



















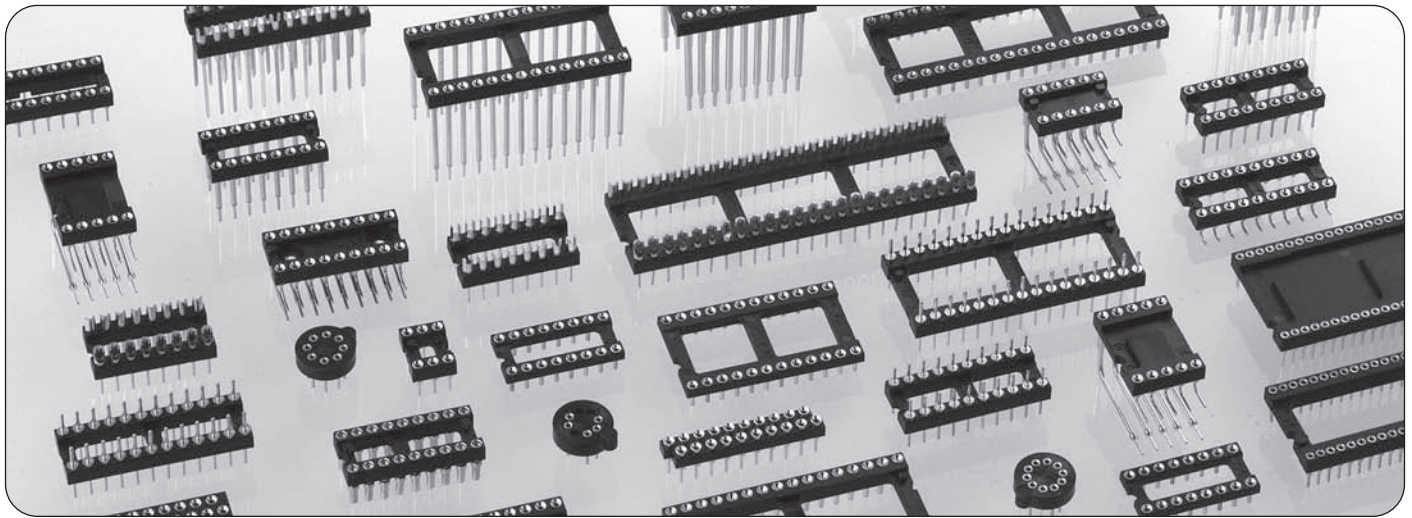
Quick Selector Chart

DIL / SIL / TO Sockets

	Grid	DIL			SIL	TO
		2.54 mm	1.778 mm	Staggered 2.54 mm	Staggered 2.54 mm	
Sockets		See page				
Solder tail		101	113	122	122	121
Solder tail automatic insertion		102				
Solder tail with decoupling capacitor		103				
Solder tail ultralow profile		109				
Solder tail interconnect		110				
Surface mount		104, 106	113			
Surface mount pick and place		105, 107				121
Solderless press-fit mount		114				
Wire-wrap		111				
Carrier		115				
Display right angle solder tail		116				
Crystal relay and display partially equipped solder tail		123				
Headers		See page				
Solder tail		117	113			
Solder tail interconnect		117				
Surface mount		118				
Surface mount pick and place		119				
Solder tail wiring slotted head		120				
Solder tail wiring turret head		120				
Solder tail wiring solder cup		120				

Due to technical progress, all the information provided is subject to change without prior notice





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.

- Operating temperature range: -55 ... +125 °C
- Climatic category (IEC): 55/125/21
- Operating humidity range: annual mean 75 %
- Max working voltage: 100 V_{RMS}/150 V_{DC}

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 retention: min. 3.3 N acc. to MIL-DTL-83734, pt 4.6.4.2

Electrical characteristics

- Insulation resistance at 500 V AC between any two adjacent contacts: min 10'000 MΩ
- Capacitance between any two adjacent contacts: max 1 pF
- Air and creepage distances between any two adjacent contacts (min 0.2 mm for Shrink-Dip sockets): 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 IEC 60068-2-20.Ta: 235 °C, 2 s
- Resistance to soldering heat IEC 60068-2-20.Tb:
 - Through hole mount components: 260 °C, 5 s
 - SMD mount components: 280 °C, 10 s
- 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 sockets

- 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.)

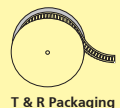
- PCB hole specifications:

PCB surface finish	Tin	Copper	Gold over Nickel
Finished hole diameter		1 +0.09/-0.06 mm	
Drilled hole diameter		1.15 ± 0.025 mm	
Copper thickness		min. 25 µm	
Tin thickness	5-15 µm	-	-
Nickel thickness	-	-	2.5-5 µm
Gold thickness	-	-	0.05-0.2 µm

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

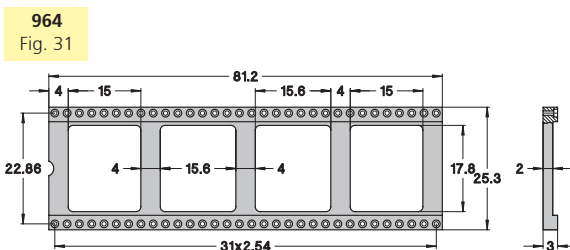
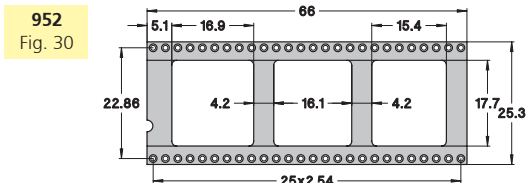
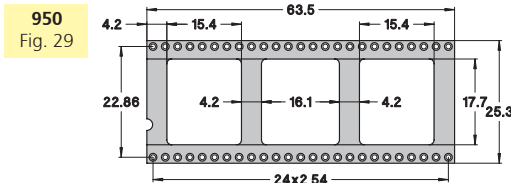
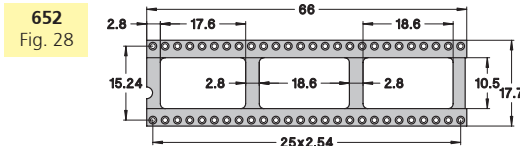
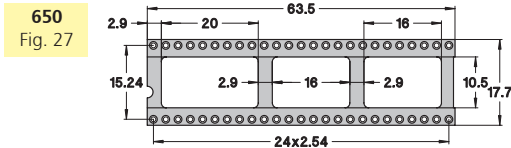
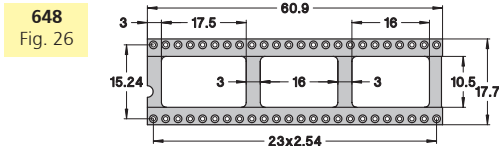
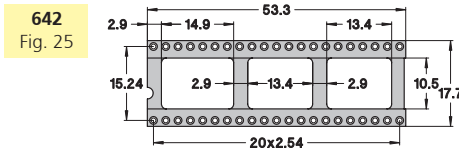
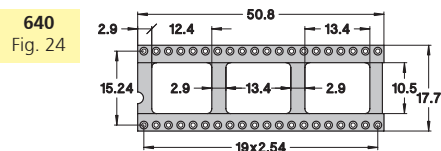
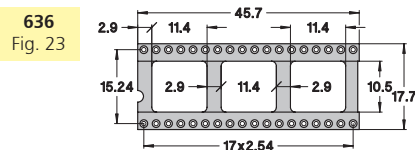
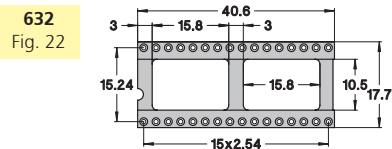
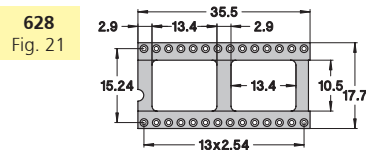
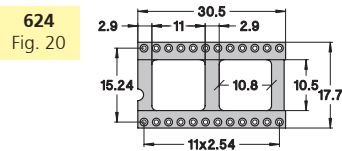
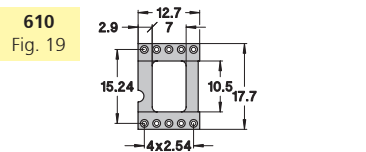
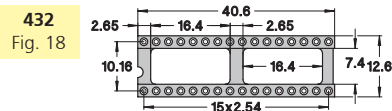
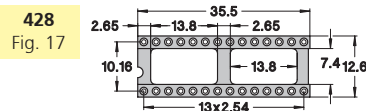
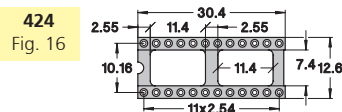
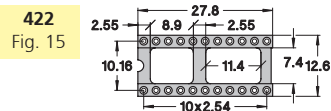
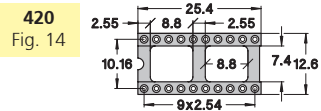
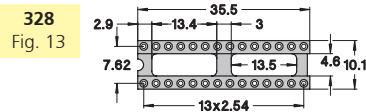
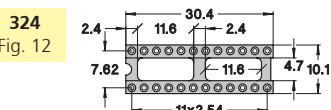
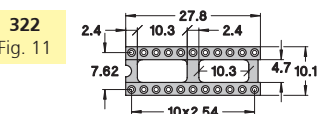
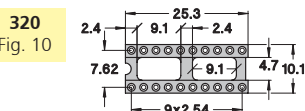
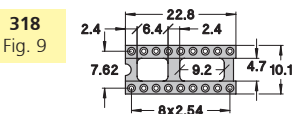
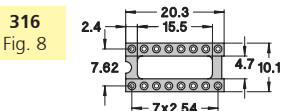
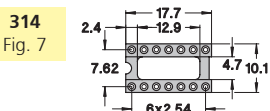
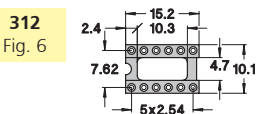
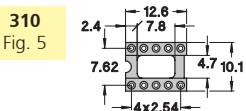
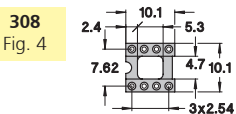
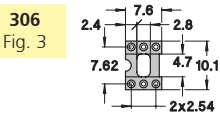
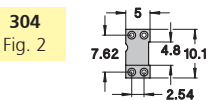
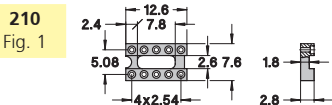


T & R Packaging

Please consult www.precidip.com for availability, size of tape, size of reel, number of components per reel and packing units.

Due to technical progress, all the information provided is subject to change without prior notice



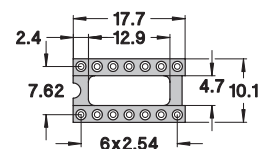


Ordering information

Example:

110-PP-**314**-41-001001 (Order Code)

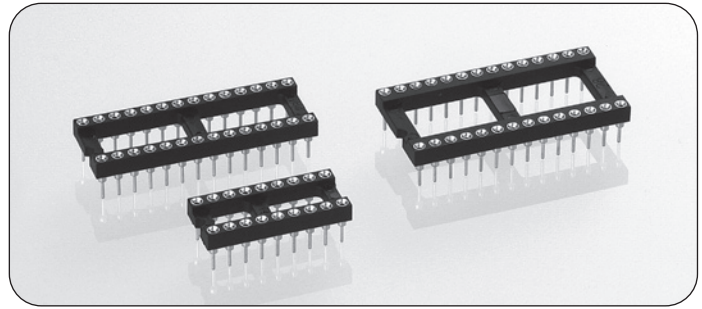
314
Fig. 7



Open frame standard low profile DIL Sockets

Technical Specs:

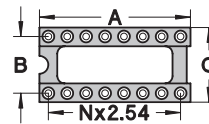
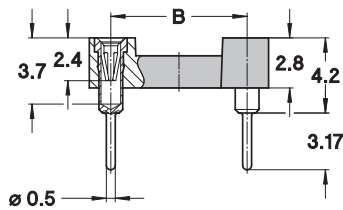
Insulator:	Black glass filled polyester PBT-GF30-FR
Flammability:	UL 94V-O
Sleeve:	Brass CuZn36Pb3 (C36000)
Contact clip (4 finger):	Beryllium copper (C17200)
Accepted pin Ø:	0.40 to 0.56 mm
Forces:	(polished steel gauge Ø 0.43 mm)
- Insertion	2 N typ.
- Withdrawal	1 N typ.
Mechanical life:	min 100 cycles
Rated current:	1 A
Contact resistance:	max 10 mΩ
Dielectric strength:	min 1000 V _{RMS}



Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm
99	Tin	Tin

Other plating on request see page 146 for plating specs



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	110-PP-210-41-001001
4	5.0	7.62	10.1	Fig. 2	110-PP-304-41-001001
6	7.6	7.62	10.1	Fig. 3	110-PP-306-41-001001
8	10.1	7.62	10.1	Fig. 4	110-PP-308-41-001001
10	12.6	7.62	10.1	Fig. 5	110-PP-310-41-001001
12	15.2	7.62	10.1	Fig. 6	110-PP-312-41-001001
14	17.7	7.62	10.1	Fig. 7	110-PP-314-41-001001
16	20.3	7.62	10.1	Fig. 8	110-PP-316-41-001001
18*	22.8	7.62	10.1	Fig. 9	110-PP-318-41-001001
20*	25.3	7.62	10.1	Fig. 10	110-PP-320-41-001001
22*	27.8	7.62	10.1	Fig. 11	110-PP-322-41-001001
24*	30.4	7.62	10.1	Fig. 12	110-PP-324-41-001001
28	35.5	7.62	10.1	Fig. 13	110-PP-328-41-001001
20	25.4	10.16	12.6	Fig. 14	110-PP-420-41-001001
22	27.8	10.16	12.6	Fig. 15	110-PP-422-41-001001
24	30.4	10.16	12.6	Fig. 16	110-PP-424-41-001001
28	35.5	10.16	12.6	Fig. 17	110-PP-428-41-001001
32	40.6	10.16	12.6	Fig. 18	110-PP-432-41-001001
10	12.7	15.24	17.7	Fig. 19	110-PP-610-41-001001
24*	30.5	15.24	17.7	Fig. 20	110-PP-624-41-001001
28*	35.5	15.24	17.7	Fig. 21	110-PP-628-41-001001
32*	40.6	15.24	17.7	Fig. 22	110-PP-632-41-001001
36	45.7	15.24	17.7	Fig. 23	110-PP-636-41-001001
40*	50.8	15.24	17.7	Fig. 24	110-PP-640-41-001001
42	53.3	15.24	17.7	Fig. 25	110-PP-642-41-001001
48*	60.9	15.24	17.7	Fig. 26	110-PP-648-41-001001
50	63.5	15.24	17.7	Fig. 27	110-PP-650-41-001001
52	66.0	15.24	17.7	Fig. 28	110-PP-652-41-001001
50	63.5	22.86	25.3	Fig. 29	110-PP-950-41-001001
52	66.0	22.86	25.3	Fig. 30	110-PP-952-41-001001
64	81.2	22.86	25.3	Fig. 31	110-PP-964-41-001001

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 051 to the part number. Example 110-93-628-41-001001 becomes 110-93-628-41-001051
- 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-.....-**005001**, please consult
- 4 For DIL Sockets with closed frame insulators replace **110-...** by **210-...** Please consult for available pin numbers

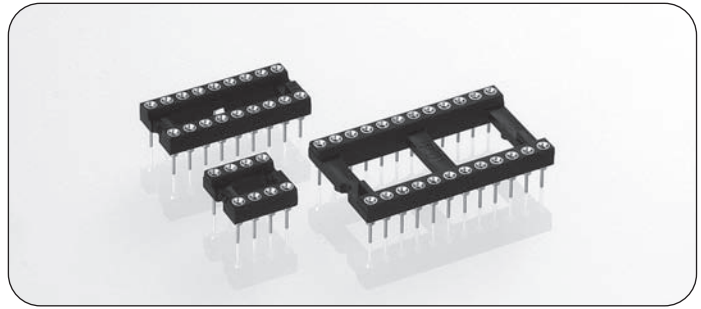
Due to technical progress, all the information provided is subject to change without prior notice



DIL sockets with ribbed insulator body and soft copper alloy contacts compatible with automatic insertion equipment

Technical Specs:

Insulator:	Black glass filled polyester PBT-GF30-FR
Flammability:	UL 94V-O
Sleeve:	Brass CuZn36Pb3 (C36000)
Contact clip (4 finger):	Beryllium copper (C17200)
Accepted pin Ø:	0.40 to 0.56 mm
Forces:	(polished steel gauge Ø 0.43 mm)
- Insertion	2 N typ.
- Withdrawal	1 N typ.
Mechanical life:	min 100 cycles
Rated current:	1 A
Contact resistance:	max 10 mΩ
Dielectric strength:	min 1000 V _{RMS}

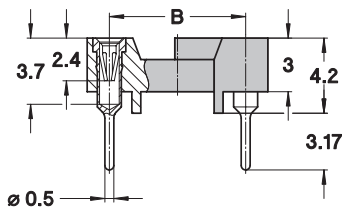


Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm
99	Tin	Tin

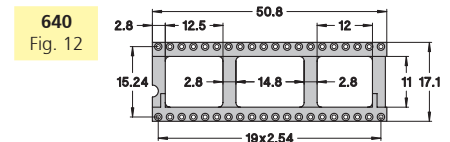
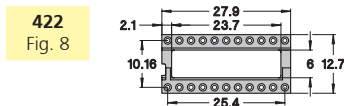
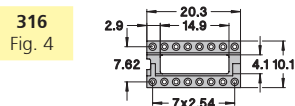
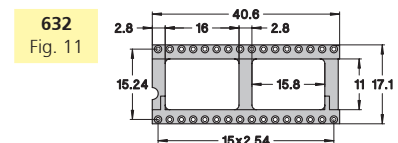
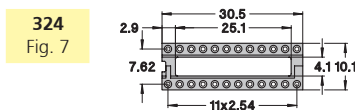
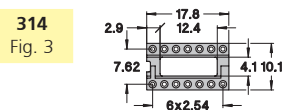
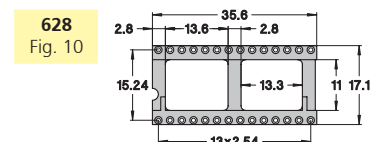
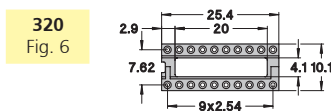
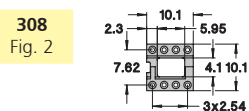
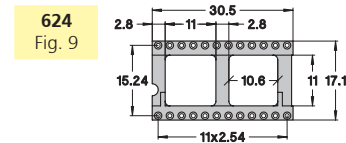
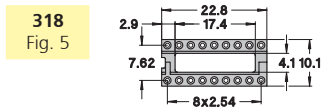
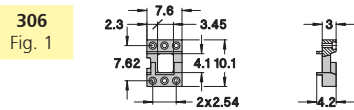
Other plating on request see page 146 for plating specs

Other pin count please consult



No. of poles	B	See below	Order Codes
6	7.62	Fig. 1	110-PP-306-41-605001
8	7.62	Fig. 2	110-PP-308-41-605001
14	7.62	Fig. 3	110-PP-314-41-605001
16	7.62	Fig. 4	110-PP-316-41-605001
18	7.62	Fig. 5	110-PP-318-41-605001
20	7.62	Fig. 6	110-PP-320-41-605001
24	7.62	Fig. 7	110-PP-324-41-605001
22	10.16	Fig. 8	110-PP-422-41-605001
24	15.24	Fig. 9	110-PP-624-41-605001
28	15.24	Fig. 10	110-PP-628-41-605001
32	15.24	Fig. 11	110-PP-632-41-605001
40	15.24	Fig. 12	110-PP-640-41-605001

Insulator bodies



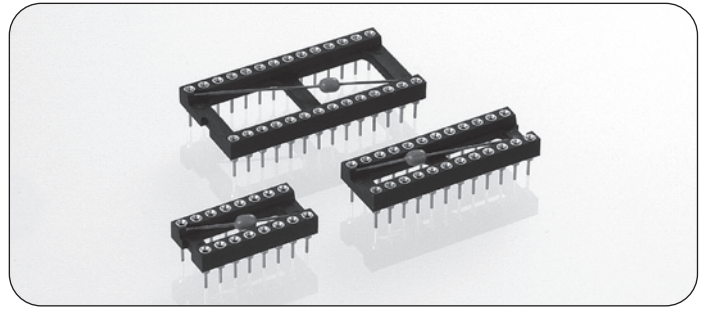
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With ceramic multilayer decoupling capacitor 100 nF ± 20% / 50 V, epoxy encapsulated

Technical Specs:

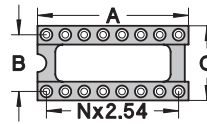
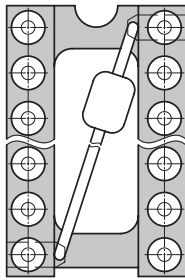
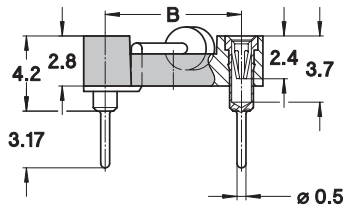
Insulator: Black glass filled polyester PBT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 – Insertion 2 N typ.
 – Withdrawal 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}
 Temperature range: -25°C to +85°C



Ordering information

PP Plating code	Sleeve	Clip
93	Tin	Gold 0.75 µm

Other plating on request see page 146 for plating specs



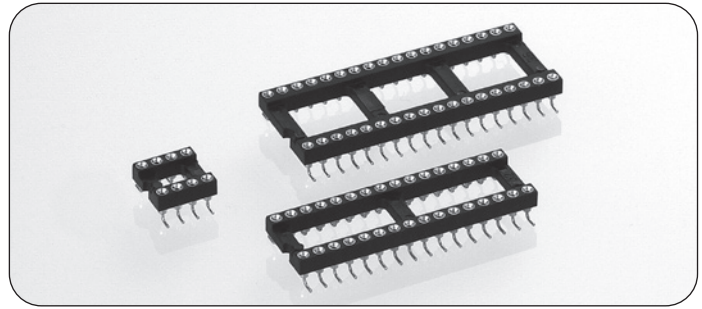
No. of poles	A	B	C	See page 100	Order Codes
8	10.1	7.62	10.1	Fig. 4	110-PP-308-41-801001
14	17.7	7.62	10.1	Fig. 7	110-PP-314-41-801001
16	20.3	7.62	10.1	Fig. 8	110-PP-316-41-801001
18	22.8	7.62	10.1	Fig. 9	110-PP-318-41-801001
20	25.3	7.62	10.1	Fig. 10	110-PP-320-41-801001
22	27.8	7.62	10.1	Fig. 11	110-PP-322-41-801001
24	30.4	7.62	10.1	Fig. 12	110-PP-324-41-801001
22	27.8	10.16	12.6	Fig. 15	110-PP-422-41-801001
24	30.5	15.24	17.7	Fig. 20	110-PP-624-41-801001
28	35.5	15.24	17.7	Fig. 21	110-PP-628-41-801001
32	40.6	15.24	17.7	Fig. 22	110-PP-632-41-801001
40	50.8	15.24	17.7	Fig. 24	110-PP-640-41-801001



Specially designed for reflow soldering including vapor phase. Gull wing terminations for maximum strength and easy in-circuit test

Technical Specs:

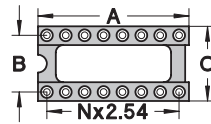
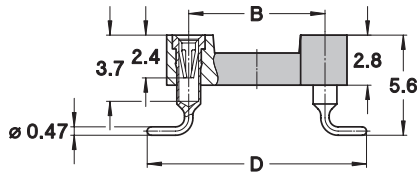
Insulator: Black glass filled polyester PCT-GF30-FR
 Flammability: UL 94V-0
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 – Insertion 2 N typ.
 – Withdrawal 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}
 Coplanarity SMD terminations: max 0.10 mm



Ordering information

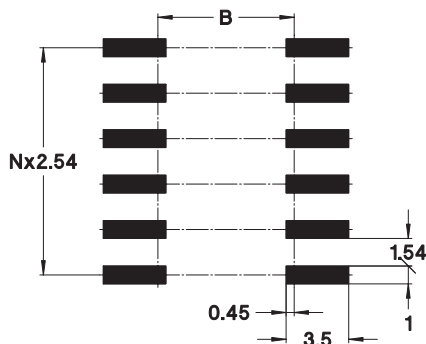
PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

Other plating on request see page 146 for plating specs



No. of poles	A	B	C	D	See page 100	Order Codes
10	12.6	5.08	7.6	9.72	Fig. 1	110-PP-210-41-105101
4	5.0	7.62	10.1	12.26	Fig. 2	110-PP-304-41-105101
6	7.6	7.62	10.1	12.26	Fig. 3	110-PP-306-41-105101
8	10.1	7.62	10.1	12.26	Fig. 4	110-PP-308-41-105101
10	12.6	7.62	10.1	12.26	Fig. 5	110-PP-310-41-105101
12	15.2	7.62	10.1	12.26	Fig. 6	110-PP-312-41-105101
14	17.7	7.62	10.1	12.26	Fig. 7	110-PP-314-41-105101
16	20.3	7.62	10.1	12.26	Fig. 8	110-PP-316-41-105101
18	22.8	7.62	10.1	12.26	Fig. 9	110-PP-318-41-105101
20	25.3	7.62	10.1	12.26	Fig. 10	110-PP-320-41-105101
22	27.8	7.62	10.1	12.26	Fig. 11	110-PP-322-41-105101
24	30.4	7.62	10.1	12.26	Fig. 12	110-PP-324-41-105101
28	35.5	7.62	10.1	12.26	Fig. 13	110-PP-328-41-105101
20	25.4	10.16	12.6	14.80	Fig. 14	110-PP-420-41-105101
22	27.8	10.16	12.6	14.80	Fig. 15	110-PP-422-41-105101
24	30.4	10.16	12.6	14.80	Fig. 16	110-PP-424-41-105101
28	35.5	10.16	12.6	14.80	Fig. 17	110-PP-428-41-105101
32	40.6	10.16	12.6	14.80	Fig. 18	110-PP-432-41-105101
24	30.5	15.24	17.7	19.88	Fig. 20	110-PP-624-41-105101
28	35.5	15.24	17.7	19.88	Fig. 21	110-PP-628-41-105101
32	40.6	15.24	17.7	19.88	Fig. 22	110-PP-632-41-105101
36	45.7	15.24	17.7	19.88	Fig. 23	110-PP-636-41-105101
40	50.8	15.24	17.7	19.88	Fig. 24	110-PP-640-41-105101
42	53.3	15.24	17.7	19.88	Fig. 25	110-PP-642-41-105101
48	60.9	15.24	17.7	19.88	Fig. 26	110-PP-648-41-105101

