



precidip

## SPRING-LOADED CONNECTORS & PAD CONNECTORS

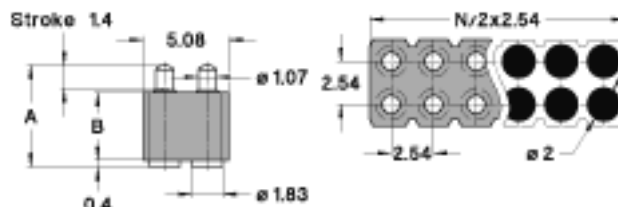
### SERIES 813

#### 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.