



preci-dip


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# DIL SOCKETS

## GENERAL SPECIFICATIONS

The values listed below are general specs applying for Preci-Dip DIL sockets. Please see individual catalog page for additional and product specific technical data.

<b>OPERATING TEMPERATURE RANGE</b>	-55 ... +125 °C
<b>CLIMATIC CATEGORY (IEC)</b>	55/125/21
<b>OPERATING HUMIDITY RANGE</b>	Annual mean 75%
<b>MAX. WORKING VOLTAGE</b>	100 V <sub>RMS</sub> /150 V <sub>DC</sub>

 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

<b>CLIP RETENTION</b>	Min. 40 N (no displacement under axial force applied)
<b>CONTACT (SLEEVE / CLIP) RETENTION</b>	Min. 3.3 N acc. to MIL-DTL-83734, pt 4.6.4.2

### ELECTRICAL CHARACTERISTICS

<b>INSULATION RESISTANCE AT 500 V AC BETWEEN ANY TWO ADJACENT CONTACTS</b>	Min. 10'000 MΩ
<b>CAPACITANCE BETWEEN ANY TWO ADJACENT CONTACTS</b>	Max. 1 pF
<b>AIR AND CREEPAGE DISTANCES BETWEEN ANY TWO ADJACENT CONTACTS (Min. 0.2 mm FOR SHRINK-DIP SOCKETS)</b>	Min. 0.6 mm

### 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, 16 h
  - 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-020C, 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 3<sup>rd</sup> cycle: 20 N min. (at max. hole dia.)

#### PCB HOLE DIMENSIONS

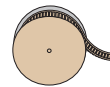
- 2.54 mm grid  
Finished hole Ø: 1 + 0.09/-0.06 mm  
Drilled hole Ø: 1.15 ± 0.025 mm

#### 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

### PACKAGING

- Standard packaging for DIL sockets is tube packaging.
- SMD mount sockets available on request with Tape & Reel packaging acc. to EIA Standard 481. These products are marked with the symbol:



T & R Packaging

Please consult [www.precidip.com](http://www.precidip.com) for availability, size of tape, size of reel, number of components per reel and packing units.

