# Pitch 3.81 mm (0.150 inch)
# SC-SMT 3.81/06/180G 3.2SN BK BX

**Weidmüller Interface GmbH & Co. KG**
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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)

## General ordering data

| | |
|---|---|
| Order No. | 1863020000 |
| 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 | Box |

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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 eyelet | + 0,1 mm | L1 in mm | 19.05 mm |
| L1 in inch | 0.75 inch | Insulation resistance | $10^3$ 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 | IIIa | Flammability class UL 94 | V-0 |
| CTI | ≥ 175 | Contact material | Copper alloy |
| Contact surface | tinned | Highest continous operating temperature, min. | -25 °C |
| Highest continous operating temperature, max. | 120 °C | Max. relative humidity during storage | 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) | 13.9 A |
| Rated current, no. of poles (Tu=40°C), min. | 17 A | Rated current, no. of poles (Tu=40°C), max. | 12.4 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 kV |
| Rated voltage for overvoltage class/pollution severity III/2 | 160 V | Rated impulse withstand voltage for overvoltage class/pollution severity III/2 | 2.5 kV |
| Rated voltage for overvoltage class/pollution severity II/2 | 320 V | Rated impulse withstand voltage for overvoltage class/pollution severity II/2 | 2.5 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 |

### 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

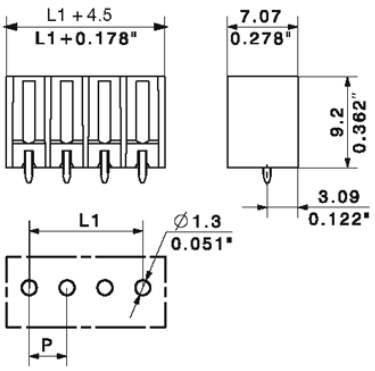
### Notes

| | |
|---|---|
| Notes | • Additional colours on request<br>• Rated current related to rated cross-section and min. No. of poles.<br>• P on drg. = pitch<br>• 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 mm² (IEC) / 28 - 16 AWG (UL)
• 250 V (IEC) / 300 V (UL)
• 17.5 A (IEC) / 10 A (UL)

### General ordering data

| Order No. | Part designation | Version | GTIN (EAN) | Qty. | Packaging |
|---|---|---|---|---|---|
| 1940770000 | BCZ 3.81/06/180 SN OR BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248656066 | 50 pc(s). | Box |
| 1792900000 | BCZ 3.81/06/180 SN GN BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248226986 | 50 pc(s). | Box |
| 1792810000 | BCZ 3.81/06/180 SN BK BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248226795 | 50 pc(s). | 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 mm² (IEC) / 28 - 16 AWG (UL)
• 250 V (IEC) / 300 V (UL)
• 17.5 A (IEC) / 10 A (UL)

### General ordering data

| Order No. | Part designation | Version | GTIN (EAN) | Qty. | Packaging |
|---|---|---|---|---|---|
| 1940230000 | BCZ 3.81/06/270 SN OR BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 270°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248656608 | 50 pc(s). | Box |
| 1798970000 | BCZ 3.81/06/270 SN BK BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 270°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248243754 | 50 pc(s). | Box |
| 1799050000 | BCZ 3.81/06/270 SN GN BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 270°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248243945 | 50 pc(s). | 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 mm² (IEC) / 28 - 16 AWG (UL)
• 250 V (IEC) / 300 V (UL)
• 17.5 A (IEC) / 10 A (UL)

### General ordering data

| Order No. | Part designation | Version | GTIN (EAN) | Qty. | Packaging |
|---|---|---|---|---|---|
| 1798730000 | 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 | 4032248243419 | 50 pc(s). | Box |
| 1798590000 | 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 | 4032248243235 | 50 pc(s). | Box |
| 1939870000 | 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 mm², Box | 4032248656950 | 50 pc(s). | Box |

# Pitch 3.81 mm (0.150 inch)
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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 mm² (IEC) / 28 - 16 AWG (UL)
• 250 V (IEC) / 300 V (UL)
• 17.5 A (IEC) / 10 A (UL)

### General ordering data

| Order No. | Part designation | Version | GTIN (EAN) | Qty. | Packaging |
|---|---|---|---|---|---|
| 1941050000 | BCZ 3.81/06/180F SN OR BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248655793 | 50 pc(s). | Box |
| 1792990000 | BCZ 3.81/06/180F SN BK BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248227075 | 50 pc(s). | Box |
| 1793080000 | BCZ 3.81/06/180F SN GN BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248227167 | 50 pc(s). | 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 mm² (IEC) / 28 - 16 AWG (UL)
• 250 V (IEC) / 300 V (UL)
• 17.5 A (IEC) / 10 A (UL)

### General ordering data

| Order No. | Part designation | Version | GTIN (EAN) | Qty. | Packaging |
|---|---|---|---|---|---|
| 1941440000 | BCZ 3.81/06/180LR SN OR BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248698363 | 50 pc(s). | Box |
| 1941630000 | BCZ 3.81/06/180LR SN GN BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248698554 | 50 pc(s). | Box |
| 1941820000 | BCZ 3.81/06/180LR SN BK BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 180°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248698745 | 50 pc(s). | Box |

# Datasheet

## Pitch 3.81 mm (0.150 inch)
## SC-SMT 3.81/06/180G 3.2SN BK BX

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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:
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• 0.20 - 1.5 mm² (IEC) / 28 - 16 AWG (UL)
• 250 V (IEC) / 300 V (UL)
• 17.5 A (IEC) / 10 A (UL)

### General ordering data

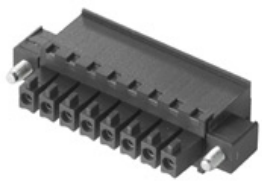
| Order No. | Part designation | Version | GTIN (EAN) | Qty. | Packaging |
|---|---|---|---|---|---|
| 1940020000 | BCZ 3.81/06/90F SN OR BX | PCB plug-in connector, female plug, 3.81 mm, No. of poles: 6, 90°, Clamping yoke connection, Clamping range, max.: 1.5 mm², Box | 4032248656806 | 50 pc(s). | Box |
| 1798890000 | BCZ 3.81/06/90F 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 | 4032248243570 | 50 pc(s). | Box |
| 1798810000 | BCZ 3.81/06/90F 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 | 4032248243495 | 50 pc(s). | 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:
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• 0.20 - 1.5 mm² (IEC) / 28 - 16 AWG (UL)
• 250 V (IEC) / 300 V (UL)
• 17.5 A (IEC) / 10 A (UL)

### General ordering data

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