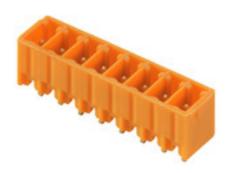


Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26 D-32758 Detmold Germany

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Product image



















similar to Illustration

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

| Version | PCB plug-in connector, male header, closed side, THT solder connection, 3.81 mm, Number of poles: 2, 180°, Solder pin length (I): 3.2 mm, tinned, Pale green, Box |
|--------------|--|
| Order No. | <u>1793610000</u> |
| Туре | SC 3.81/02/180G 3.2SN GN BX |
| GTIN (EAN) | 4032248230730 |
| Qty. | 198 pc(s). |
| Product data | IEC: 320 V / 17.5 A UL: 300 V / 10 A |
| Packaging | Вох |

Creation date January 14, 2022 1:17:14 AM CET



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Technical data

Dimensions and weights

| Depth | 7.1 mm | Depth (inches) | 0.28 inch |
|--------------------------|------------|-----------------|------------|
| Height | 12.4 mm | Height (inches) | 0.488 inch |
| Height of lowest version | 9.2 mm | Width | 9.02 mm |
| Width (inches) | 0.355 inch | Net weight | 0.182 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° |
| Number of poles | 2 | Number of solder pins per pole | 1 |
| Solder pin length (I) | 3.2 mm | Solder pin length tolerance | 0 / -0.2 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 (I | D)+ 0,1 mm |
| L1 in mm | 3.81 mm | L1 in inches | 0.15 inch |
| Number of rows | 1 | Pin series quantity | 1 |
| Touch-safe protection acc. to DIN VDE | | Touch-safe protection acc. to DIN VDE | |
| 57 106 | Safe from finger touch | 0470 | IP 20 |
| Volume resistance | ≤5 mΩ | Can be coded | Yes |
| Plugging force/pole, max. | 7 N | Pulling force/pole, max. | 5 N |

Material data

| Insulating material | PA GF | Colour | Pale green |
|---------------------------------------|--------------|---------------------------------------|------------|
| Colour chart (similar) | RAL 6021 | Insulating material group | II |
| Comparative Tracking Index (CTI) | ≥ 550 | UL 94 flammability rating | V-0 |
| Contact material | Copper alloy | Contact surface | tinned |
| Storage temperature, min. | -40 °C | Storage temperature, max. | 70 °C |
| 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. number of poles (Tu=20°C) | 17.5 A |
|---|------------------------|---|------------------|
| Rated current, max. number of poles (Tu=20°C) | 17.1 A | Rated current, min. number of poles (Tu=40°C) | 17.5 A |
| Rated current, max. number 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 / CSA) | 300 V | Rated current (Use group B / CSA) | 8 A |
|-----------------------------------|-------|-----------------------------------|-----|



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Technical data

Rated data acc. to UL 1059

| Institute (cURus) | | Certificate No. (cURus) | |
|---------------------------------------|--|---------------------------------------|--------|
| | U # 100 US | | E60693 |
| Rated voltage (Use group B / UL 1059) | 300 V | Rated voltage (Use group D / UL 1059) | 300 V |
| Rated current (Use group B / UL 1059) | 10 A | Rated current (Use group D / UL 1059) | 10 A |
| Reference to approval values | Specifications are maximum values, details - see approval certificate. | | |
| Packing | | | |
| Packaging | Вох | VPE length | 25 mm |
| VPE width | 60 mm | VPE height | 90 mm |

| ETIM 6.0 | EC002637 | ETIM 7.0 | EC002637 |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002637 | ECLASS 9.0 | 27-44-04-02 |
| ECLASS 9.1 | 27-44-04-02 | ECLASS 10.0 | 27-44-04-02 |
| ECLASS 11.0 | 27-46-02-01 | | |

Important note

| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request. |
|----------------|--|
| Notes | Additional colours on request |
| | • 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. |
| | Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months |