PCB Layout



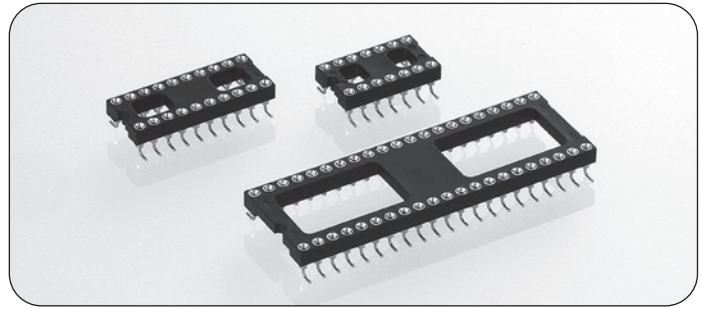
Due to technical progress, all the information provided is subject to change without prior notice



Specially designed for reflow soldering including vapor phase. Gull wing terminations for maximum strength and easy in-circuit test

Technical Specs:

Insulator: Black glass filled polyester PCT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 – Insertion 2 N typ.
 – Withdrawal 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}
 Coplanarity SMD terminations: max 0.10 mm

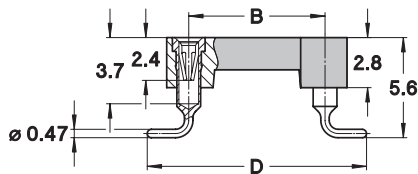


Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

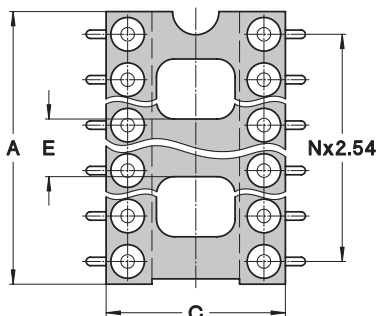
Other plating on request see page 146 for plating specs

Tape & Reel packaging: replace 161 by suffix 191 to part number
 Other pin counts please consult

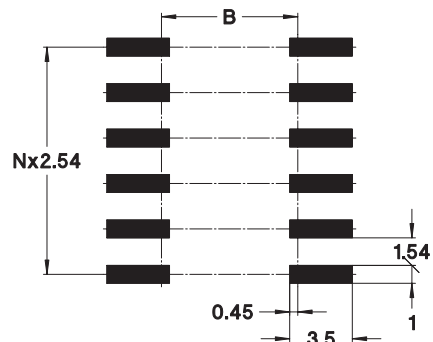


No. of poles	A	B	C	D	E	Order Codes
6	7.6	7.62	10.1	12.26	7.6	110-PP-306-41-105161
8	10.1	7.62	10.1	12.26	10.1	110-PP-308-41-105161
10	12.6	7.62	10.1	12.26	12.6	110-PP-310-41-105161
14	17.8	7.62	10.1	12.26	5.3	110-PP-314-41-105161
16	20.3	7.62	10.1	12.26	5.3	110-PP-316-41-105161
18	22.9	7.62	10.1	12.26	5.3	110-PP-318-41-105161
20	25.4	7.62	10.1	12.26	8.3	110-PP-320-41-105161
24	30.4	7.62	10.1	12.26	8.3	110-PP-324-41-105161
28	35.6	7.62	10.1	12.26	8.3	110-PP-328-41-105161
28	35.5	15.24	17.7	19.88	10.0	110-PP-628-41-105161
32	40.6	15.24	17.7	19.88	10.0	110-PP-632-41-105161
40	50.8	15.24	17.7	19.88	10.0	110-PP-640-41-105161
42	53.4	15.24	17.7	19.88	10.0	110-PP-642-41-105161

Insulator



PCB Layout



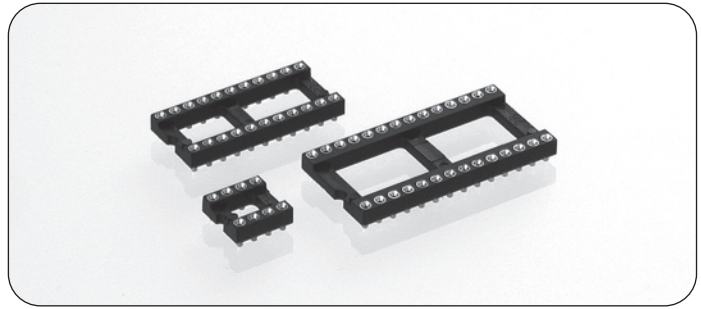
Due to technical progress, all the information provided is subject to change without prior notice



Specially designed for reflow soldering including vapor phase. With unique self-aligning floating contacts

Technical Specs:

Insulator: Black glass filled polyester PCT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 – Insertion 2 N typ.
 – Withdrawal 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}
 Coplanarity SMD terminations: max 0.10 mm

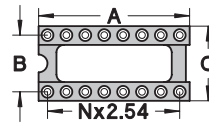
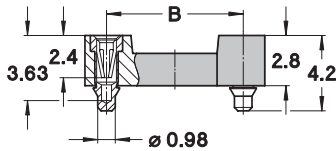


Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

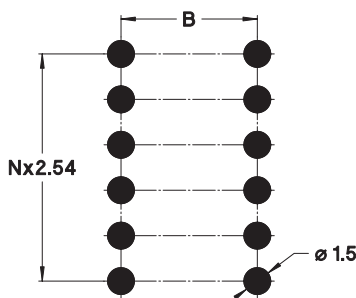
Other plating on request see page 146 for plating specs

DIL Sockets



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	114-PP-210-41-117101
4	5.0	7.62	10.1	Fig. 2	114-PP-304-41-117101
6	7.6	7.62	10.1	Fig. 3	114-PP-306-41-117101
8	10.1	7.62	10.1	Fig. 4	114-PP-308-41-117101
10	12.6	7.62	10.1	Fig. 5	114-PP-310-41-117101
12	15.2	7.62	10.1	Fig. 6	114-PP-312-41-117101
14	17.7	7.62	10.1	Fig. 7	114-PP-314-41-117101
16	20.3	7.62	10.1	Fig. 8	114-PP-316-41-117101
18	22.8	7.62	10.1	Fig. 9	114-PP-318-41-117101
20	25.3	7.62	10.1	Fig. 10	114-PP-320-41-117101
22	27.8	7.62	10.1	Fig. 11	114-PP-322-41-117101
24	30.4	7.62	10.1	Fig. 12	114-PP-324-41-117101
28	35.5	7.62	10.1	Fig. 13	114-PP-328-41-117101
20	25.4	10.16	12.6	Fig. 14	114-PP-420-41-117101
22	27.8	10.16	12.6	Fig. 15	114-PP-422-41-117101
24	30.4	10.16	12.6	Fig. 16	114-PP-424-41-117101
28	35.5	10.16	12.6	Fig. 17	114-PP-428-41-117101
32	40.6	10.16	12.6	Fig. 18	114-PP-432-41-117101
24	30.5	15.24	17.7	Fig. 20	114-PP-624-41-117101
28	35.5	15.24	17.7	Fig. 21	114-PP-628-41-117101
32	40.6	15.24	17.7	Fig. 22	114-PP-632-41-117101
36	45.7	15.24	17.7	Fig. 23	114-PP-636-41-117101
40	50.8	15.24	17.7	Fig. 24	114-PP-640-41-117101
42	53.3	15.24	17.7	Fig. 25	114-PP-642-41-117101
48	60.9	15.24	17.7	Fig. 26	114-PP-648-41-117101

PCB Layout



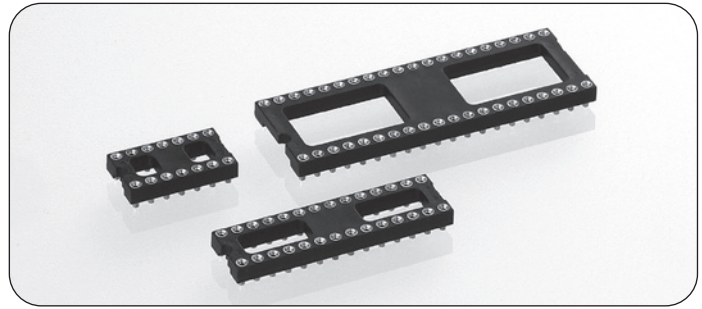
Due to technical progress, all the information provided is subject to change without prior notice



Specially designed for reflow soldering including vapor phase. With unique self-aligning floating contacts

Technical Specs:

Insulator:	Black glass filled polyester PCT-GF30-FR
Flammability:	UL 94V-O
Sleeve:	Brass CuZn36Pb3 (C36000)
Contact clip (4 finger):	Beryllium copper (C17200)
Accepted pin Ø:	0.40 to 0.56 mm
Forces:	(polished steel gauge Ø 0.43 mm)
– Insertion	2 N typ.
– Withdrawal	1 N typ.
Mechanical life:	min 100 cycles
Rated current:	1 A
Contact resistance:	max 10 mΩ
Dielectric strength:	min 1000 V _{RMS}
Coplanarity SMD terminations:	max 0.10 mm

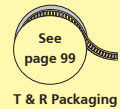
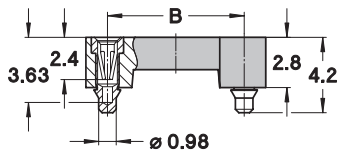


Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

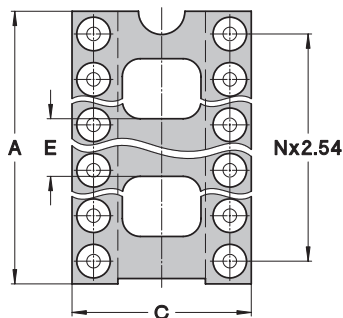
Other plating on request see page 146 for plating specs

Tape & Reel packaging: replace 161 by suffix 191 to part number
Other pin counts please consult

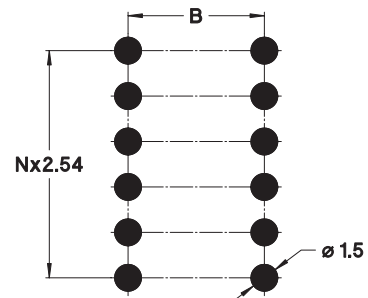


No. of poles	A	B	C	E	Order Codes
6	7.6	7.62	10.1	7.6	114-PP-306-41-134161
8	10.1	7.62	10.1	10.1	114-PP-308-41-134161
10	12.6	7.62	10.1	12.6	114-PP-310-41-134161
14	17.8	7.62	10.1	5.3	114-PP-314-41-134161
16	20.3	7.62	10.1	5.3	114-PP-316-41-134161
18	22.9	7.62	10.1	5.3	114-PP-318-41-134161
20	25.4	7.62	10.1	8.3	114-PP-320-41-134161
24	30.4	7.62	10.1	8.3	114-PP-324-41-134161
28	35.6	7.62	10.1	8.3	114-PP-328-41-134161
28	35.5	15.24	17.7	10.0	114-PP-628-41-134161
32	40.6	15.24	17.7	10.0	114-PP-632-41-134161
40	50.8	15.24	17.7	10.0	114-PP-640-41-134161
42	53.4	15.24	17.7	10.0	114-PP-642-41-134161

Insulator



PCB Layout



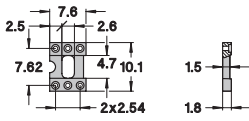
Due to technical progress, all the information provided is subject to change without prior notice



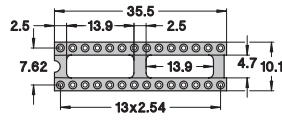
Dual-in-line sockets

Insulator bodies
Ultralow, open frame

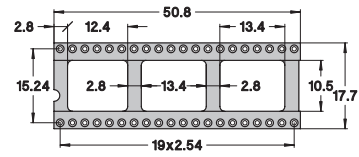
306
Fig. 1



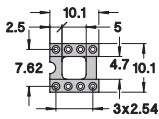
328
Fig. 10



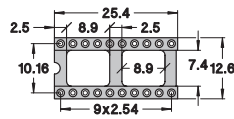
640
Fig. 19



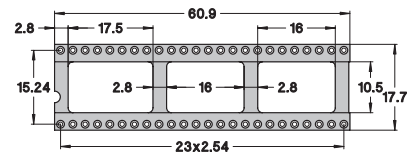
308
Fig. 2



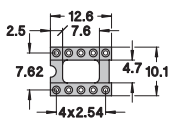
420
Fig. 11



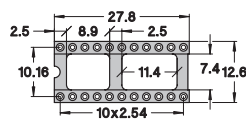
648
Fig. 20



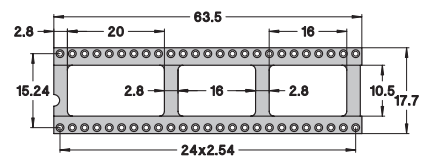
310
Fig. 3



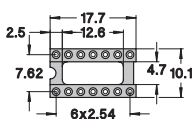
422
Fig. 12



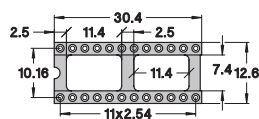
650
Fig. 21



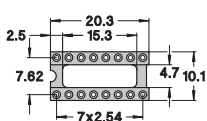
314
Fig. 4



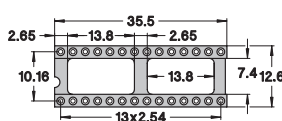
424
Fig. 13



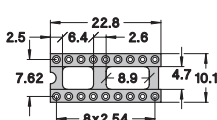
316
Fig. 5



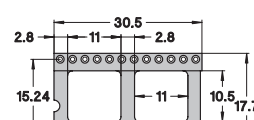
428
Fig. 14



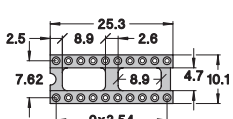
318
Fig. 6



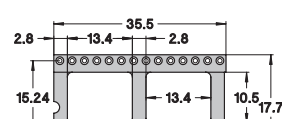
624
Fig. 15



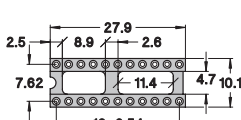
320
Fig. 7



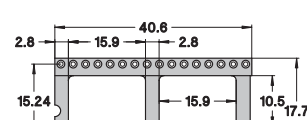
628
Fig. 16



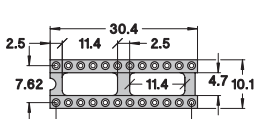
322
Fig. 8



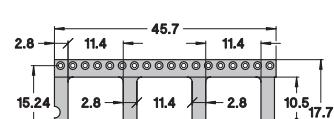
632
Fig. 17



324
Fig. 9



636
Fig. 18

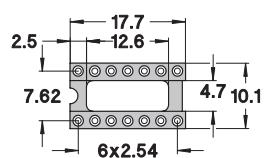


Ordering information

Example:

