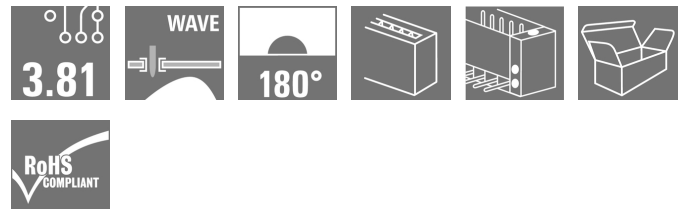


**OMNIMATE Signal - series BC/SC 3.81  
SC 3.81/09/180F 3.2SN OR BX**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com



The SC pin header has a perpendicular (standing) plugging direction in relation to the PCB. It is available in closed (G) and screw flange (F) versions. 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.

**General ordering data**

|              |   |
|--------------|---|
| Type         | SC 3.81/09/180F 3.2SN OR BX   |
| Order No.    | <a href="#">1943250000</a>  |
| Version      | PCB plug-in connector, male header, Flange, THT solder connection, 3.81 mm, No. of poles: 9, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box |
| GTIN (EAN)   | 4032248654345   |
| Qty.         | 50 pc(s).   |
| Product data | IEC: 320 V / 17.5 A<br>UL: 300 V / 10 A   |
| Packaging    | Box   |

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**Technical data**
**Dimensions and weights**

Net weight 3.42 g

**System specifications**

| Product family                             | OMNIMATE Signal - series BC/SC 3.81 | Type of connection                           | Board connection       |
|--|-------------------------------------|--|------------------------|
| Mounting onto the PCB                      | THT solder connection               | Pitch in mm (P)                              | 3.81 mm                |
| Pitch in inches (P)                        | 0.15 inch                           | Outgoing elbow                               | 180°                   |
| No. of poles                               | 9                                   | Number of solder pins per pole               | 1                      |
| Solder pin length (l)                      | 3.2 mm                              | Solder pin length tolerance                  | 0 / -0,02 mm           |
| Tolerance of solder pin position           | ± 0.1 mm                            | Solder pin dimensions                        | d = 1.0 mm, Octagonal  |
| Solder pin dimensions = d tolerance        | 0 / -0,03 mm                        | Solder eyelet hole diameter (D)              | 1.2 mm                 |
| Solder eyelet hole diameter tolerance (D)  | + 0,1 mm                            | L1 in mm                                     | 30.48 mm               |
| L1 in inches                               | 1.2 inch                            | Number of rows                               | 1                      |
| Pin series quantity                        | 1                                   | Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20                               | Volume resistance                            | 6.00 mΩ                |
| Can be coded                               | Yes                                 | Plugging cycles                              | 25                     |
| Packaging                                  | Box                                 |  |                        |

**Material data**

| Insulating material                   | PA GF    | Colour                                | Orange              |
|---------------------------------------|----------|---------------------------------------|---------------------|
| Colour chart (similar)                | RAL 2000 | Insulating material group             | II                  |
| CTI                                   | ≥ 550    | Insulation resistance                 | ≥ 10 <sup>8</sup> Ω |
| UL 94 flammability rating             | V-0      | Contact material                      | Copper alloy        |
| Contact surface                       | tinned   | Storage temperature, min.             | -25 °C              |
| Storage temperature, max.             | 55 °C    | Max. relative humidity during storage | 80 %                |
| Operating temperature, min.           | -50 °C   | Operating temperature, max.           | 120 °C              |
| Temperature range, installation, min. | -25 °C   | Temperature range, installation, max. | 120 °C              |

**Rated data acc. to IEC**

|   |                        |   |                  |
|---|------------------------|---|------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. no. of poles (Tu=20°C)                            | 17.5 A           |
| Rated current, max. no. of poles (Tu=20°C)                                | 17.1 A                 | Rated current, min. no. of poles (Tu=40°C)                            | 17.5 A           |
| Rated current, max. no. of poles (Tu=40°C)                                | 17.1 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) | 300 V | Rated current (use group B) | 8 A |
|-----------------------------|-------|-----------------------------|-----|

**Data sheet**

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**Technical data**

**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

|                              |  |                             |       |
|------------------------------|--|-----------------------------|-------|
| Rated voltage (use group B)  | 300 V  | Rated voltage (use group D) | 300 V |
| Rated current (use group B)  | 10 A   | Rated current (use group D) | 10 A  |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. |                             |       |

**Classifications**

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 4.0   | EC002637    | ETIM 5.0   | EC002637    |
| ETIM 6.0   | EC002637    | UNSPSC     | 30-21-18-11 |
| eClass 5.1 | 27-26-11-02 | eClass 6.2 | 27-26-07-04 |
| eClass 7.1 | 27-44-04-02 | eClass 8.1 | 27-44-04-02 |
| eClass 9.0 | 27-44-04-02 | eClass 9.1 | 27-44-04-02 |

**Notes**

- Notes
- Additional colours on request
  - For additional mechanical support for male connectors with screw flange (...F), we recommend an additional cable gland with fastening screws (sheet metal screw ISO 1481-ST 2.2x4.5 C or ISO 7049-ST 2.2x4.5 C – see Accessories). Cable gland only permitted before soldering.
  - Rated current related to rated cross-section & min. No. of poles.
  - 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.
  - P on drawing = pitch

IPC conformity The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

**Approvals**

Approvals



ROHS Conform

**Data sheet****OMNIMATE Signal - series BC/SC 3.81  
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**Technical data****Downloads**

Approval/Certificate/Document of  
Conformity

[Declaration of the Manufacturer](#)

Brochure/Catalogue

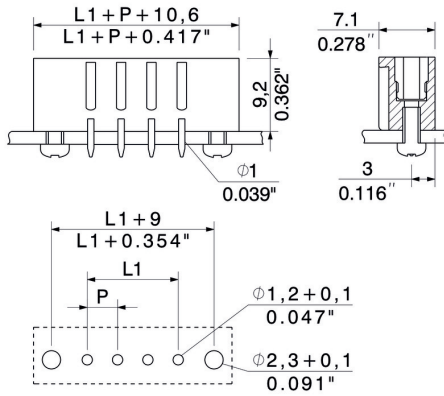
[FL DRIVES EN](#)  
[MB DEVICE MANUF. EN](#)  
[FL DRIVES DE](#)  
[CAT 2 PORTFOLIOGUIDE EN](#)  
[FL BUILDING SAFETY EN](#)  
[FL APPL LED LIGHTING EN](#)  
[FL INDUSTR.CONTROLS EN](#)  
[FL MACHINE SAFETY EN](#)  
[FL HEATING ELECTR EN](#)  
[FL APPL INVERTER EN](#)  
[FL BASE STATION EN](#)  
[FL ELEVATOR EN](#)  
[FL POWER SUPPLY EN](#)  
[FL 72H SAMPLE SER EN](#)  
[PO OMNIMATE EN](#)

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**Drawings**

**Dimensional drawing**



## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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### Single Wave:



### Double Wave:



### Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:

- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.