655816	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1792970000	BCZ 3.81/04/180F SN BK BX	PCB plug-in connector, female	4032248227051	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, 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)	Otv	Packaging
	·		, ,	Qty.	• •
<u>1799190000</u>	BCZ 3.81/04/270F SN GN BX	PCB plug-in connector, female	4032248244089	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
<u>1799110000</u>	BCZ 3.81/04/270F SN BK BX	PCB plug-in connector, female	4032248244003	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 270°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1940480000	BCZ 3.81/04/270F SN OR BX	PCB plug-in connector, female	4032248656356	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 270°, 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
1798790000	BCZ 3.81/04/90F SN BK BX	PCB plug-in connector, female	4032248243471	50 pc(s).	Вох
		plug, 3.81 mm, No. of poles: 4			
		90°, Clamping yoke connection	١,		
		Clamping range, max.: 1.5			
		mm², Box			
1940000000	BCZ 3.81/04/90F SN OR BX	PCB plug-in connector, female	4032248656820	50 pc(s).	Вох
		plug, 3.81 mm, No. of poles: 4,			
		90°, Clamping yoke connection	١,		
		Clamping range, max.: 1.5			
		mm², Box			
1798870000	BCZ 3.81/04/90F SN GN BX	PCB plug-in connector, female	4032248243556	50 pc(s).	Box
		plug, 3.81 mm, No. of poles: 4			
		90°, Clamping yoke connection	١,		
		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.	Part designation	Version	GTIN (EAN)	Qty.	Packaging
<u>1941420000</u>	BCZ 3.81/04/180LR SN OR BX	PCB plug-in connector, female	4032248698349	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
<u>1941800000</u>	BCZ 3.81/04/180LR SN BK BX	PCB plug-in connector, female	4032248698721	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			
1941610000	BCZ 3.81/04/180LR SN GN BX	PCB plug-in connector, female	4032248698530	50 pc(s).	Box
		plug, 3.81 mm, No. of poles:			
		4, 180°, Clamping yoke			
		connection, Clamping range,			
		max.: 1.5 mm², Box			