115-PP-**314**-41-003001 (Order Code)

314
Fig. 4



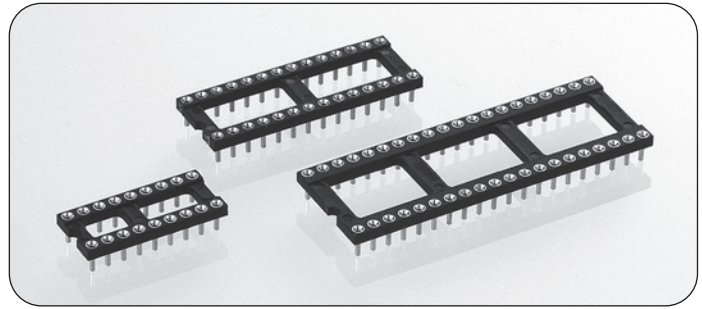
Due to technical progress, all the information provided is subject to change without prior notice



"Ultralow" sockets have specially designed contacts for reduced socket above PCB

Technical Specs:

Insulator: Black glass filled polyester PBT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.52 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 - Insertion: 3 N typ.
 - Withdrawal: 1.5 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}



Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

Other plating on request see page 146 for plating specs

Ultralow socket

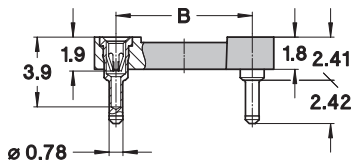


Fig. 1

Option: very low version

Very low version (Fig. 2) is optional; change suffix 003001 to 001001. Insulator body dimensions see page 100 Fig. 1 to 31. Same number of poles as standard series 110.

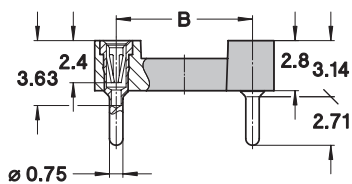
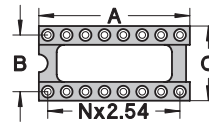


Fig. 2



No. of poles	A	B	C	See page 108	Order Codes
6	7.6	7.62	10.1	Fig. 1	115-PP-306-41-003001
8	10.1	7.62	10.1	Fig. 2	115-PP-308-41-003001
10	12.6	7.62	10.1	Fig. 3	115-PP-310-41-003001
14	17.7	7.62	10.1	Fig. 4	115-PP-314-41-003001
16	20.3	7.62	10.1	Fig. 5	115-PP-316-41-003001
18	22.8	7.62	10.1	Fig. 6	115-PP-318-41-003001
20	25.3	7.62	10.1	Fig. 7	115-PP-320-41-003001
22	27.9	7.62	10.1	Fig. 8	115-PP-322-41-003001
24	30.4	7.62	10.1	Fig. 9	115-PP-324-41-003001
28	35.5	7.62	10.1	Fig. 10	115-PP-328-41-003001
20	25.4	10.16	12.6	Fig. 11	115-PP-420-41-003001
22	27.8	10.16	12.6	Fig. 12	115-PP-422-41-003001
24	30.4	10.16	12.6	Fig. 13	115-PP-424-41-003001
28	35.5	10.16	12.6	Fig. 14	115-PP-428-41-003001
24	30.5	15.24	17.7	Fig. 15	115-PP-624-41-003001
28	35.5	15.24	17.7	Fig. 16	115-PP-628-41-003001
32	40.6	15.24	17.7	Fig. 17	115-PP-632-41-003001
36	45.7	15.24	17.7	Fig. 18	115-PP-636-41-003001
40	50.8	15.24	17.7	Fig. 19	115-PP-640-41-003001
48	60.9	15.24	17.7	Fig. 20	115-PP-648-41-003001
50	63.5	15.24	17.7	Fig. 21	115-PP-650-41-003001

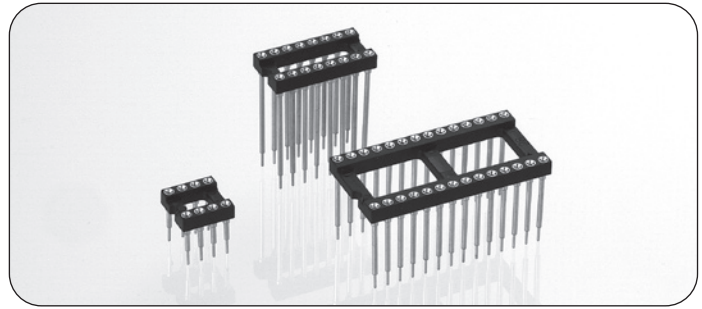
Due to technical progress, all the information provided is subject to change without prior notice



For mechanical and electrical interconnection, PCB stacking or elevated positioning of display modules

Technical Specs:

Insulator: Black glass filled polyester PBT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 – Insertion: 2 N typ.
 – Withdrawal: 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}

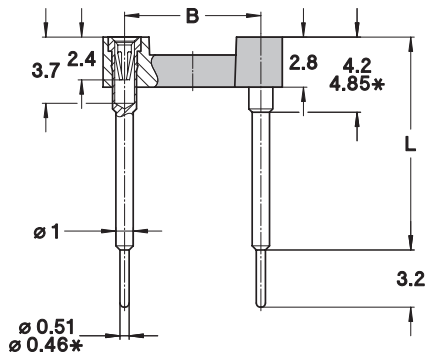


Ordering information

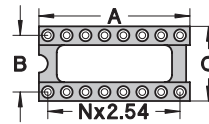
PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

Other plating on request see page 146 for plating specs

For complete part number replace **XXX** with the code given below left for the required contact length **L**



* Only for contact with L=Ø



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	116-PP-210-41-XXX001
4	5.0	7.62	10.1	Fig. 2	116-PP-304-41-XXX001
6	7.6	7.62	10.1	Fig. 3	116-PP-306-41-XXX001
8	10.1	7.62	10.1	Fig. 4	116-PP-308-41-XXX001
10	12.6	7.62	10.1	Fig. 5	116-PP-310-41-XXX001
12	15.2	7.62	10.1	Fig. 6	116-PP-312-41-XXX001
14	17.7	7.62	10.1	Fig. 7	116-PP-314-41-XXX001
16	20.3	7.62	10.1	Fig. 8	116-PP-316-41-XXX001
18	22.8	7.62	10.1	Fig. 9	116-PP-318-41-XXX001
20	25.3	7.62	10.1	Fig. 10	116-PP-320-41-XXX001
22	27.8	7.62	10.1	Fig. 11	116-PP-322-41-XXX001
24	30.4	7.62	10.1	Fig. 12	116-PP-324-41-XXX001
28	35.5	7.62	10.1	Fig. 13	116-PP-328-41-XXX001
20	25.4	10.16	12.6	Fig. 14	116-PP-420-41-XXX001
22	27.8	10.16	12.6	Fig. 15	116-PP-422-41-XXX001
24	30.4	10.16	12.6	Fig. 16	116-PP-424-41-XXX001
28	35.5	10.16	12.6	Fig. 17	116-PP-428-41-XXX001
32	40.6	10.16	12.6	Fig. 18	116-PP-432-41-XXX001
10	12.7	15.24	17.7	Fig. 19	116-PP-610-41-XXX001
24	30.5	15.24	17.7	Fig. 20	116-PP-624-41-XXX001
28	35.5	15.24	17.7	Fig. 21	116-PP-628-41-XXX001
32	40.6	15.24	17.7	Fig. 22	116-PP-632-41-XXX001
36	45.7	15.24	17.7	Fig. 23	116-PP-636-41-XXX001
40	50.8	15.24	17.7	Fig. 24	116-PP-640-41-XXX001
42	53.3	15.24	17.7	Fig. 25	116-PP-642-41-XXX001
48	60.9	15.24	17.7	Fig. 26	116-PP-648-41-XXX001
50	63.5	15.24	17.7	Fig. 27	116-PP-650-41-XXX001
52	66.0	15.24	17.7	Fig. 28	116-PP-652-41-XXX001
50	63.5	22.86	25.3	Fig. 29	116-PP-950-41-XXX001
52	66.0	22.86	25.3	Fig. 30	116-PP-952-41-XXX001
64	81.2	22.86	25.3	Fig. 31	116-PP-964-41-XXX001

Available contact length

Contact length L	XXX code
6 mm	006
7 mm	018
8 mm	003
9 mm	012
10 mm	007
11 mm	002
12 mm	008
13 mm	009
15 mm	001
18 mm	011
22 mm	004
33 mm	013

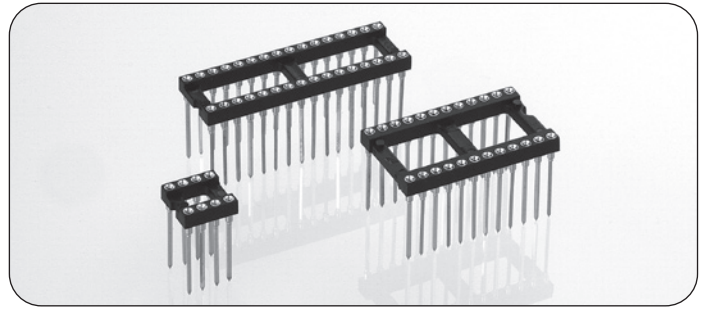
Due to technical progress, all the information provided is subject to change without prior notice



Solderless wire-wrap terminals are firmly fitted in the insulator body to withstand torque of wrapping tool

Technical Specs:

Insulator: Black glass filled polyester PBT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 - Insertion 2 N typ.
 - Withdrawal 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V RMS

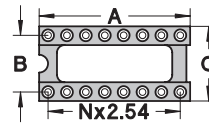
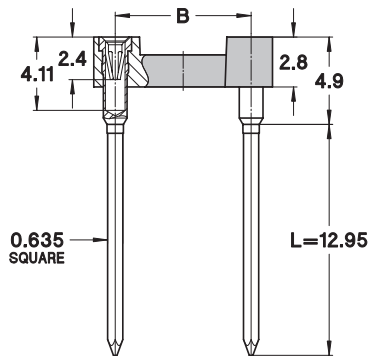


Ordering information

PP Plating code	Sleeve	Clip
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm
99	Tin	Tin

Other plating on request see page 146 for plating specs

Standard Wire-wrap socket with contact length for 3-level wrapping Series 123-...



