•P.C.B. RIBBON CABLE TRANSITION CONNECTOR (IDC TYPE)

P.C.B. Ribbon Cable Transition connectors, terminated (IDC) with Flat Ribbon Cable, make connection with P.C. Board. Three versions are available.

- PCB DIRECT TRANSITION CONNECTOR
- 0.10 (2.54mm) Grid, TRANSITION CONNECTOR
- IDC DUAL-IN-LINE PLUG CONNECTOR, which can be mated with IC socket or which can be soldered directly to PCB

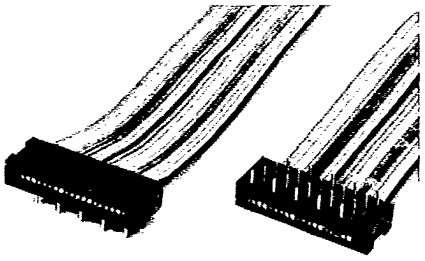
IDC termination tools are provided for these versions individually.

A-65-11

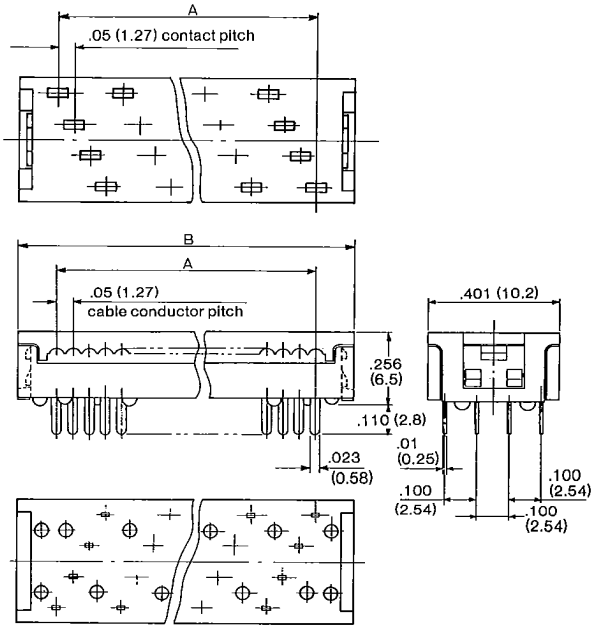
○ **MATERIALS & FINISHES**
Contact: Beryllium copper, gold over nickel plated
Housing & Cover: Polyester (UL94V-0, black)
Cover (for DIP type): 66 Nylon (UL94V-0, black)

○ **APPLICABLE FLAT RIBBON CABLE**
Conductor: AWG #28 7-stranded or solid
Tin plated annealed copper wire
Laminating Material: Soft Vinyl Chloride
.043 (1.1) thick max.

•PCB DIRECT TRANSITION CONNECTOR

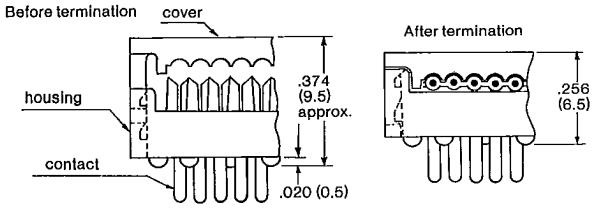


IDC Tool:
MT-PCB-1C

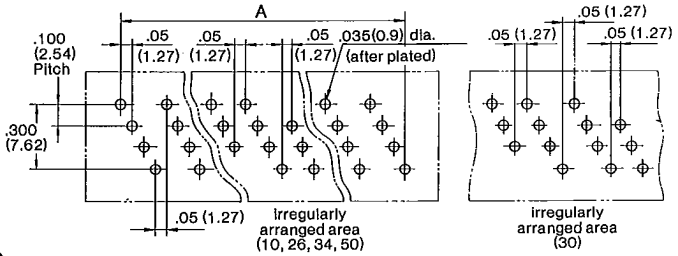


•GENERAL SPECIFICATIONS

Rated Current: 1 Amp
Dielectric Withstanding Voltage: 500 VAC rms, one minute
Insulation Resistance: 1,000 Megohms min.
Operating Temperature: −55°C to +105°C



PCB MOUNTING HOLE DIMENSION



No. of Contact	Part Number	A ±.008 (±0.2)	B ±.03 (±0.8)
10	PS-10B2-1	.450 (11.43)	.687 (17.45)
16	PS-16B2-1	.750 (19.05)	.987 (25.07)
20	PS-20B2-1	.950 (24.13)	1.187 (30.15)
26	PS-26B2-1	1.250 (31.75)	1.487 (37.77)
30	PS-30B2-1	1.450 (36.83)	1.687 (42.85)
34	PS-34B2-1	1.652 (41.95)	1.887 (47.93)
40	PS-40B2-1	1.950 (49.53)	2.187 (55.55)
50	PS-50B2-1	2.450 (62.23)	2.687 (68.25)
60	PS-60B2-1	2.950 (74.93)	3.187 (80.95)

