



preci-dip

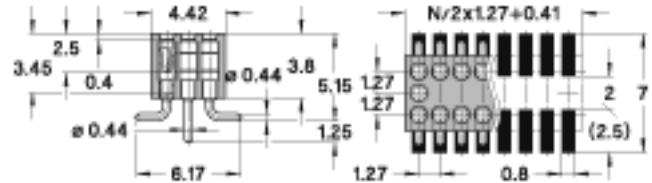
# PCB CONNECTORS

**SERIES**  
**853**

**853-PP-NNN-30-051101**

Double row  
1.27 mm, Surface mount perpendicular gull-wing

Ultraminiature PCB socket connectors SMD mount.



## TECHNICAL SPECS.:

<b>Insulator</b>	Black glass filled polyester PCT-GF30-FR
<b>Flammability</b>	UL 94V-O
<b>Sleeve</b>	Brass CuZn36Pb3 (C36000)
<b>Contact</b>	Clip (3 finger): Beryllium copper (C17200)
<b>Mating pin Ø</b>	0.35 to 0.50 mm
<b>Insertion force</b>	0.5 N typ.
<b>Withdrawal force</b>	0.2 N typ. (polished steel gauge Ø 0.41 mm)
<b>Mechanical life</b>	Min. 500 cycles
<b>Rated current</b>	1 A
<b>Contact resistance</b>	Max. 20 m
<b>Dielectric strength</b>	Min. 500 V RMS
<b>Coplanarity SMD terminations</b>	Max. 0.1 mm (measured on 25 mm long connectors)

## 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. 851-83-NNN-30-001101 for a single row version with 8 pins becomes 851-83-008-30-001101

# 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

## PACKAGING:

Standard connector packaging is card box.

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

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Headers & Wire Housings](#) category:*

*Click to view products by [Precidip](#) manufacturer:*

Other Similar products are found below :

[892-18-020-10-001101](#) [58102-G61-06LF](#) [582553-1](#) [0009485154](#) [009176003701906](#) [0050291907](#) [LY20-4P-DT1-P1E-BR](#) [02.125.8002.8](#)  
[609-3404](#) [61062-3](#) [61082-181009](#) [622-3653LF](#) [63453-116](#) [636-1030](#) [636-1427](#) [636-3427](#) [636-4007](#) [641938-9](#) [641991-4](#) [644827-2](#) [65817-](#)  
[010LF](#) [65817-015LF](#) [65863-015LF](#) [66207-023LF](#) [67095-007LF](#) [67601157](#) [68645-018](#) [68648-049](#) [70.362.1628.0](#) [70-4210](#) [70-4226B](#) [70-](#)  
[4853B](#) [707-5020](#) [707-5028](#) [71.350.2428.0](#) [71918-208LF](#) [71961-016LF](#) [733-134](#) [733-162](#) [754199-000](#) [760-3052](#) [787-8014-00](#) [79531-3000](#)  
[FCN-360C032-B](#) [FCN-367T-T012/H](#) [FCN-723D010/2](#) [80.063.4001.1](#) [800-90-001-10-001000](#) [800-90-010-10-002000](#) [801-43-002-10-013000](#)