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	123-PP-210-41-001001
4	5.0	7.62	10.1	Fig. 2	123-PP-304-41-001001
6	7.6	7.62	10.1	Fig. 3	123-PP-306-41-001001
8	10.1	7.62	10.1	Fig. 4	123-PP-308-41-001001
10	12.6	7.62	10.1	Fig. 5	123-PP-310-41-001001
12	15.2	7.62	10.1	Fig. 6	123-PP-312-41-001001
14	17.7	7.62	10.1	Fig. 7	123-PP-314-41-001001
16	20.3	7.62	10.1	Fig. 8	123-PP-316-41-001001
18	22.8	7.62	10.1	Fig. 9	123-PP-318-41-001001
20	25.3	7.62	10.1	Fig. 10	123-PP-320-41-001001
22	27.8	7.62	10.1	Fig. 11	123-PP-322-41-001001
24	30.4	7.62	10.1	Fig. 12	123-PP-324-41-001001
28	35.5	7.62	10.1	Fig. 13	123-PP-328-41-001001
20	25.4	10.16	12.6	Fig. 14	123-PP-420-41-001001
22	27.8	10.16	12.6	Fig. 15	123-PP-422-41-001001
24	30.4	10.16	12.6	Fig. 16	123-PP-424-41-001001
28	35.5	10.16	12.6	Fig. 17	123-PP-428-41-001001
32	40.6	10.16	12.6	Fig. 18	123-PP-432-41-001001
10	12.7	15.24	17.7	Fig. 19	123-PP-610-41-001001
24	30.5	15.24	17.7	Fig. 20	123-PP-624-41-001001
28	35.5	15.24	17.7	Fig. 21	123-PP-628-41-001001
32	40.6	15.24	17.7	Fig. 22	123-PP-632-41-001001
36	45.7	15.24	17.7	Fig. 23	123-PP-636-41-001001
40	50.8	15.24	17.7	Fig. 24	123-PP-640-41-001001
42	53.3	15.24	17.7	Fig. 25	123-PP-642-41-001001
48	60.9	15.24	17.7	Fig. 26	123-PP-648-41-001001
50	63.5	15.24	17.7	Fig. 27	123-PP-650-41-001001
52	66.0	15.24	17.7	Fig. 28	123-PP-652-41-001001
50	63.5	22.86	25.3	Fig. 29	123-PP-950-41-001001
52	66.0	22.86	25.3	Fig. 30	123-PP-952-41-001001
64	81.2	22.86	25.3	Fig. 31	123-PP-964-41-001001

Option:

Other lengths for 1-level, 2-level or 4-level wrapping available on request

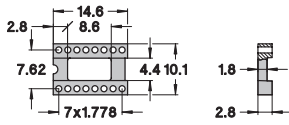
Replace **123-...** in order code by

- **121** for 1-level L = 6.6 mm
- **122** for 2-level L = 9.4 mm
- **124** for 4-level L = 16 mm

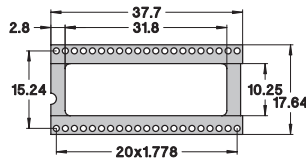
Due to technical progress, all the information provided is subject to change without prior notice



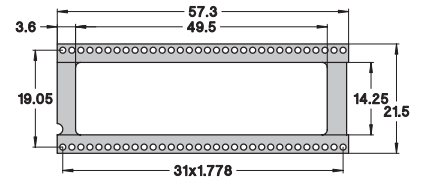
316
Fig. 1



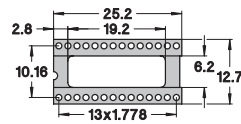
642
Fig. 10



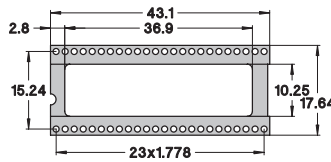
764
Fig. 16



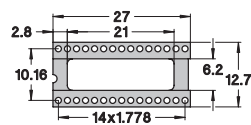
428
Fig. 2



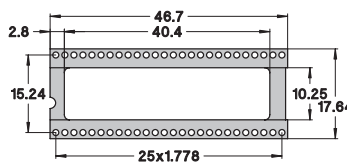
648
Fig. 11



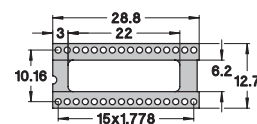
430
Fig. 3



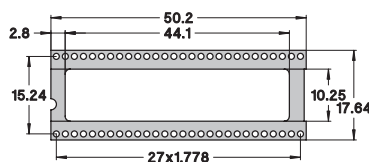
652
Fig. 12



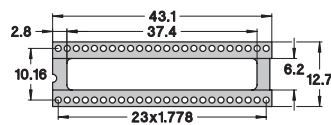
432
Fig. 4



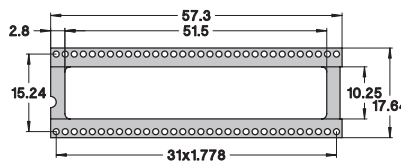
656
Fig. 13



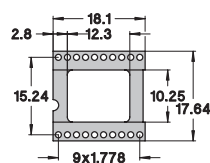
448
Fig. 5



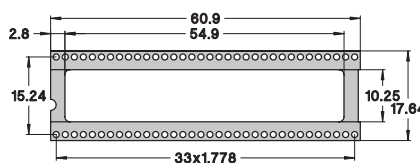
664
Fig. 14



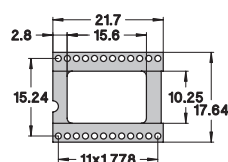
620
Fig. 6



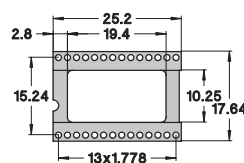
668
Fig. 15



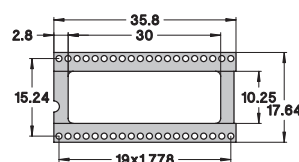
624
Fig. 7



628
Fig. 8



640
Fig. 9



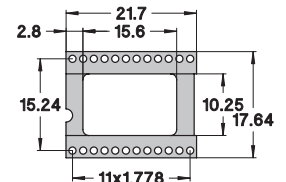
Ordering information

Example:

117-PP-**624**-41-005101 (Order Code)

Row spacing
Number of pins

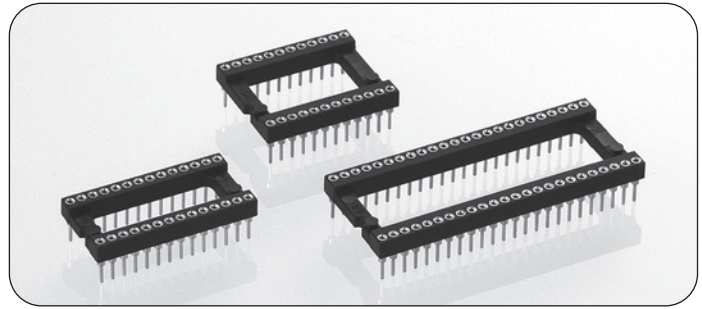
624
Fig. 7



High density DIL sockets for devices featuring 0.07" (1.778 mm) lead spacing

Technical Specs:

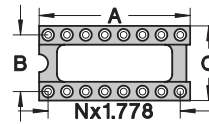
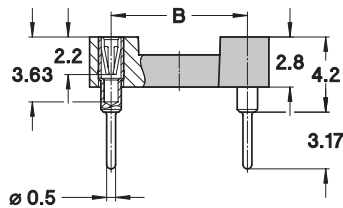
Insulator: Black glass filled polyester PCT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 - Insertion: 2 N typ.
 - Withdrawal: 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}



Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm
99	Tin	Tin

Other plating on request see page 146 for plating specs



No. of poles	A	B	C	See page 112	Order Codes
16	14.6	7.62	10.1	Fig. 1	117-PP-316-41-005101
28	25.2	10.16	12.7	Fig. 2	117-PP-428-41-005101
30	27.0	10.16	12.7	Fig. 3	117-PP-430-41-005101
32	28.8	10.16	12.7	Fig. 4	117-PP-432-41-005101
48	43.1	10.16	12.7	Fig. 5	117-PP-448-41-005101
20	18.1	15.24	17.64	Fig. 6	117-PP-620-41-005101
24	21.7	15.24	17.64	Fig. 7	117-PP-624-41-005101
28	25.2	15.24	17.64	Fig. 8	117-PP-628-41-005101
40	35.8	15.24	17.64	Fig. 9	117-PP-640-41-005101
42	37.7	15.24	17.64	Fig. 10	117-PP-642-41-005101
48	43.1	15.24	17.64	Fig. 11	117-PP-648-41-005101
52	46.7	15.24	17.64	Fig. 12	117-PP-652-41-005101
56	50.2	15.24	17.64	Fig. 13	117-PP-656-41-005101
64	57.3	15.24	17.64	Fig. 14	117-PP-664-41-005101
68	60.9	15.24	17.64	Fig. 15	117-PP-668-41-005101
64*	57.3	19.05	21.5	Fig. 16	117-PP-764-41-005101

Options available on request:

- * Socket 117-PP-764-41-005101 available with closed frame insulator PN 217-PP-764-41-005101
- Surface mount Shrinkdip socket with gull wing terminations Series 117-...-41-105101
- Shrinkdip pin header, solder tail Series 150-...-00-012101

Please consult

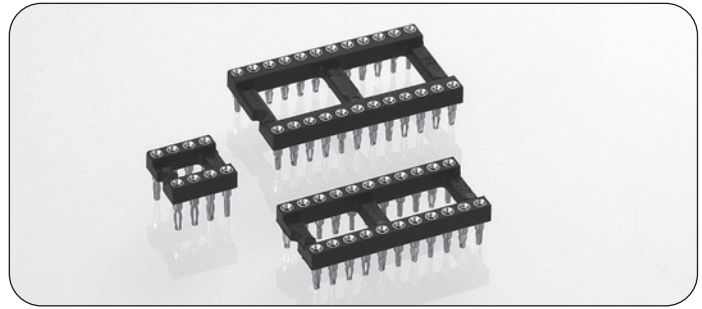
Due to technical progress, all the information provided is subject to change without prior notice



DIL Sockets with compliant press-fit pin for solderless mount in PCB plated through holes

Technical Specs:

Insulator:	Black glass filled polyester PBT-GF30-FR
Flammability:	UL 94V-0
Sleeve:	Bronze CuSn4Pb4Zn4 (C54400)
Contact clip (4 finger):	Beryllium copper (C17200)
Accepted pin Ø:	0.40 to 0.56 mm
Forces:	(polished steel gauge Ø 0.43 mm)
– Insertion	2 N typ.
– Withdrawal	1 N typ.
Mechanical life:	min 500 cycles
Rated current:	1 A
Contact resistance:	max 10 mΩ
Dielectric strength:	min 1000 V _{RMS}
PCB hole Ø:	1 +0.09/-0.06 mm finished (1.15 ±0.025 mm drill)

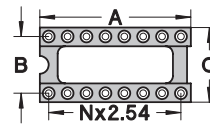
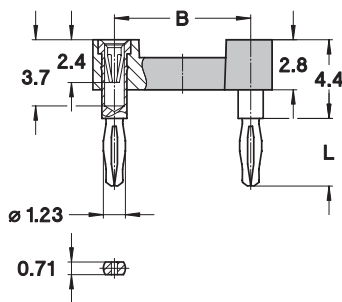


Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm
99	Tin	Tin

Other plating on request see page 146 for plating specs

For complete part number replace **XXX** with the code given below left for the required contact length **L**



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	146-PP-210-41-XXX001
4	5.0	7.62	10.1	Fig. 2	146-PP-304-41-XXX001
6	7.6	7.62	10.1	Fig. 3	146-PP-306-41-XXX001
8	10.1	7.62	10.1	Fig. 4	146-PP-308-41-XXX001
10	12.6	7.62	10.1	Fig. 5	146-PP-310-41-XXX001
12	15.2	7.62	10.1	Fig. 6	146-PP-312-41-XXX001
14	17.7	7.62	10.1	Fig. 7	146-PP-314-41-XXX001
16	20.3	7.62	10.1	Fig. 8	146-PP-316-41-XXX001
18	22.8	7.62	10.1	Fig. 9	146-PP-318-41-XXX001
20	25.3	7.62	10.1	Fig. 10	146-PP-320-41-XXX001
22	27.8	7.62	10.1	Fig. 11	146-PP-322-41-XXX001
24	30.4	7.62	10.1	Fig. 12	146-PP-324-41-XXX001
28	35.5	7.62	10.1	Fig. 13	146-PP-328-41-XXX001
20	25.4	10.16	12.6	Fig. 14	146-PP-420-41-XXX001
22	27.8	10.16	12.6	Fig. 15	146-PP-422-41-XXX001
24	30.4	10.16	12.6	Fig. 16	146-PP-424-41-XXX001
28	35.5	10.16	12.6	Fig. 17	146-PP-428-41-XXX001
32	40.6	10.16	12.6	Fig. 18	146-PP-432-41-XXX001
24	30.5	15.24	17.7	Fig. 20	146-PP-624-41-XXX001
28	35.5	15.24	17.7	Fig. 21	146-PP-628-41-XXX001
32	40.6	15.24	17.7	Fig. 22	146-PP-632-41-XXX001
36	45.7	15.24	17.7	Fig. 23	146-PP-636-41-XXX001
40	50.8	15.24	17.7	Fig. 24	146-PP-640-41-XXX001

Available contact length

Contact length L	PCB thickness	XXX code
2.8	1.5-2.0	036
3.8	2.1-3.2	035

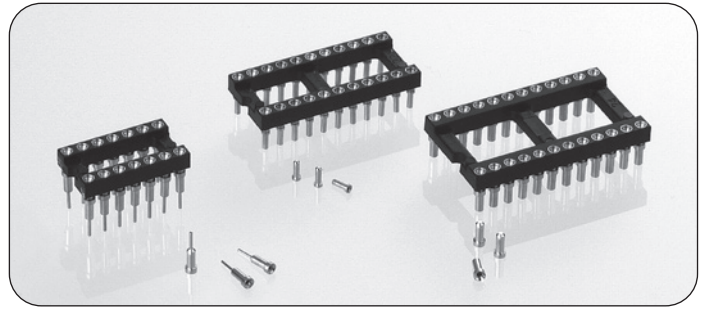
Due to technical progress, all the information provided is subject to change without prior notice



Easy mounting due to the disposable plastic carrier. No solder or flux wicking problems

Technical Specs:

Insulator: Black glass filled polyester PBT-GF30-FR
 Flammability: UL 94V-0
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 (3 finger Series 614...012001)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 – Insertion 2 N typ. (1.0 N typ. 614...012001)
 – Withdrawal 1 N typ. (0.4 N typ. 614...012001)
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}

