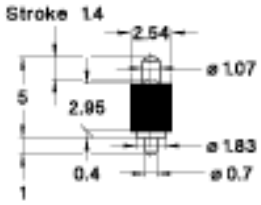
preci-dip

# SPRING-LOADED CONNECTORS & PAD CONNECTORS

**SERIES 811**

**811-SS-NNN-30-022101**
Single Row
2.54 mm, Surface mount perpendicular with positioning pins

Basic modular connectors with spring-loaded contacts (SLC), surface mount with positioning pins. Contacts with hollow piston design for low profile.



## TECHNICAL SPECS.:

| | |
|---|---|
| **Flammability** | UL 94V-O |
| **Piston and barrel** | Brass CuZn36Pb3 (C36000) |
| **Spring** | Stainless steel X12 CrNi177, DIN 17224 |
| **Max. stroke** | 1.4 mm (1.15 mm for 811-...-021101) |
| **Forces initial** | 0.25 N |
| **Forces initial at 1/2 stroke** | 0.6 N |
| **Mechanical life** | 100'000 cycles |
| **Max. operating current** | 3.5 A |
| **Coplanarity SMD terminations** | Max. 0.1 mm (measured on 25 mm long connectors) |
| **Contact resistance** | 15 m (static measurement, halfway position) |
| **Plating** | Gold 0.5 µm barrel and piston |

## ORDERING INFORMATION:

| Initial height A (mm) | Height plastic body B (mm) | XXX code |
|---|---|---|
| 4.5 | 2.95 | 021 |
| 5 | 2.95 | 022 |
| 5.5 | 2.95 | 023 |
| 6 | 4 | 024 |
| 6.5 | 4 | 025 |
| 7 | 4 | 026 |
| 7.5 | 4 | 027 |

NNN number of poles. Replace NNN with the requested number of poles, e.g. 813-SS-NNN-30-021101, for a double row version with 16 pins becomes 813-SS-016-30-021101.

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# TECHNICAL ASSISTANCE

## GENERAL SPECIFICATIONS:

The values listed below are general specs applying for PRECI-DIP spring-loaded connectors. Please see individual catalog page for additional and product specific technical data.

| | |
|---|---|
| Operating temperature range | -55 ... +125 °C |
| Climatic category (IEC) | 55/85/21 |
| Operating humidity range | annual mean 75 % |
| Max working voltage | 100 VRMS/150 VDC (2.54 mm grid) |

PRECI-DIP products are recognized by Underwriters Laboratories Inc. and listed under "Connectors for Use in Data, Signal, Control and Power Applications", File Nr. E174442.

## ELECTRICAL CHARACTERISTICS:

| | |
|---|---|
| Insulation resistance between any two adjacent contacts | Min. 10'000 M at 500 V AC |
| Capacitance between any two adjacent contacts | Max. 1 pF |

## ENVIRONMENTAL CHARACTERISTICS:

The sockets withstand the following environmental tests without mechanical and electrical defects:

- Dry heat steady state IEC 60512-11-9.11i / 60068-2-2.Bb: 125 °C, 16h
- Damp heat cyclic IEC 60512-11-12.11m / 60068-2-30.Db: 25/55 °C, 90 – 100 %rH, 1 cycle of 24 h
- Cold steady state IEC 60512-11-10.11j / 60068-2-1.A: -55 °C, 2 h
- Thermal shock IEC 60512-11-4.11d / 60068-2-14.Na: -55/125 °C, 5 cycles 30 min
- Sinusoidal vibrations IEC 60512-6-4.6d / 60068-2-6.Fc: 10 to 500 Hz, 10 g, 1 octave/min, 10 cycles for each axis
- Shock IEC 60512-6-3.6c / 60068-2-27.Ea: 50 g, 11 ms, 3 shocks in three axis

During the above two tests no contact interruption >50 ns does appear.

- Solderability J-STD-002A, Test A, 245°C, 5 s solder alloy SnAg3.8Cu0.7
- Resistance to soldering heat J-STD-0020C, 260°C, 20 s
- Moisture sensitivity J-STD-020C level 1
- Resistance to corrosion :
  1) Salt spray test IEC 60068-2-11.Ka: 48 h
  2) Sulfur dioxide (SO2) test IEC 60068-2-42 Kc: 96 h at 25 ppm SO2, 25 °C, 75 %rH
  3) Hydrogen sulfide (H2S) test IEC 60068-2-43 Kd: 96 h at 12 ppm H2S, 25 °C, 75 %rH