PCB CONNECTORS

SERIES 801

801-PP-NNN-10-001101
Single row
2.54/5.08 mm, Straight solder tail, Mating pin Ø 0.76 mm

Socket connectors, solder tail

TECHNICAL SPECS.:

Insulator: Black glass filled polyester PCT-GF30-FR
Flammability: UL 94V-O
Sleeve: Brass CuZn36Pb3 (C36000)
Contact: Clip (6 finger): Beryllium copper (C17200)
Mating pin Ø: 0.70 to 0.90 mm, 0.635 mm square
Insertion force: 1.2 N typ.
Withdrawal force: 0.6 N typ. (polished steel gauge Ø 0.76 mm)
Mechanical life: Min. 500 cycles
Rated current: 3 A
Contact resistance: Max. 10 m
Dielectric strength: Min. 1000 V RMS

ORDERING INFORMATION:

PP Plating code | Sleeve | Clip
---|---|---
87 | Tin | Gold flash
83 | Tin | Gold 0.75 µm

NNN number of poles. Replace NNN with the requested number of poles, e.g. 801-87-NNN-10-143101 for a single row version with 8 pins becomes 801-87-008-10-143101
TECHNICAL ASSISTANCE

GENERAL SPECIFICATIONS:
The values listed below are general specs applying for PRECI-DIP socket and pin connectors. Please see individual catalog page for additional and product specific technical data.

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

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

MECHANICAL CHARACTERISTICS:

- **Clip retention**: Min. 40 N (no displacement under axial force applied)
- **Contact (sleeve / clip) retention**: Min. 3.3 N acc. to MIL-DTL-83734, pt 4.6.4.2

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

Air and creepage distances between any two adjacent contacts:

<table>
<thead>
<tr>
<th>SERIES</th>
<th>3xx/4xx/7xx</th>
<th>80x</th>
<th>83x</th>
<th>85x</th>
<th>86x</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td>0.7</td>
<td>0.85 / 0.7</td>
<td>0.5</td>
<td>0.4 / 0.5</td>
<td>0.5</td>
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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**
- **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**
- **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**

SOLDERLESS COMPLIANT PRESS-FIT CHARACTERISTICS:

PRESS-FIT CHARACTERISTICS MEASURED ACC. TO IEC 60352-5

- **Press-in force**: 90 N max. (at min. hole dia.) / 65 N typ.
- **Push-out force**: 30 N min. (at max. hole dia.) / 50 N typ.
- **Push-out 3rd cycle**: 20 N min. (at max. hole dia.)

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PRECI-DIP SA
Rue Saint-Henri 11
P.P.Box 834
CH-2800 Delémont / Switzerland
PHONE +41 (0)32 421 04 00
FAX +41 (0)32 421 04 01
E-MAIL sales@precidip.com
www.precidip.com
PCB HOLE DIMENSIONS

- 2 mm grid: Finished hole Ø: 0.7 + 0.09/-0.06 mm | Drilled hole Ø: 0.8 ± 0.02 mm
- 2.54 mm grid: Finished hole Ø: 1 + 0.09/-0.06 mm | Drilled hole Ø: 1.15 ± 0.02 mm

PCB HOLE PLATING

- PCB surface finish: Hole plating
- Tin: 5-15 µm tin over min. 25 µm copper
- Copper: min. 25 µm copper
- Gold over nickel: 0.05-0.2 µm gold over 2.5-5 µm nickel over min. 25 µm copper