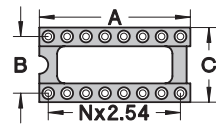
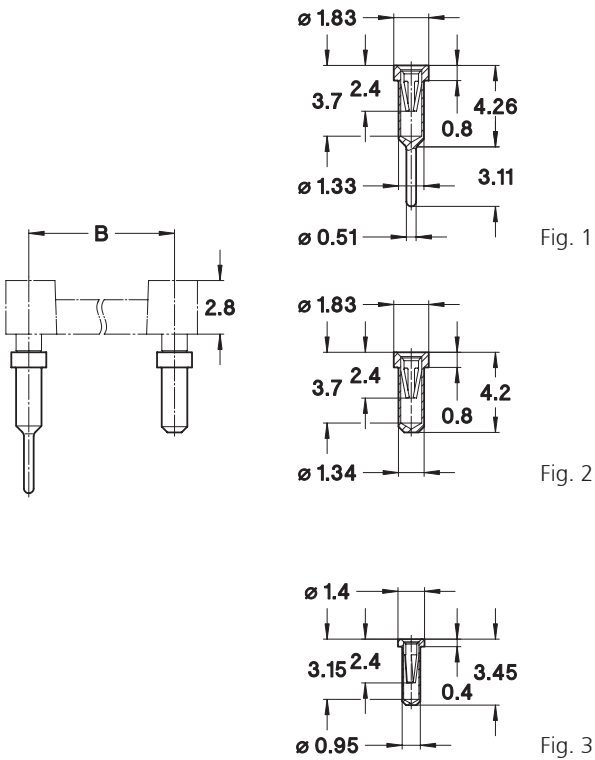


Ordering information

PP Plating code	Sleeve	Clip
91	Tin	Gold 0.25 µm

Other plating on request see page 146 for plating specs

For complete part number replace X...-XX-XXX with the code given below left



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	61X-PP-210-XX-XXX001
4	5.0	7.62	10.1	Fig. 2	61X-PP-304-XX-XXX001
6	7.6	7.62	10.1	Fig. 3	61X-PP-306-XX-XXX001
8	10.1	7.62	10.1	Fig. 4	61X-PP-308-XX-XXX001
10	12.6	7.62	10.1	Fig. 5	61X-PP-310-XX-XXX001
12	15.2	7.62	10.1	Fig. 6	61X-PP-312-XX-XXX001
14	17.7	7.62	10.1	Fig. 7	61X-PP-314-XX-XXX001
16	20.3	7.62	10.1	Fig. 8	61X-PP-316-XX-XXX001
18	22.8	7.62	10.1	Fig. 9	61X-PP-318-XX-XXX001
20	25.3	7.62	10.1	Fig. 10	61X-PP-320-XX-XXX001
22	27.8	7.62	10.1	Fig. 11	61X-PP-322-XX-XXX001
24	30.4	7.62	10.1	Fig. 12	61X-PP-324-XX-XXX001
28	35.5	7.62	10.1	Fig. 13	61X-PP-328-XX-XXX001
20	25.4	10.16	12.6	Fig. 14	61X-PP-420-XX-XXX001
22	27.8	10.16	12.6	Fig. 15	61X-PP-422-XX-XXX001
24	30.4	10.16	12.6	Fig. 16	61X-PP-424-XX-XXX001
28	35.5	10.16	12.6	Fig. 17	61X-PP-428-XX-XXX001
32	40.6	10.16	12.6	Fig. 18	61X-PP-432-XX-XXX001
10	12.7	15.24	17.7	Fig. 19	61X-PP-610-XX-XXX001
24	30.5	15.24	17.7	Fig. 20	61X-PP-624-XX-XXX001
28	35.5	15.24	17.7	Fig. 21	61X-PP-628-XX-XXX001
32	40.6	15.24	17.7	Fig. 22	61X-PP-632-XX-XXX001
36	45.7	15.24	17.7	Fig. 23	61X-PP-636-XX-XXX001
40	50.8	15.24	17.7	Fig. 24	61X-PP-640-XX-XXX001
42	53.3	15.24	17.7	Fig. 25	61X-PP-642-XX-XXX001
48	60.9	15.24	17.7	Fig. 26	61X-PP-648-XX-XXX001
50	63.5	15.24	17.7	Fig. 27	61X-PP-650-XX-XXX001
52	66.0	15.24	17.7	Fig. 28	61X-PP-652-XX-XXX001
50	63.5	22.86	25.3	Fig. 29	61X-PP-950-XX-XXX001
52	66.0	22.86	25.3	Fig. 30	61X-PP-952-XX-XXX001
64	81.2	22.86	25.3	Fig. 31	61X-PP-964-XX-XXX001

Available versions

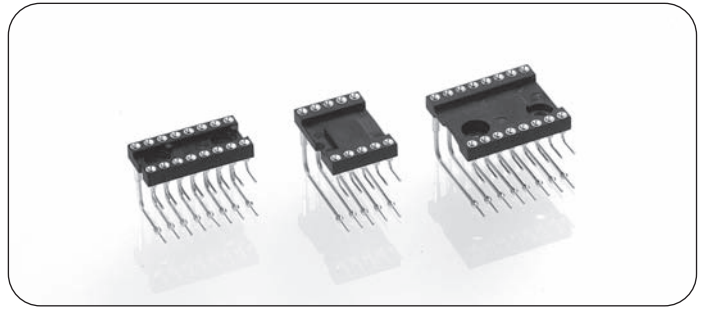
- Standard carrier **612...-41-001001**
see Fig. 1
- Low profile **614...-41-001001**
see Fig. 2 for PCB hole Ø 1.4-1.8 mm
- Low profile, ultra thin **614...-31-012001**
see Fig. 3 for PCB hole Ø 1.0-1.3 mm

Due to technical progress, all the information provided is subject to change without prior notice

Right angle DIL Sockets for components to be mounted perpendicularly to the PCB such as displays

Technical Specs:

Insulator: Black glass filled polyester PBT-GF30-FR
 Flammability: UL 94V-O
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces:
 - Insertion (polished steel gauge Ø 0.43 mm)
 - Withdrawal 2 N typ.
 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}



Ordering information

PP Plating code	Sleeve	Clip
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

Other plating on request see page 146 for plating specs

For complete part number replace **XX** with the code given below

DIL Sockets

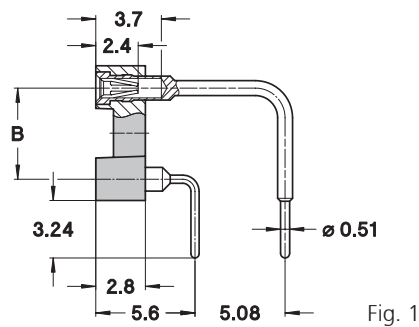


Fig. 1

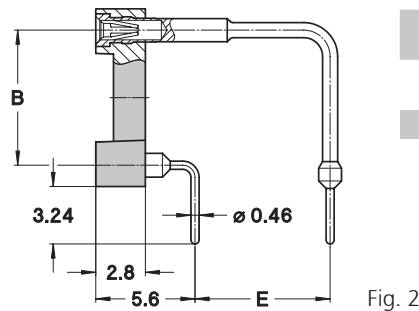


Fig. 2

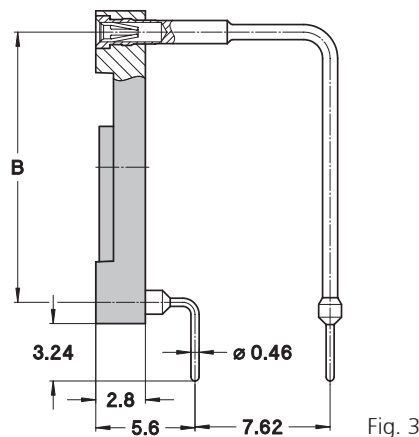
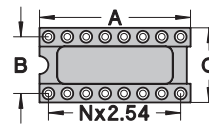


Fig. 3

Row spacing E

E	Order code XX
7.62	299... 10 -001001
2.54	299... 11 -001001



No. of poles	A	B	C	See	Order Codes
10	12.6	5.08	7.6	Fig. 1	299-PP-210-10-001001
6	7.6	7.62	10.1	Fig. 2	299-PP-306-XX-001001
8	10.1	7.62	10.1	Fig. 2	299-PP-308-XX-001001
10	12.6	7.62	10.1	Fig. 2	299-PP-310-XX-001001
12	15.2	7.62	10.1	Fig. 2	299-PP-312-XX-001001
14	17.7	7.62	10.1	Fig. 2	299-PP-314-XX-001001
16	20.3	7.62	10.1	Fig. 2	299-PP-316-XX-001001
18	22.8	7.62	10.1	Fig. 2	299-PP-318-XX-001001
20	25.3	7.62	10.1	Fig. 2	299-PP-320-XX-001001
22	27.8	7.62	10.1	Fig. 2	299-PP-322-XX-001001
24	30.4	7.62	10.1	Fig. 2	299-PP-324-XX-001001
8	10.1	15.24	17.7	Fig. 3	299-PP-608-10-002001
10	12.6	15.24	17.7	Fig. 3	299-PP-610-10-002001
12	15.2	15.24	10.1	Fig. 3	299-PP-612-10-002001
14	17.7	15.24	10.1	Fig. 3	299-PP-614-10-002001
16	20.1	15.24	17.7	Fig. 3	299-PP-616-10-002001
18	22.8	15.24	17.7	Fig. 3	299-PP-618-10-002001
20	25.3	15.24	17.7	Fig. 3	299-PP-620-10-002001
22	27.8	15.24	17.7	Fig. 3	299-PP-622-10-002001
24	30.4	15.24	17.7	Fig. 3	299-PP-624-10-002001
26	33.0	15.24	17.7	Fig. 3	299-PP-626-10-002001
28	35.5	15.24	17.7	Fig. 3	299-PP-628-10-002001
30	38.0	15.24	17.7	Fig. 3	299-PP-630-10-002001
32	40.6	15.24	17.7	Fig. 3	299-PP-632-10-002001
36	45.7	15.24	17.7	Fig. 3	299-PP-636-10-002001
40	50.6	15.24	17.7	Fig. 3	299-PP-640-10-002001
48	61.0	15.24	17.7	Fig. 3	299-PP-648-10-002001

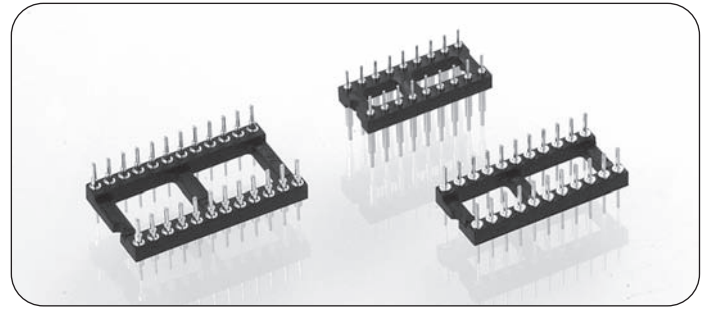
Due to technical progress, all the information provided is subject to change without prior notice



DIL pin headers with male contacts pluggable into standard female socket contacts

Technical Specs:

Insulator:	Black glass filled polyester PBT-GF30-FR
Flammability:	UL 94V-0
Contact:	Brass CuZn36Pb3 (C36000)
Connecting pin Ø:	0.47 mm
Mechanical life:	min 100 cycles
Rated current:	1 A
Dielectric strength:	min 1000 V _{RMS}
Coplanarity SMD terminations:	max 0.10 mm



Ordering information

PP Plating code	Termination	Connecting pin
10	Gold 0.25 µm	Gold 0.25 µm
90	Tin	Tin

Other plating on request see page 146 for plating specs

For complete part number replace X-...-XXX with the code given below left

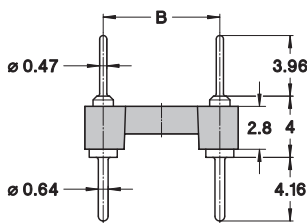


Fig. 1

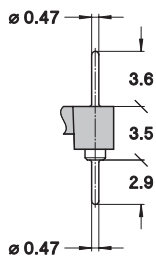


Fig. 2

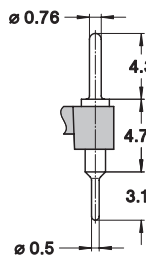


Fig. 3

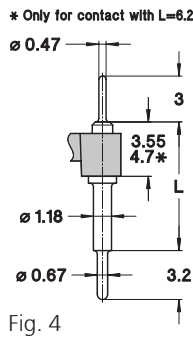
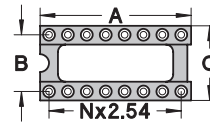


Fig. 4



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	15X-PP-210-00-XXX001
4	5.0	7.62	10.1	Fig. 2	15X-PP-304-00-XXX001
6	7.6	7.62	10.1	Fig. 3	15X-PP-306-00-XXX001
8	10.1	7.62	10.1	Fig. 4	15X-PP-308-00-XXX001
10	12.6	7.62	10.1	Fig. 5	15X-PP-310-00-XXX001
12	15.2	7.62	10.1	Fig. 6	15X-PP-312-00-XXX001
14	17.7	7.62	10.1	Fig. 7	15X-PP-314-00-XXX001
16	20.3	7.62	10.1	Fig. 8	15X-PP-316-00-XXX001
18	22.8	7.62	10.1	Fig. 9	15X-PP-318-00-XXX001
20	25.3	7.62	10.1	Fig. 10	15X-PP-320-00-XXX001
22	27.8	7.62	10.1	Fig. 11	15X-PP-322-00-XXX001
24	30.4	7.62	10.1	Fig. 12	15X-PP-324-00-XXX001
28	35.5	7.62	10.1	Fig. 13	15X-PP-328-00-XXX001
20	25.4	10.16	12.6	Fig. 14	15X-PP-420-00-XXX001
22	27.8	10.16	12.6	Fig. 15	15X-PP-422-00-XXX001
24	30.4	10.16	12.6	Fig. 16	15X-PP-424-00-XXX001
28	35.5	10.16	12.6	Fig. 17	15X-PP-428-00-XXX001
32	40.6	10.16	12.6	Fig. 18	15X-PP-432-00-XXX001
10	12.7	15.24	17.7	Fig. 19	15X-PP-610-00-XXX001
24	30.5	15.24	17.7	Fig. 20	15X-PP-624-00-XXX001
28	35.5	15.24	17.7	Fig. 21	15X-PP-628-00-XXX001
32	40.6	15.24	17.7	Fig. 22	15X-PP-632-00-XXX001
36	45.7	15.24	17.7	Fig. 23	15X-PP-636-00-XXX001
40	50.8	15.24	17.7	Fig. 24	15X-PP-640-00-XXX001
42	53.3	15.24	17.7	Fig. 25	15X-PP-642-00-XXX001
48	60.9	15.24	17.7	Fig. 26	15X-PP-648-00-XXX001
50	63.5	15.24	17.7	Fig. 27	15X-PP-650-00-XXX001
52	66.0	15.24	17.7	Fig. 28	15X-PP-652-00-XXX001
50	63.5	22.86	25.3	Fig. 29	15X-PP-950-00-XXX001
52	66.0	22.86	25.3	Fig. 30	15X-PP-952-00-XXX001
64	81.2	22.86	25.3	Fig. 31	15X-PP-964-00-XXX001

