



preci-dip

# PCB CONNECTORS

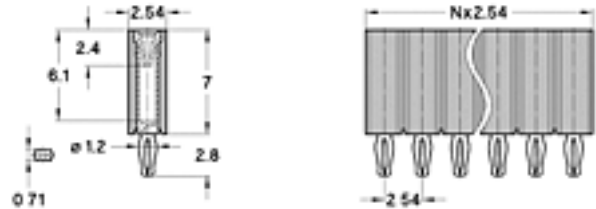
**SERIES**  
**801**

**801-PP-NNN-65-410101**

Single row

2.54 mm, Solderless compliant press-fit, Mating pin 0.47mm

Socket connectors, press-fit With compliant pin for solderless mount in PCB plated through holes.



## TECHNICAL SPECS.:

<b>Insulator</b>	Black glass filled polyester PCT-GF30-FR
<b>Flammability</b>	UL 94V-O
<b>Sleeve</b>	Bronze CuSn4Pb4Zn4 (C54400)
<b>Contact</b>	Clip (4 finger): Beryllium copper (C17200)
<b>Mating pin Ø</b>	0.40 to 0.56 mm
<b>Insertion force</b>	2 N typ.
<b>Withdrawal force</b>	1 N typ. (polished steel gauge Ø 0.43 mm)
<b>Mechanical life</b>	Min. 500 cycles
<b>Rated current</b>	3 A
<b>Contact resistance</b>	Max. 10 m
<b>Dielectric strength</b>	Min. 1000 V RMS
<b>PCB hole Ø</b>	1 mm +0.09/-0.06 mm finished (1.15 ±0.025 mm drill)

## 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-65-410101 for a single row version with 8 pins becomes 801-87-008-65-410101.

# 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 :

SERIES	3xx/4xx/7xx	80x	83x	85x	86x
mm	0.7	0.85 / 0.7	0.5	0.4 / 0.5	0.5

## 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

## 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.)

## PCB HOLE DIMENSIONS

- 2 mm grid: Finished hole  $\varnothing$ :  $0.7 + 0.09/-0.06$  mm | Drilled hole  $\varnothing$ :  $0.8 \pm 0.02$  mm
- 2.54 mm grid: Finished hole  $\varnothing$ :  $1 + 0.09/-0.06$  mm | Drilled hole  $\varnothing$ :  $1.15 \pm 0.02$  mm

## PCB HOLE PLATING

- PCB surface finish: Hole plating
- Tin: 5-15  $\mu\text{m}$  tin over min. 25  $\mu\text{m}$  copper
- Copper: min. 25  $\mu\text{m}$  copper
- Gold over nickel: 0.05-0.2  $\mu\text{m}$  gold over 2.5-5  $\mu\text{m}$  nickel over min. 25  $\mu\text{m}$  copper

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Preci-dip:

[801-87-002-65-410101](#) [801-87-007-65-410101](#) [801-87-015-65-410101](#) [801-87-009-65-410101](#) [801-87-008-65-410101](#) [801-87-016-65-410101](#) [801-83-009-65-410101](#) [801-83-050-65-410101](#) [801-83-047-65-410101](#) [801-83-027-65-410101](#) [801-83-007-65-410101](#) [801-83-036-65-410101](#) [801-83-031-65-410101](#) [801-83-015-65-410101](#) [801-83-035-65-410101](#) [801-83-028-65-410101](#) [801-83-006-65-410101](#) [801-83-004-65-410101](#) [801-83-046-65-410101](#) [801-83-026-65-410101](#) [801-83-034-65-410101](#) [801-83-003-65-410101](#) [801-87-021-65-410101](#) [801-87-005-65-410101](#) [801-87-004-65-410101](#) [801-83-042-65-410101](#) [801-83-041-65-410101](#) [801-83-039-65-410101](#) [801-83-029-65-410101](#) [801-83-016-65-410101](#) [801-87-050-65-410101](#) [801-87-048-65-410101](#) [801-83-038-65-410101](#) [801-83-044-65-410101](#) [801-83-018-65-410101](#) [801-83-005-65-410101](#) [801-83-002-65-410101](#) [801-83-040-65-410101](#) [801-83-012-65-410101](#) [801-83-010-65-410101](#) [801-83-008-65-410101](#) [801-83-030-65-410101](#) [801-87-038-65-410101](#) [801-87-036-65-410101](#) [801-83-013-65-410101](#) [801-83-023-65-410101](#) [801-83-037-65-410101](#) [801-83-032-65-410101](#) [801-87-035-65-410101](#) [801-83-021-65-410101](#) [801-83-020-65-410101](#) [801-83-043-65-410101](#) [801-83-024-65-410101](#) [801-83-011-65-410101](#) [801-87-023-65-410101](#) [801-83-022-65-410101](#) [801-83-045-65-410101](#) [801-87-047-65-410101](#) [801-87-028-65-410101](#) [801-87-039-65-410101](#) [801-83-014-65-410101](#) [801-83-025-65-410101](#) [801-83-019-65-410101](#) [801-83-048-65-410101](#) [801-87-043-65-410101](#) [801-87-037-65-410101](#) [801-83-033-65-410101](#) [801-83-049-65-410101](#) [801-87-020-65-410101](#) [801-87-017-65-410101](#) [801-87-018-65-410101](#) [801-87-010-65-410101](#) [801-87-019-65-410101](#) [801-83-017-65-410101](#) [801-87-006-65-410101](#) [801-87-040-65-410101](#) [801-87-031-65-410101](#) [801-87-042-65-410101](#) [801-87-032-65-410101](#) [801-87-012-65-410101](#) [801-87-033-65-410101](#) [801-87-003-65-410101](#) [801-87-024-65-410101](#) [801-87-029-65-410101](#) [801-87-026-65-410101](#) [801-87-030-65-410101](#) [801-87-041-65-410101](#) [801-87-025-65-410101](#) [801-87-027-65-410101](#) [801-87-049-65-410101](#) [801-87-014-65-410101](#) [801-87-034-65-410101](#) [801-87-011-65-410101](#) [801-87-022-65-410101](#) [801-87-046-65-410101](#) [801-87-045-65-410101](#) [801-87-044-65-410101](#) [801-87-013-65-410101](#)