



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 VRMS/150 VDC

 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

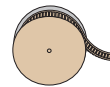
- 2.54 mm grid  
Finished hole Ø: 1 + 0.09/-0.06 mm  
Drilled hole Ø: 1.15 ± 0.025 mm

#### 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.

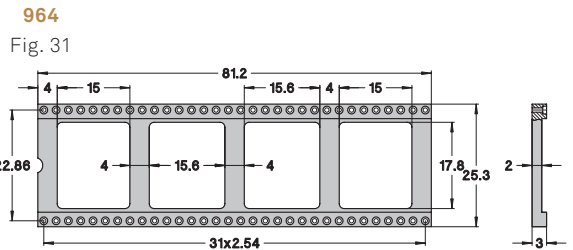
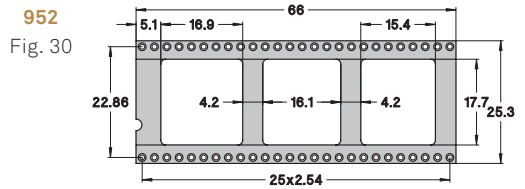
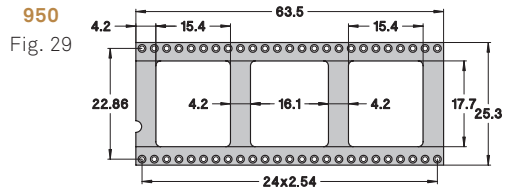
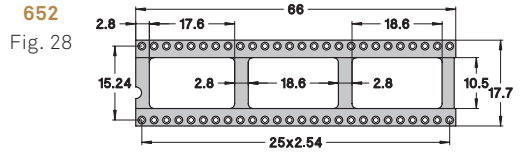
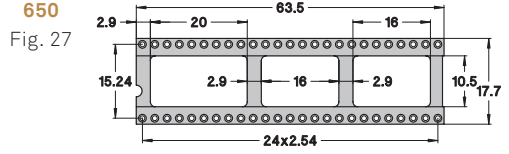
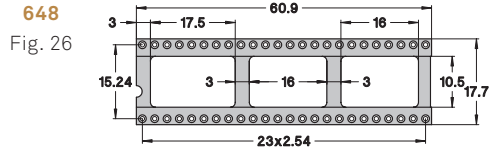
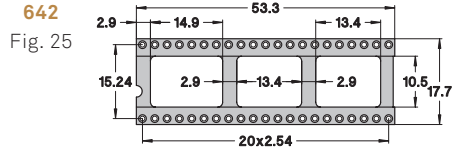
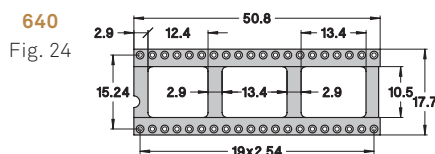
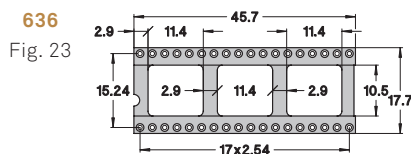
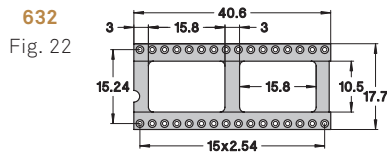
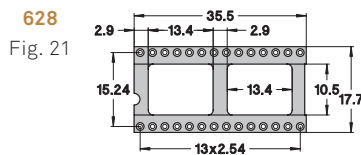
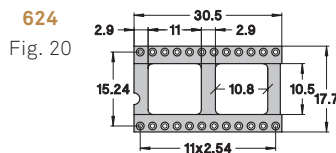
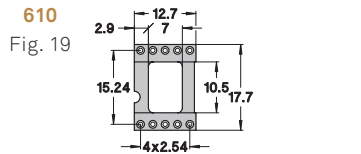
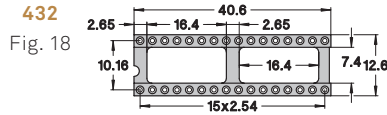
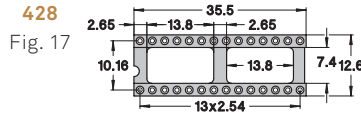
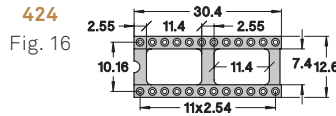
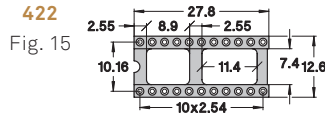
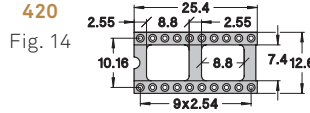
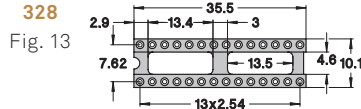
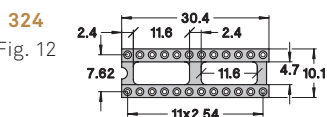
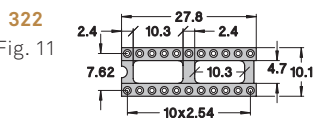
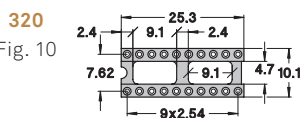
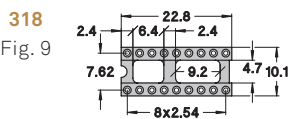
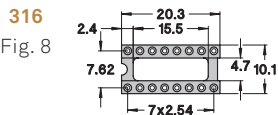
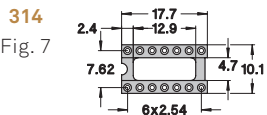
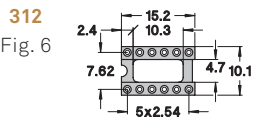
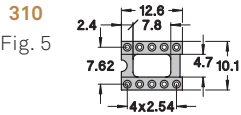
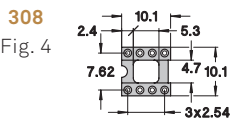
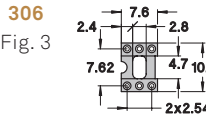
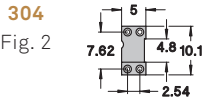
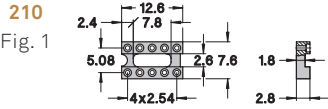