Available versions

Standard header

150-...-001001	see Fig. 1
150-...-006001	see Fig. 2
150-...-018001	see Fig. 3

Interconnect header

151-...-XXX001	see Fig. 4
----------------	------------

Contact length L	XXX code
6.2 mm	003
8.4 mm	004
15.3 mm	005
21.2 mm	016
27.4 mm	017

Other lengths on request

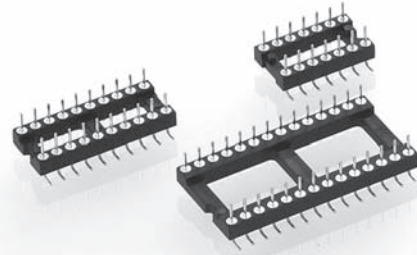
Due to technical progress, all the information provided is subject to change without prior notice



Specially designed for reflow soldering including vapor phase. With male contacts pluggable into standard socket contacts and gull wing terminations

Technical Specs:

Insulator: Black glass filled polyester PCT-GF30-FR
 Flammability: UL 94V-O
 Contact: Brass CuZn36Pb3 (C36000)
 Connecting pin Ø: 0.47 mm
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Dielectric strength: min 1000 V_{RMS}
 Coplanarity SMD terminations: max 0.10 mm

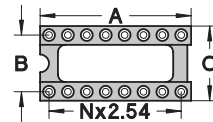
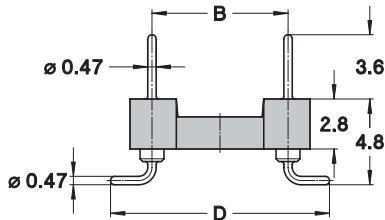


Ordering information

PP Plating code	Termination	Connecting pin
10	Gold 0.25 µm	Gold 0.25 µm
90	Tin	Tin
Z1	Tin	Gold 0.25 µm

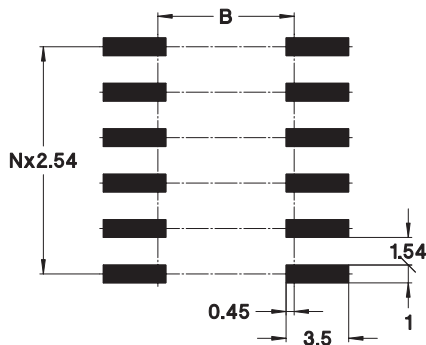
Other plating on request see page 146 for plating specs

DIL Sockets



No. of poles	A	B	C	D	See page 100	Order Codes
10	12.6	5.08	7.6	9.76	Fig. 1	150-PP-210-00-106101
4	5.0	7.62	10.1	12.3	Fig. 2	150-PP-304-00-106101
6	7.6	7.62	10.1	12.3	Fig. 3	150-PP-306-00-106101
8	10.1	7.62	10.1	12.3	Fig. 4	150-PP-308-00-106101
10	12.6	7.62	10.1	12.3	Fig. 5	150-PP-310-00-106101
12	15.2	7.62	10.1	12.3	Fig. 6	150-PP-312-00-106101
14	17.7	7.62	10.1	12.3	Fig. 7	150-PP-314-00-106101
16	20.3	7.62	10.1	12.3	Fig. 8	150-PP-316-00-106101
18	22.8	7.62	10.1	12.3	Fig. 9	150-PP-318-00-106101
20	25.3	7.62	10.1	12.3	Fig. 10	150-PP-320-00-106101
22	27.8	7.62	10.1	12.3	Fig. 11	150-PP-322-00-106101
24	30.4	7.62	10.1	12.3	Fig. 12	150-PP-324-00-106101
28	35.5	7.62	10.1	12.3	Fig. 13	150-PP-328-00-106101
20	25.4	10.16	12.6	14.84	Fig. 14	150-PP-420-00-106101
22	27.8	10.16	12.6	14.84	Fig. 15	150-PP-422-00-106101
24	30.4	10.16	12.6	14.84	Fig. 16	150-PP-424-00-106101
28	35.5	10.16	12.6	14.84	Fig. 17	150-PP-428-00-106101
32	40.6	10.16	12.6	14.84	Fig. 18	150-PP-432-00-106101
24	30.5	15.24	17.7	19.92	Fig. 20	150-PP-624-00-106101
28	35.5	15.24	17.7	19.92	Fig. 21	150-PP-628-00-106101
32	40.6	15.24	17.7	19.92	Fig. 22	150-PP-632-00-106101
36	45.7	15.24	17.7	19.92	Fig. 23	150-PP-636-00-106101
40	50.8	15.24	17.7	19.92	Fig. 24	150-PP-640-00-106101
42	53.3	15.24	17.7	19.92	Fig. 25	150-PP-642-00-106101
48	60.9	15.24	17.7	19.92	Fig. 26	150-PP-648-00-106101

PCB Layout



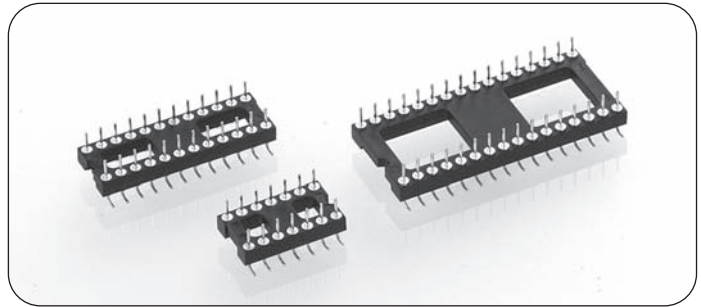
Due to technical progress, all the information provided is subject to change without prior notice



Specially designed for reflow soldering including vapor phase. With male contact pluggable into standard socket contacts and gull wing terminations

Technical Specs:

Insulator: Black glass filled polyester PCT-GF30-FR
 Flammability: UL 94V-0
 Contact: Brass CuZn36Pb3 (C36000)
 Connecting pin Ø: 0.47 mm
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Dielectric strength: min 1000 V_{RMS}
 Coplanarity SMD terminations: max 0.10 mm

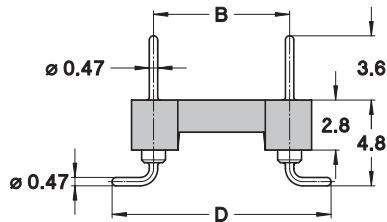


Ordering information

PP Plating code	Termination	Connecting pin
10	Gold 0.25 µm	Gold 0.25 µm
90	Tin	Tin
Z1	Tin	Gold 0.25 µm

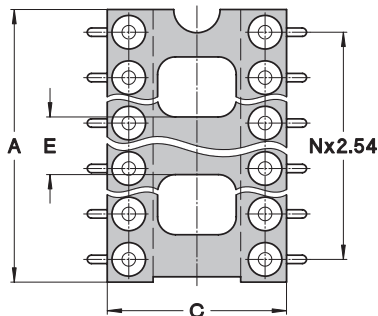
Other plating on request see page 146 for plating specs

Tape & Reel packaging: replace 161 by suffix 191 to part number
 Other pin counts please consult

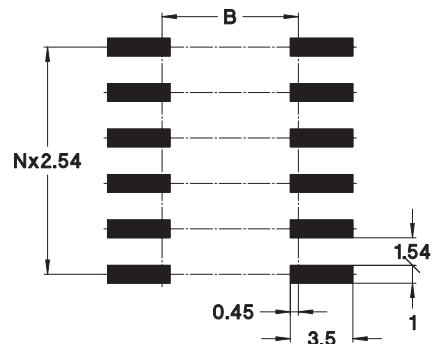


No. of poles	A	B	C	D	E	Order Codes
6	7.6	7.62	10.1	12.3	7.6	150-PP-306-00-106161
8	10.1	7.62	10.1	12.3	10.1	150-PP-308-00-106161
10	12.6	7.62	10.1	12.3	12.6	150-PP-310-00-160161
14	17.8	7.62	10.1	12.3	5.3	150-PP-314-00-106161
16	20.3	7.62	10.1	12.3	5.3	150-PP-316-00-106161
18	22.9	7.62	10.1	12.3	5.3	150-PP-318-00-106161
20	25.4	7.62	10.1	12.3	8.3	150-PP-320-00-106161
24	30.4	7.62	10.1	12.3	8.3	150-PP-324-00-106161
28	35.6	7.62	10.1	12.3	8.3	150-PP-328-00-106161
28	35.5	15.24	17.7	19.22	10.0	150-PP-628-00-106161
32	40.6	15.24	17.7	19.22	10.0	150-PP-632-00-106161
40	50.8	15.24	17.7	19.22	10.0	150-PP-640-00-106161
42	53.4	15.24	17.7	19.22	10.0	150-PP-642-00-106161

Insulator



PCB Layout



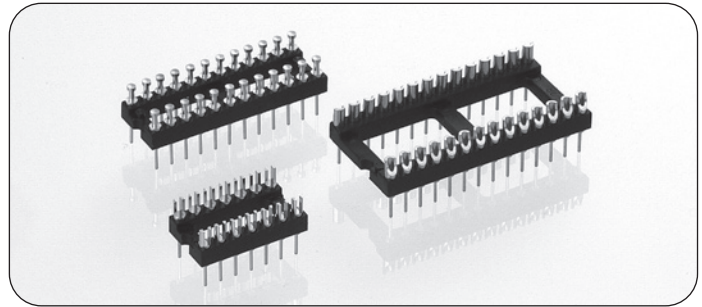
Due to technical progress, all the information provided is subject to change without prior notice



DIL headers for wiring applications

Technical Specs:

Insulator:	Black glass filled polyester PBT-GF30-FR
Flammability:	UL 94V-O
Contact:	Brass CuZn36Pb3 (C36000)
Connecting pin Ø:	0.5 mm
Mechanical life:	min 100 cycles
Rated current:	1 A
Dielectric strength:	min 1000 V _{RMS}



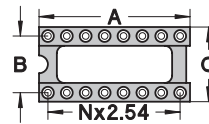
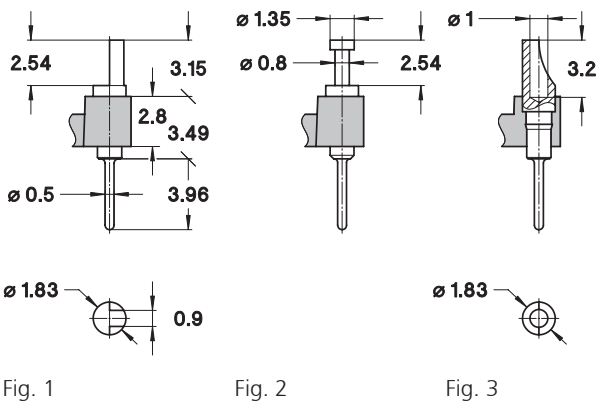
Ordering information

PP Plating code	Termination	Connecting pin
10	Gold 0.25 µm	Gold 0.25 µm
90	Tin	Tin

Other plating on request see page 146 for plating specs

For complete part number replace **XX** with the code given below left

DIL Sockets



No. of poles	A	B	C	See page 100	Order Codes
10	12.6	5.08	7.6	Fig. 1	1XX-PP-210-00-001001
4	5.0	7.62	10.1	Fig. 2	1XX-PP-304-00-001001
6	7.6	7.62	10.1	Fig. 3	1XX-PP-306-00-001001
8	10.1	7.62	10.1	Fig. 4	1XX-PP-308-00-001001
10	12.6	7.62	10.1	Fig. 5	1XX-PP-310-00-001001
12	15.2	7.62	10.1	Fig. 6	1XX-PP-312-00-001001
14	17.7	7.62	10.1	Fig. 7	1XX-PP-314-00-001001
16	20.3	7.62	10.1	Fig. 8	1XX-PP-316-00-001001
18	22.8	7.62	10.1	Fig. 9	1XX-PP-318-00-001001
20	25.3	7.62	10.1	Fig. 10	1XX-PP-320-00-001001
22	27.8	7.62	10.1	Fig. 11	1XX-PP-322-00-001001
24	30.4	7.62	10.1	Fig. 12	1XX-PP-324-00-001001
28	35.5	7.62	10.1	Fig. 13	1XX-PP-328-00-001001
20	25.4	10.16	12.6	Fig. 14	1XX-PP-420-00-001001
22	27.8	10.16	12.6	Fig. 15	1XX-PP-422-00-001001
24	30.4	10.16	12.6	Fig. 16	1XX-PP-424-00-001001
28	35.5	10.16	12.6	Fig. 17	1XX-PP-428-00-001001
32	40.6	10.16	12.6	Fig. 18	1XX-PP-432-00-001001
10	12.7	15.24	17.7	Fig. 19	1XX-PP-610-00-001001
24	30.5	15.24	17.7	Fig. 20	1XX-PP-624-00-001001
28	35.5	15.24	17.7	Fig. 21	1XX-PP-628-00-001001
32	40.6	15.24	17.7	Fig. 22	1XX-PP-632-00-001001
36	45.7	15.24	17.7	Fig. 23	1XX-PP-636-00-001001
40	50.8	15.24	17.7	Fig. 24	1XX-PP-640-00-001001
42	53.3	15.24	17.7	Fig. 25	1XX-PP-642-00-001001
48	60.9	15.24	17.7	Fig. 26	1XX-PP-648-00-001001
50	63.5	15.24	17.7	Fig. 27	1XX-PP-650-00-001001
52	66.0	15.24	17.7	Fig. 28	1XX-PP-652-00-001001
50	63.5	22.86	25.3	Fig. 29	1XX-PP-950-00-001001
52	66.0	22.86	25.3	Fig. 30	1XX-PP-952-00-001001
64	81.2	22.86	25.3	Fig. 31	1XX-PP-964-00-001001

