



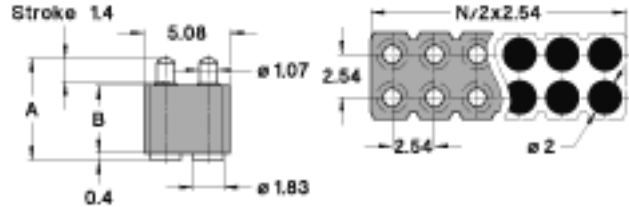
preci-dip

# SPRING-LOADED CONNECTORS & PAD CONNECTORS

**SERIES**  
**813**

**813-S1-NNN-30-XXX101**  
Double Row  
2.54 mm, Surface mount perpendicular

Low resistance modular connectors with spring-loaded contacts (SLC), surface mount. Contacts with improved, shaped piston design.



## TECHNICAL SPECS.:

<b>Flammability</b>	UL 94V-O
<b>Piston and barrel</b>	Brass CuZn36Pb3 (C36000)
<b>Spring</b>	Music wire DIN 17223, gold plated
<b>Max. stroke</b>	1.4 mm
<b>Forces initial</b>	0.25 N
<b>Forces initial at 1/2 stroke</b>	0.85 N
<b>Mechanical life</b>	50'000 cycles
<b>Max. operating current</b>	3.5 A
<b>Contact resistance</b>	10 m (static measurement, halfway position)
<b>Coplanarity SMD terminations</b>	Max. 0.1 mm (measured on 25 mm long connectors)
<b>Plating</b>	Barrel: 0.25 µm gold / Piston: 0.5 µm gold

## ORDERING INFORMATION:

Initial height A (mm)	Height plastic body B (mm)	XXX code
6	4	014
6.5	4	015
7	4	016
7.5	4	017

NNN number of poles. Replace NNN with the requested number of poles, e.g. 813-S1-NNN-30-014101 for a double row version with 16 pins becomes 813-S1-016-30-014101.

# 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 (SO<sub>2</sub>) test IEC 60068-2-42 Kc: 96 h at 25 ppm SO<sub>2</sub>, 25 °C, 75 %rH
  - 3) Hydrogen sulfide (H<sub>2</sub>S) test IEC 60068-2-43 Kd: 96 h at 12 ppm H<sub>2</sub>S, 25 °C, 75 %rH

## PACKAGING:

Standard connector packaging is card box.

SMD mount connectors available on request with Tape & Reel packaging acc. to EIA Standard 481.