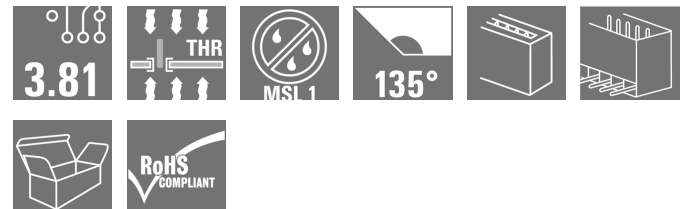


OMNIMATE Signal - series BC/SC 3.81 SC-SMT 3.81/02/135G 3.2SN BK BX

Weidmüller Interface GmbH & Co. KG
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Product image



similar to Illustration

The high-temperature-resistant SC-SMT pin header with 135° wire outlet direction: the 135° angle exists between the plugging direction and the solder pin. The wire outlet direction is then diagonal or 45° to the PCB.

- More freedom when designing components and devices.
- Easy access and a high component density when multiple interfaces are arranged in parallel within a single plugging area
- The housing design is application-friendly because of the additional optional wire outlet direction.
- Available as closed (G) and with solder flange (LF).
- 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.

General ordering data

| | |
|--------------|--|
| Type | SC-SMT 3.81/02/135G 3.2SN BK BX |
| Order No. | 1977200000 |
| Version | PCB plug-in connector, male header, closed side, THT/THR solder connection, 3.81 mm, Number of poles: 2, 135°, Solder pin length (l): 3.2 mm, tinned, black, Box |
| GTIN (EAN) | 4032248685219 |
| Qty. | 50 pc(s). |
| Product data | IEC: 320 V / 17.5 A UL: 300 V / 11 A |
| Packaging | Box |

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Application notes

The solder connection is causing concern among whole global industries and international associations - just a brief outline of the issue would extend far beyond the scope of this summary. Weidmüller is a specialist in electrical connection systems and is always has its finger on the pulse to keep up to date with global development of the latest circuit board technology, manufacturing processes, electrical, chemical and thermal material characteristics and influential factors.

Automatic assembly requirements, the subtleties surrounding paste pressure, temperature profiles in the reflow oven or influential factors on measured results from different quality testing systems are just as important to us as skills such as defining problems in electronics development and finding possible solutions, EMS service providers and the long-term behaviour of a soldered connection under different conditions in daily operation all over the world.

If you should have any questions relating to our products and their behaviour in the soldering process, we will provide you with help and advice on historical challenges such as RoHS legislation and conversion to lead-free operation or on subjects such as whiskers, moisture level, REACH, etc.

The Weidmüller portfolio includes components for through-hole technology (THT) and through-hole reflow procedures (THR) - supplied in a box, tube tray or belt, depending on the process.

Pin geometry, surface systems, pin lengths, constructive parameters and the thermal properties of insulating material are always at the cutting edge of technology. Weidmüller soldering components represent outstanding quality and reliable function. Our own laboratory, electroplating shop and electronics manufacturing plant increase our know-how on a daily basis daily and assure the constant high quality of our products, data and specifications.

The objective for Portfolio and Service and the benefits to you: finding the best solution for every procedure, layout and circuit board - including all the necessary product data and other engineering information for assisting the design-in phase.

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Technical data

Dimensions and weights

| | | | |
|--------------------------|------------|-----------------|------------|
| Width | 9.01 mm | Width (inches) | 0.355 inch |
| Height | 14.2 mm | Height (inches) | 0.559 inch |
| Height of lowest version | 11 mm | Depth | 13.1 mm |
| Depth (inches) | 0.516 inch | Net weight | 1 g |

System specifications

| | | | |
|---|-------------------------------------|--|------------------------|
| Product family | OMNIMATE Signal - series BC/SC 3.81 | Type of connection | Board connection |
| Mounting onto the PCB | THT/THR solder connection | Pitch in mm (P) | 3.81 mm |
| Pitch in inches (P) | 0.15 inch | Outgoing elbow | 135° |
| Number of poles | 2 | 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) | 1.3 mm |
| Solder eyelet hole diameter tolerance (D)+ 0.1 mm | | Outside diameter of solder pad | 2.1 mm |
| Template aperture diameter | 1.9 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 57 106 | Safe from finger touch |
| Touch-safe protection acc. to DIN VDE 0470 | IP 20 | Volume resistance | ≤ 5mΩ |
| Can be coded | Yes | Plugging cycles | 25 |

Material data

| | | | |
|---------------------------------------|--------------|---------------------------------------|---------------------|
| Insulating material | LCP GF | Colour | black |
| Colour chart (similar) | RAL 9011 | Insulating material group | IIIa |
| Comparative Tracking Index (CTI) | ≥ 175 | Insulation strength | ≥ 10 ⁸ Ω |
| Moisture Level (MSL) | 1 | UL 94 flammability rating | V-0 |
| GWIT | 930 °C | GWFI | 960 °C |
| 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) | 17.5 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) | 11 A |
|-----------------------------------|-------|-----------------------------------|------|