Available versions

Replace 1XX... in order code by

Order code	Description	Dimensions
160	Header with slotted head to accept wires or component leads	see Fig. 1
170	Header with turret head	see Fig. 2
180	Header with solder cup	see Fig. 3

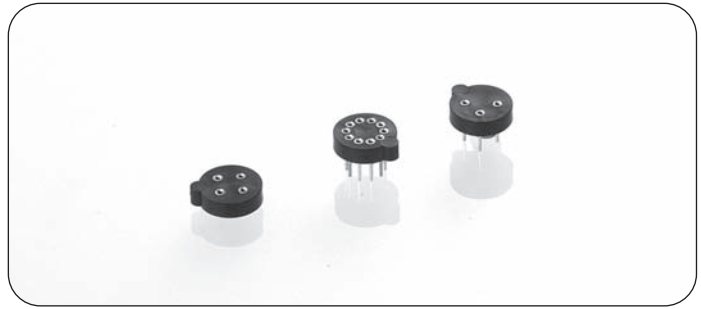
Due to technical progress, all the information provided is subject to change without prior notice



Sockets for packages with contacts arranged on "200" (5.08 mm) and "230" (5.84 mm) diameter acc. to JEDEC TO-Series outlines

Technical Specs:

Insulator: Black glass filled polyester PBT-GF30-FR (PCT-GF30-FR for SMD sockets)
 Flammability: UL 94V-0
 Sleeve: Brass CuZn36Pb3 (C36000)
 Contact clip (4 finger): Beryllium copper (C17200)
 Accepted pin Ø: 0.40 to 0.56 mm
 Forces: (polished steel gauge Ø 0.43 mm)
 – Insertion: 2 N typ.
 – Withdrawal: 1 N typ.
 Mechanical life: min 100 cycles
 Rated current: 1 A
 Contact resistance: max 10 mΩ
 Dielectric strength: min 1000 V_{RMS}



Ordering information

PP Plating code	Sleeve	Clip
93	Tin	Gold 0.75 µm

Other plating on request see page 146 for plating specs

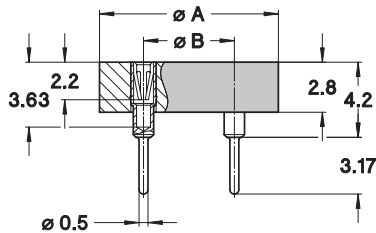


Fig. 1

Sockets, solder tail, Fig. 1

No. of poles	A	B	See	Order Codes
3	10.0	5.08	Fig. 3	917-PP-103-41-005001
4	10.0	5.08	Fig. 4	917-PP-104-41-005001
8	10.0	5.08	Fig. 5	917-PP-108-41-005001
8	10.0	5.84	Fig. 6	917-PP-208-41-005001
10	10.0	5.84	Fig. 7	917-PP-210-41-005001

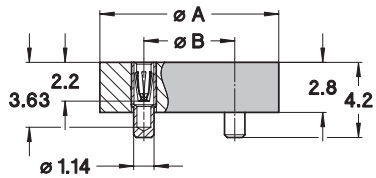


Fig. 2

Sockets, SMD mount, Fig. 2



No. of poles	A	B	See	Order Codes
3	10.0	5.08	Fig. 3	917-PP-103-41-053101
4	10.0	5.08	Fig. 4	917-PP-104-41-053101
8	10.0	5.08	Fig. 5	917-PP-108-41-053101
8	10.0	5.84	Fig. 6	917-PP-208-41-053101
10	10.0	5.84	Fig. 7	917-PP-210-41-053101

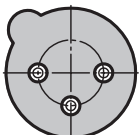


Fig. 3

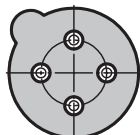


Fig. 4

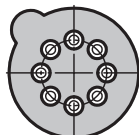


Fig. 5

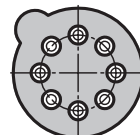


Fig. 6

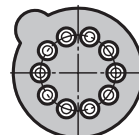


Fig. 7

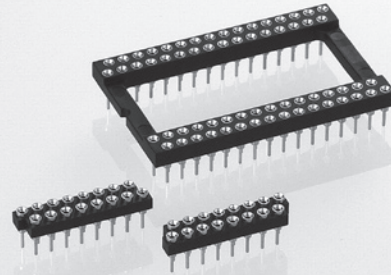
Due to technical progress, all the information provided is subject to change without prior notice



Quad-in-line sockets and staggered (zig-zag) strips are suitable for IC's with staggered double row Dual-in-line type pin patterns

Technical Specs:

Insulator:	Black glass filled polyester PBT-GF30-FR
Flammability:	UL 94V-O
Sleeve:	Brass CuZn36Pb3 (C36000)
Contact clip (4 finger):	Beryllium copper (C17200)
Accepted pin Ø:	0.40 to 0.56 mm
Forces:	(polished steel gauge Ø 0.43 mm)
- Insertion	2 N typ.
- Withdrawal	1 N typ.
Mechanical life:	min 100 cycles
Rated current:	1 A
Contact resistance:	max 10 mΩ
Dielectric strength:	min 1000 V _{RMS}



Ordering information

PP Plating code	Sleeve	Clip
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm

Other plating on request see page 146 for plating specs

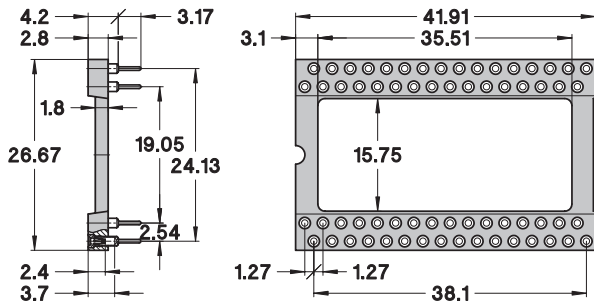


Fig. 1

Quad-in-line socket

No. of poles	See	Order Codes
64	Fig. 1	110-PP-064-01-505001

Note:

Suitable for quad-in-line packages with 19.05 / 23.50 mm row spacing acc. to JEDEC MO-030. Quad-in-line socket layout requires 19.05 / 24.13 mm row spacing.

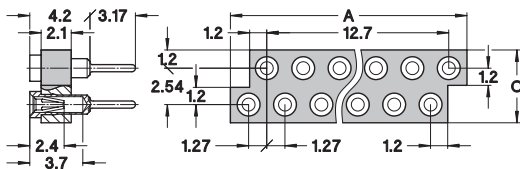


Fig. 2

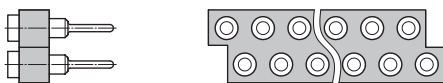


Fig. 3

* 14-pin strips are not stackable end to end

Staggered zig-zag strips

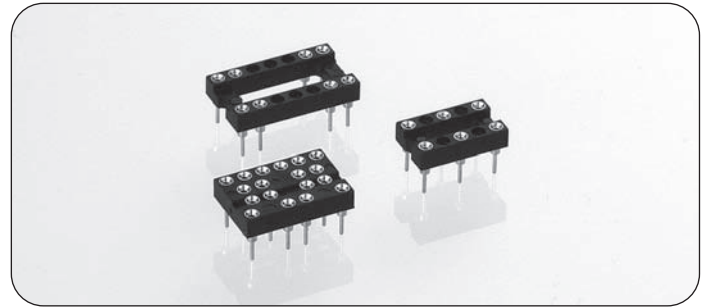
No. of poles	A	C	Version	See	Order Codes
14*	19.0	5.0	left right	Fig. 2 Fig. 3	410-PP-214-10-001001 410-PP-214-10-002001
16	21.5	5.0	left right	Fig. 2 Fig. 3	410-PP-216-10-001001 410-PP-216-10-002001
20	26.57	5.0	left right	Fig. 2 Fig. 3	410-PP-220-10-001001 410-PP-220-10-002001
24	31.65	5.0	left right	Fig. 2 Fig. 3	410-PP-224-10-001001 410-PP-224-10-002001
28	36.73	5.0	left right	Fig. 2 Fig. 3	410-PP-228-10-001001 410-PP-228-10-002001
30	39.27	5.0	left right	Fig. 2 Fig. 3	410-PP-230-10-001001 410-PP-230-10-002001
40	52.0	5.0	left right	Fig. 2 Fig. 3	410-PP-240-10-001001 410-PP-240-10-002001



Partially equipped DIL sockets and display sockets

Technical Specs:

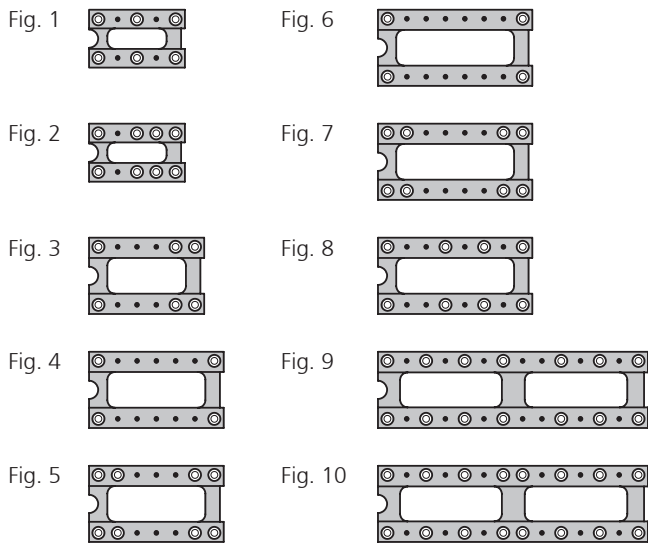
Insulator:	Black glass filled polyester PBT-GF30-FR
Flammability:	UL 94V-O
Sleeve:	Brass CuZn36Pb3 (C36000)
Contact clip (4 finger):	Beryllium copper (C17200)
Accepted pin Ø:	0.40 to 0.56 mm
Forces:	(polished steel gauge Ø 0.43 mm)
- Insertion	2 N typ.
- Withdrawal	1 N typ.
Mechanical life:	min 100 cycles
Rated current:	1 A
Contact resistance:	max 10 mΩ
Dielectric strength:	min 1000 V _{RMS}



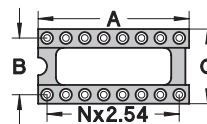
Ordering information

PP Plating code	Sleeve	Clip
97	Tin	Gold flash
91	Tin	Gold 0.25 µm
93	Tin	Gold 0.75 µm
99	Tin	Tin

Other plating on request see page 146 for plating specs



Partially equipped DIL sockets



No. of poles Total / equipped	A	B	C	See	Order Codes
10 / 6 8	12.6	5.08	7.6	Fig. 1 Fig. 2	110-PP-210-01-742001 110-PP-210-01-839001
12 / 6	15.2	7.62	10.1	Fig. 3	110-PP-312-01-680001
14 / 4 8	17.7	7.62	10.1	Fig. 4 Fig. 5	110-PP-314-10-001001 110-PP-314-10-002001
4 16 / 8 8	20.3	7.62	10.1	Fig. 6 Fig. 7 Fig. 8	110-PP-316-01-822001 110-PP-316-01-931001 110-PP-316-10-003001
28 / 14 16	35.5	7.62	10.1	Fig. 9 Fig. 10	110-PP-328-01-777001 110-PP-328-01-762001

Other pin count and arrangement please consult

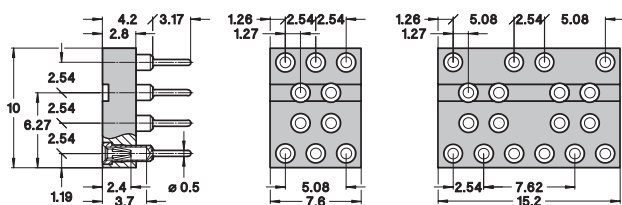


Fig. 11 Fig. 12

Display sockets for 7 segment displays (1 or 2 digits)

No. of poles	See	Order Codes
10	Fig. 11	510-PP-010-01-504101 510-PP-010-01-783101
18	Fig. 12	510-PP-018-01-504101 510-PP-018-01-783101

Please consult for other display sockets, single or multidigits

Due to technical progress, all the information provided is subject to change without prior notice

