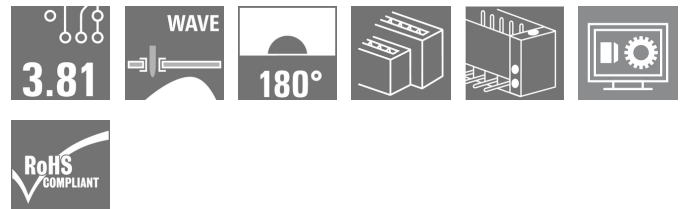


## OMNIMATE Signal - series BC/SC 3.81 SCD 3.81/16/180F 3.2SN OR BX

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 1429-0  
Fax: +49 5231 14292083  
www.weidmueller.com



Two-tier SCD pin header for wave soldering.

- It allows you to use two interfaces on only one surface and with only one step in the work flow.
- Outlet direction: 180° (standing).
- Connections at the same level and with access that is flush over the front board.
- Space for labelling and coding
- Packed in cardboard box.

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         | SCD 3.81/16/180F 3.2SN OR BX                                                                                                                           |
| Order No.    | <a href="#">1030510000</a>                                                                                                                             |
| Version      | PCB plug-in connector, male header, Flange, THT solder connection, 3.81 mm, No. of poles: 16, 180°, Solder pin length (l): 3.2 mm, tinned, Orange, Box |
| GTIN (EAN)   | 4032248759644                                                                                                                                          |
| 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 | 4.48 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                               | 16                                  | Number of solder pins per pole               | 1                      |
| Solder pin length (l)                      | 3.2 mm                              | Solder pin length tolerance                  | +0,02 / -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                                     | 26.67 mm               |
| L1 in inches                               | 1.05 inch                           | Number of rows                               | 2                      |
| Pin series quantity                        | 2                                   | 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 (Ta = 20°C)                          | 17.5 A           |
| Rated current, min. no. of poles (Ta = 40°C)                              | 17 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) | 11 A |
|-----------------------------|-------|-----------------------------|------|

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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    | 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
- 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
- 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.
- 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 after soldering.

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

### OMNIMATE Signal - series BC/SC 3.81 SCD 3.81/16/180F 3.2SN OR BX

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## Technical data

### Downloads

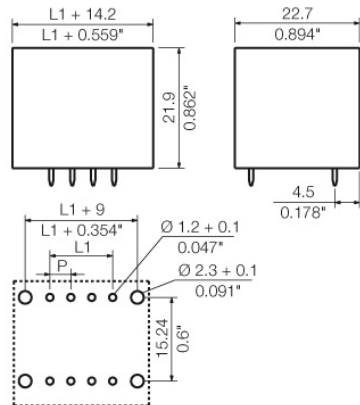
|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of the Manufacturer</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Brochure/Catalogue                          | <a href="#">FL DRIVES EN</a><br><a href="#">MB DEVICE MANUF. EN</a><br><a href="#">FL DRIVES DE</a><br><a href="#">CAT 2 PORTFOLIOGUIDE EN</a><br><a href="#">FL BUILDING SAFETY EN</a><br><a href="#">FL APPL LED LIGHTING EN</a><br><a href="#">FL INDUSTR.CONTROLS EN</a><br><a href="#">FL MACHINE SAFETY EN</a><br><a href="#">FL HEATING ELECTR EN</a><br><a href="#">FL APPL INVERTER EN</a><br><a href="#">FL BASE STATION EN</a><br><a href="#">FL ELEVATOR EN</a><br><a href="#">FL POWER SUPPLY EN</a><br><a href="#">FL 72H SAMPLE SER EN</a><br><a href="#">PO OMNIMATE EN</a> |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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# Drawings

## Dimensional drawing



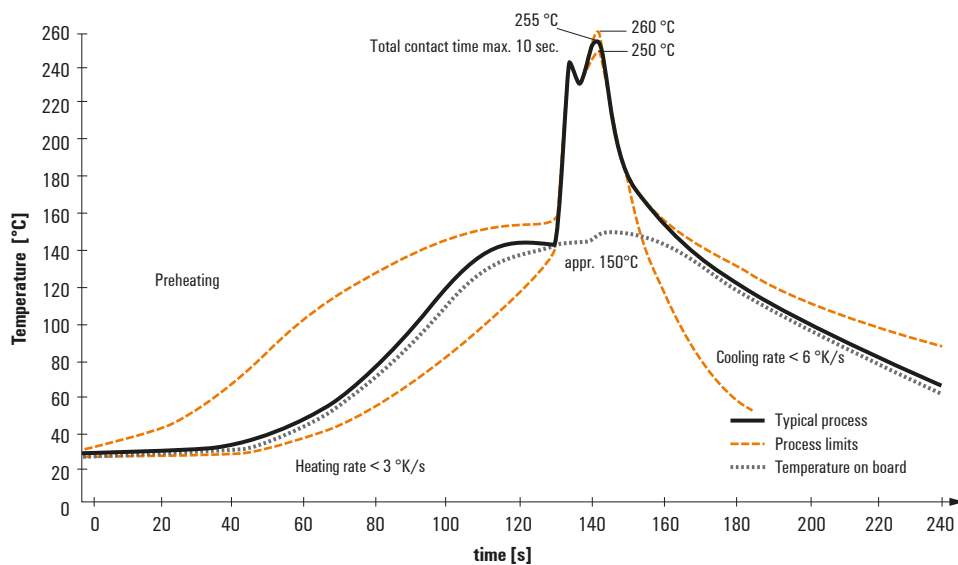
## Recommended wave soldering profiles

**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.

We reserve the right to make technical changes.