Dimensions subject to change.
(millimeters are in parentheses)

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■GENERAL SPECIFICATIONS (MAIN PERFORMANCE)

(Note) Group A... crimp type socket connector, dip receptacle pin header, pin connector
Group B... socket connector for FRC (contact installed) and PCB transition connector

	TEST ITEM	PERFORMANCE		TEST METHOD
		GROUP A	GROUP B	
ELECTRICAL	Rated current	3 A	1 A	—
	Insulation resistance	1000 MΩ min.	1000 MΩ min.	To be measured within 1 min. with 500 VDC (100 VDC for FRC socket) applied between contacts
	D.W.V.	1000 VAC r.m.s.	500 VAC r.m.s.	Between the most adjacent contacts for 1 min.
	Contact resistance	10 mΩ max.	(a) socket... 20 mΩ max. (b) transition 10 mΩ max.	Voltage drop measurement, test current 0.1 A DC, applied voltage 3—6 V
	Low level contact resistance	10 mΩ max.	(a) socket... 20 mΩ max. (b) transition 10 mΩ max.	Test current 1 mA max. Open test voltage 20 mV max.
MECHANICAL	Lever operating force (shrouded pin header)	2 kg max. for 10 contact connector 2.5 kg max. for 16—34 contact connector 3 kg max. for 40—50 contact connector 3.5 kg max. for 60 contact connector		Both levers are operated evenly to unmate mated connectors and the load is measured using tester
	Locking strength (shrouded pin header)	(a) 8 kg min. (b) no cracking, breaking or loosening of parts		Mated connectors are pulled in the axial direction and the load is measured using tester.
	Individual contact unmating force	40 g min.		A steel pin gage (.025±.00004 (0.64±0.01)) is inserted into and withdrawn from socket contact in the axial direction and withdrawal force is measured
	Connector mating/ unmating force	(a) connector mating force... 300 g x (no. of contacts) max. (b) connector unmating force... 40 g x (no. of contacts) min.		Pin header is inserted into and withdrawn from socket connector in the axial direction and the load is measured using a tester
	Cover holding force	—	(a) socket... 10 kg min. (b) transition 5 kg min.	Cover insulator assembled in base insulator is pulled to separate from base insulator and the load is measured
	Crimp tensile strength (crimp contact only)	Nominal sect. area / Corresponding AWG No. / Min. crimp tensile strength		Both ends of crimped contact and wire are pulled to the axial direction until the contact and the wire are ultimately separated or broken
		0.2 mm² / #24 / 3.5 kg		
		0.15 / #26 / 2.1		
		0.08 / #28 / 1.4		
ENVIRONMENTAL	Thermal shock	Step / Temperature (°C) / Time (min.)		MIL-STD-202, Method 107, condition B (condition A for FRC connector), mated connector, 5 cycles, no physical damage during test.
		1 / −65 +0 −3 (−65 +0 −3 for Group B) / 30		
		2 / +25 +10 −5 / 5 max.		
		3 / +125 +3 −0 (+85 +3 −0 for Group B) / 30		
		4 / +25 +10 −5 / 5 max.		
	Moisture resistance	After test Insulation resistance 100 MΩ min.		MIL-STD-202, Method 103, condition B, Mated connector, 40±2°C, 90 to 95% relative humidity, 96 hours
	Salt spray	No evidence of corrosion on contacts sufficient to interfere with operation of connectors.		MIL-STD-202, method 101, condition B, Mated connector, 5% salt solution, 35°C, 48 hours
	Vibration	No cracking, breaking or loosening of parts, no interruption more than 1 microsecond max. Individual contact unmating force and connector mating/ unmating force are to be passed		MIL-STD-202, Method 204 (Method 201 for FRC connector) Mated connectors, carrying a 100 mA current during test
	Shock	No cracking, breaking or loosening of parts. No interruption more than 1 microsecond		MIL-STD-202, Method 202, Mated connector, 50G, one blow in each direction of three mutually perpendicular axes, carrying a 100mA current during test
	Durability	No physical defects during test After test, Individual contact unmating force: 40 g min. Contact resistance: 10 mΩ max. (40 mΩ max. for FRC connector)		500 cycles of mating and unmating
	Current cycling	Wire size (AWG) / Test current (A) / Voltage drop (mV)		50 cycles of current cycling test (one cycle consists current running of 30 minutes and no current of 15 minutes) are conducted and the resistance at connecting portion is measured.
		#28 / 1.25 / 5		
		#26 / 1.25 / 4		
		#24 / 3.75 / 10		

Note: For detailed specifications, consult us.

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