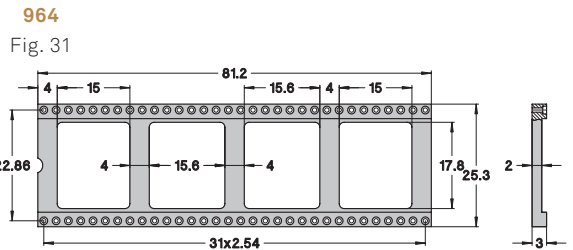
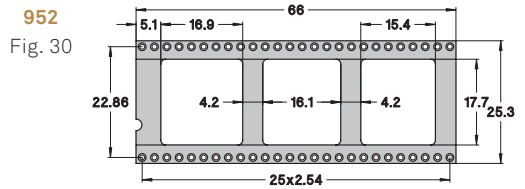
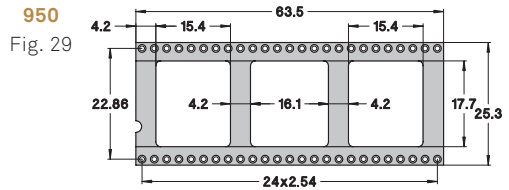
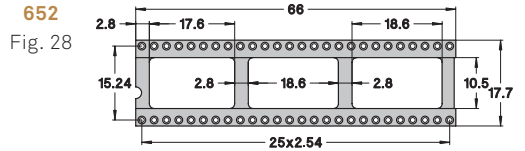
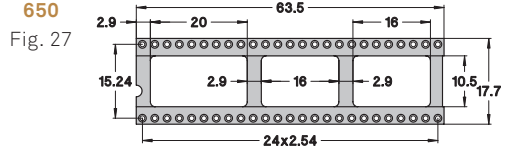
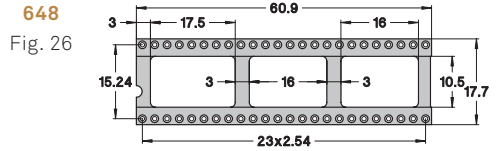
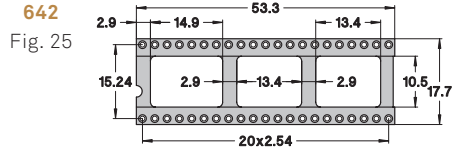
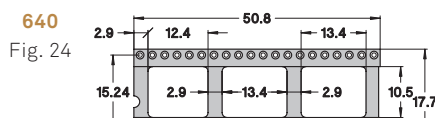
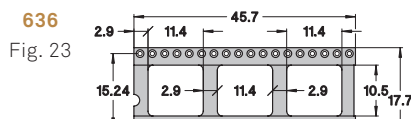
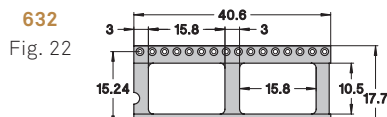
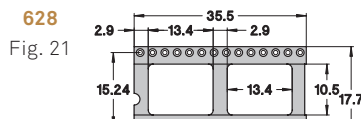
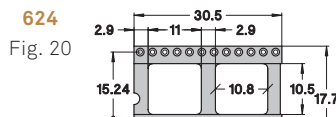
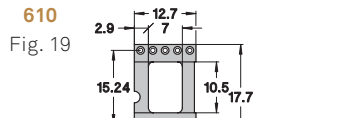
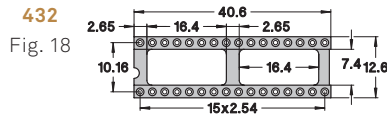
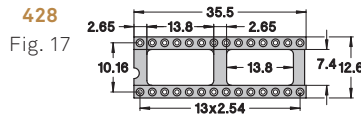
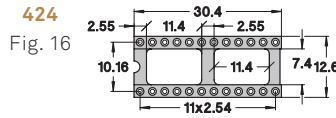
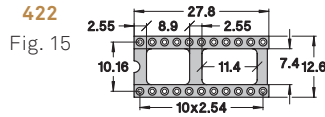
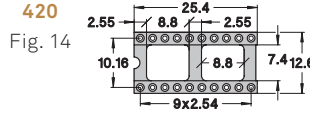
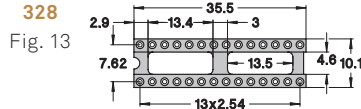
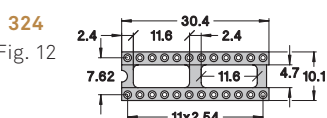
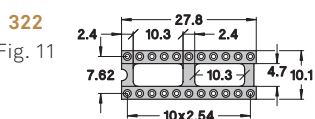
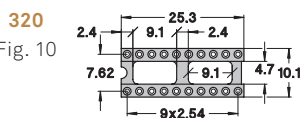
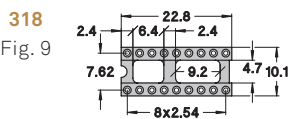
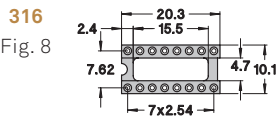
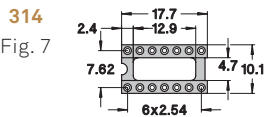
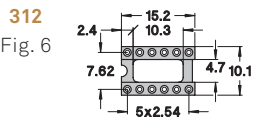
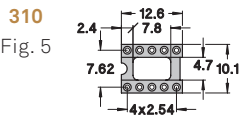
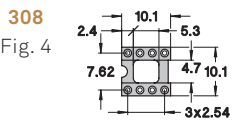
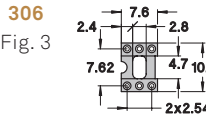
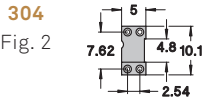
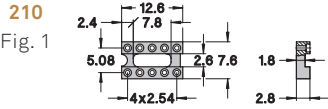


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# DUAL-IN-LINE SOCKETS

INSULATOR BODIES / STANDARD, OPEN FRAME



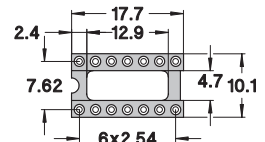
## ORDERING INFORMATION

Example:

110-PP-**314**-41-001101 (Order Code)

Row spacing  
Number of pins

**314**  
Fig. 7





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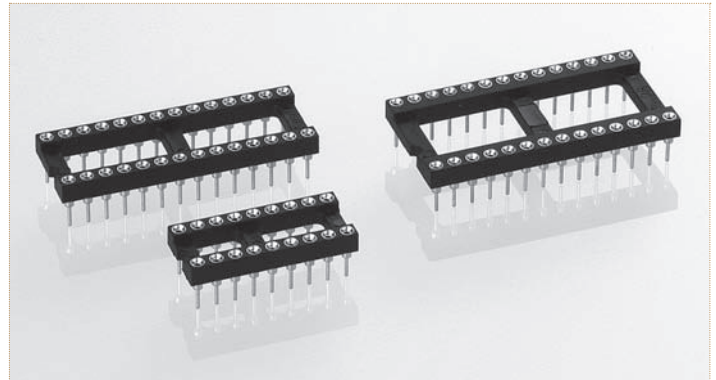
# DUAL-IN-LINE SOCKETS

OPEN FRAME / SOLDER TAIL

Open frame standard low profile DIL Sockets.