Approvals

| c Salus E | i | |
|-----------|---|--|
|-----------|---|--|

| ROHS | Conform |
|-----------------------|---------|
| UL File Number Search | E60693 |



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Technical data

Downloads

| Approval/Certificate/Document of | CB Certificate |
|----------------------------------|---|
| Conformity | CB Testreport |
| | Declaration of the Manufacturer |
| Engineering Data | WSCAD |
| Product Change Notification | Change of packaging - DE |
| | Change of packaging - EN |
| Catalogues | Catalogues in PDF-format |
| Brochures | FL DRIVES EN |
| | MB DEVICE MANUF. EN |
| | FL DRIVES DE |
| | <u>FL BUILDING SAFETY EN</u> |
| | 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 |
| | FO OWINIWATE LIN |



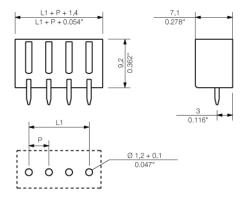
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Drawings

Dimensional drawing





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Accessories

Coding elements



Only connects what is supposed to be connected: the right connection at the right place.

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

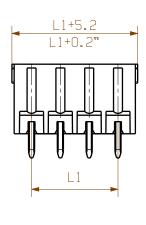
The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery. Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

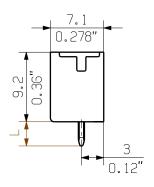
General ordering data

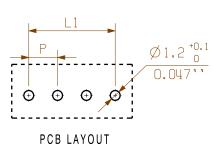
| Туре | SC-SMT 3.81 KO GY BX | Version | Product data | Packaging |
|------------|----------------------|--|--------------|-----------|
| Order No. | <u>1968900000</u> | PCB plug-in connector, Accessories, Coding element, grey, Number | of | Box |
| GTIN (EAN) | 4032248772865 | poles: 6 | | |
| Qty. | 100 pc(s). | | | |

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SC 3.81/.../180G 3.2...







For the mounting of PCBs, it should be noted rated data given in the catalogue relates only to connection elements. The neccessary creepag clearance paths must be observed in connectithe respective applicant in accordance to VDE The current-carrying capacity and pitch tolerar be determined according to DIN IEC 326 part.

Weidmüller connectors are tested to the DIN v standard, and are valid for its field of application Provided that the connectors are used to the inpurpose, all requirements with respect to the occurring of electrical, mechanical, thermic and corrosive stress will be satisfied.



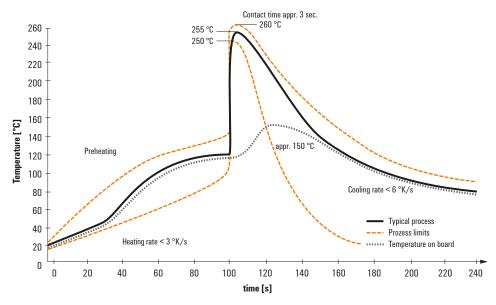
Recommended wave solderding profiles

Weidmüller Interface GmbH & Co. KG

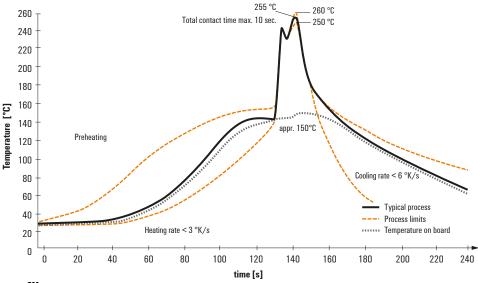
Klingenbergstraße 16 D-32758 Detmold Germany

Fon: +49 5231 14-0 Fax: +49 5231 14-292083 www.weidmueller.com

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.

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252 MVE-253 MVE-273 MVEB-153 1700096 1705142 1712417 1713020 1713088 1745195 1760594 1776118-2 1790852 1-796689-8

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