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# DUAL-IN-LINE SOCKETS

INSULATOR BODIES / STANDARD, OPEN FRAME



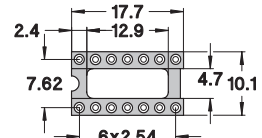
## ORDERING INFORMATION

Example:

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

Row spacing  
Number of pins

**314**  
Fig. 7





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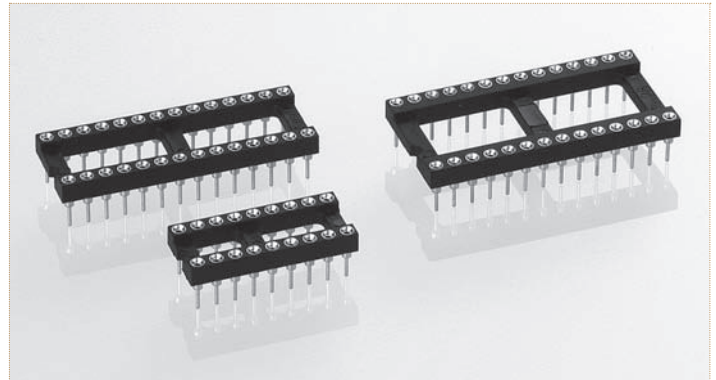
# DUAL-IN-LINE SOCKETS

OPEN FRAME / SOLDER TAIL

Open frame standard low profile DIL Sockets.

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

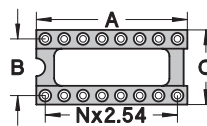
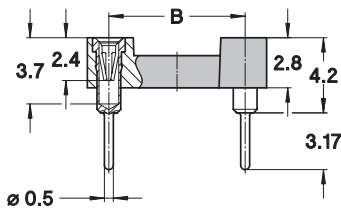
<b>INSULATOR</b>	Black glass filled polyester PCT-GF30-FR
<b>FLAMMABILITY</b>	UL 94V-0
<b>SLEEVE</b>	Brass CuZn36Pb3 (C36000)
<b>CONTACT CLIP (4 FINGER)</b>	Beryllium copper (C17200)
<b>ACCEPTED PIN Ø</b>	0.40 to 0.56 mm
<b>FORCES</b>	2 N typ. insertion 1 N typ. withdrawal (polished steel gauge Ø 0.43 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

<b>PP PLATING CODE</b>	<b>SLEEVE</b>	<b>CLIP</b>
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

DIL SOCKETS