## TECHNICAL SPECIFICATIONS (FOR GENERAL SPECS, SEE PAGE 127)

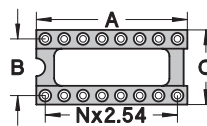
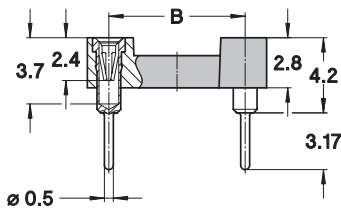
<b>INSULATOR</b>	Black glass filled polyester PCT-GF30-FR
<b>FLAMMABILITY</b>	UL 94V-0
<b>SLEEVE</b>	Brass CuZn36Pb3 (C36000)
<b>CONTACT CLIP (4 FINGER)</b>	Beryllium copper (C17200)
<b>ACCEPTED PIN Ø</b>	0.40 to 0.56 mm
<b>FORCES</b>	2 N typ. insertion 1 N typ. withdrawal (polished steel gauge Ø 0.43 mm)
<b>MECHANICAL LIFE</b>	Min. 500 cycles
<b>MECHANICAL LIFE</b>	Min. 100 cycles
<b>RATED CURRENT</b>	1 A
<b>CONTACT RESISTANCE</b>	Max. 10 mΩ
<b>DIELECTRIC STRENGTH</b>	Min. 1'000 VRMS



## ORDERING INFORMATION ROHS COMPLIANT PARTS

PP PLATING CODE	SLEEVE	CLIP
87	Tin	Flash gold
83	Tin	0.75 µm gold

Other plating on request (see page 178 for plating specs).



NO. OF POLES	A	B	C	SEE PAGE 128	ORDER CODES
10	12.6	5.08	7.6	Fig. 1	110-PP-210-41-001101
4	5.0	7.62	10.1	Fig. 2	110-PP-304-41-001101
6	7.6	7.62	10.1	Fig. 3	110-PP-306-41-001101
8	10.1	7.62	10.1	Fig. 4	110-PP-308-41-001101
10	12.6	7.62	10.1	Fig. 5	110-PP-310-41-001101
12	15.2	7.62	10.1	Fig. 6	110-PP-312-41-001101
14	17.7	7.62	10.1	Fig. 7	110-PP-314-41-001101
16	20.3	7.62	10.1	Fig. 8	110-PP-316-41-001101
18*	22.8	7.62	10.1	Fig. 9	110-PP-318-41-001101
20*	25.3	7.62	10.1	Fig. 10	110-PP-320-41-001101
22*	27.8	7.62	10.1	Fig. 11	110-PP-322-41-001101
24*	30.4	7.62	10.1	Fig. 12	110-PP-324-41-001101
28	35.5	7.62	10.1	Fig. 13	110-PP-328-41-001101
20	25.4	10.16	12.6	Fig. 14	110-PP-420-41-001101
22	27.8	10.16	12.6	Fig. 15	110-PP-422-41-001101
24	30.4	10.16	12.6	Fig. 16	110-PP-424-41-001101
28	35.5	10.16	12.6	Fig. 17	110-PP-428-41-001101
32	40.6	10.16	12.6	Fig. 18	110-PP-432-41-001101
10	12.7	15.24	17.7	Fig. 19	110-PP-610-41-001101
24*	30.5	15.24	17.7	Fig. 20	110-PP-624-41-001101
28*	35.5	15.24	17.7	Fig. 21	110-PP-628-41-001101
32*	40.6	15.24	17.7	Fig. 22	110-PP-632-41-001101
36	45.7	15.24	17.7	Fig. 23	110-PP-636-41-001101
40*	50.8	15.24	17.7	Fig. 24	110-PP-640-41-001101
42	53.3	15.24	17.7	Fig. 25	110-PP-642-41-001101
48*	60.9	15.24	17.7	Fig. 26	110-PP-648-41-001101
50	63.5	15.24	17.7	Fig. 27	110-PP-650-41-001101
52	66.0	15.24	17.7	Fig. 28	110-PP-652-41-001101
50	63.5	22.86	25.3	Fig. 29	110-PP-950-41-001101
52	66.0	22.86	25.3	Fig. 30	110-PP-952-41-001101
64	81.2	22.86	25.3	Fig. 31	110-PP-964-41-001101

## OPTIONS

- 1 **Insulators without center bar \***  
Open frame insulators 318, 320, 322, 324, 624, 628, 632, 640 and 648 available on special request without center bars; add suffix 151 to the part number. Example 110-83-628-41-001101 becomes 110-83-628-41-001151
- 2 **Sockets with increased solder tail length of 4.2 mm**  
allowing application on multilayer PCBs up to 3.4 mm thickness replace 110-... by 111-...
- 3 **Sockets with soft brass pin series 110-...-005101**, please consult
- 4 **For DIL Sockets with closed frame insulators** replace 110-... by 210-... Please consult for available pin numbers