

3M™ Pak 10 Boardmount Plug

1 mm Right Angle, Through-Hole

PK10M Series



- 1 mm pitch connector system
- Four mating heights available
- Available power contacts rated at 5A
- Available frame ground connection through surfacemount retention clips
- Keyed design helps prevent mating misalignment
- RoHS compliant* version (DA plating suffix) available

Date Modified: January 9, 2007

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Physical

Insulation

Material: Glass Filled LCP
Flammability: UL 94V-0
Color: Black

Materials

Signal Contact: Copper Alloy
Power Contact: Copper Alloy
Retention Clips: Copper Alloy

Contact Plating

Underplating: 120 μ " [3.0 μ m] Nickel
Wiping Area: 4 μ " [0.10 μ m] min. Gold
Solder Tails: Tin Alloy or Gold Flash (RoHS compliant)

Retention Clip Plating: Tin Copper over 120 μ " [3.0 μ m] Nickel

Marking: Polarity Identification Triangle, Lot Number, Standoff Indicator Code

Electrical

Current Rating: 0.5 A per Signal Contact, 5 A Power Contact

Insulation Resistance: 1×10^3 M Ω min at 250 V_{DC}

Withstanding Voltage: 300 V_{AC} for 1 minute

Environmental

Temperature Rating: -55°C to +85°C

Process Rating: Maximum 260°C

"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

3M™ Pak 10 Boardmount Plug

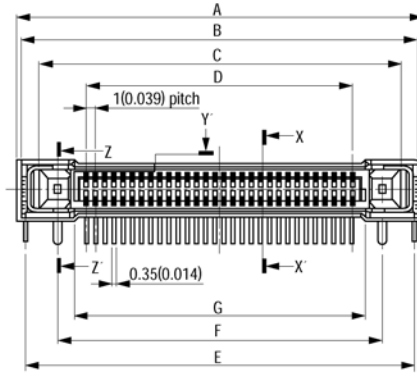
1 mm Right Angle, Through-Hole

PK10M Series

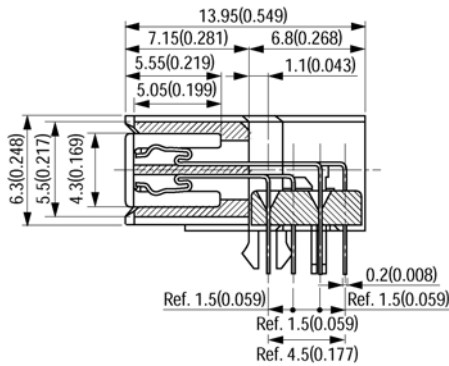
Plug with Power Contacts and without Standoff

Product Table / Dimensions

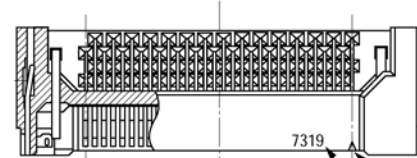
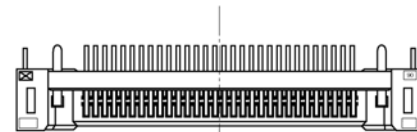
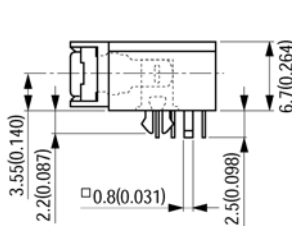
Contact Quantity	A	B	C	D	E	F	G
40	34.30	33.20	29.80	19.00	32.36	25.40	21.80
	[1.350]	[1.307]	[1.173]	[0.748]	[1.274]	[1.000]	[0.858]
50	39.30	38.20	34.80	24.00	37.36	30.40	26.80
	[1.547]	[1.504]	[1.370]	[0.945]	[1.471]	[1.197]	[1.055]
60	44.30	43.20	39.80	29.00	42.36	35.40	31.80
	[1.744]	[1.701]	[1.567]	[1.142]	[1.668]	[1.394]	[1.252]
80	54.30	53.20	49.80	39.00	52.36	45.40	41.80
	[2.138]	[2.094]	[1.961]	[1.535]	[2.061]	[1.787]	[1.646]



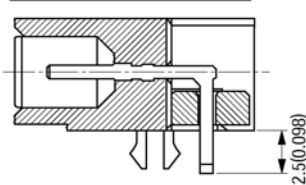
X-X' Cross Section



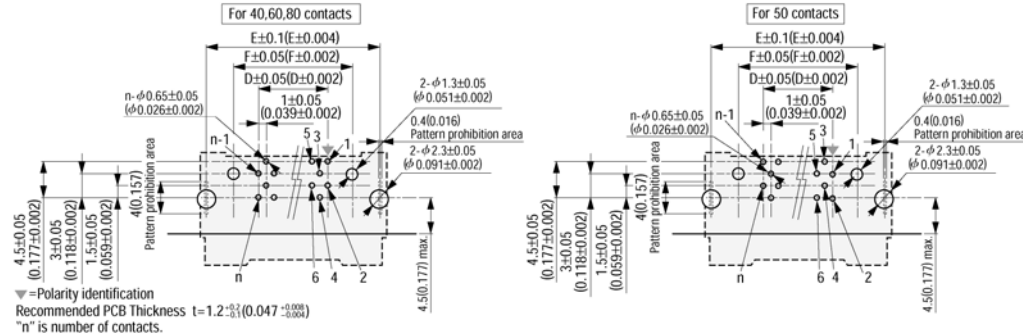
Y-Y' Cross Section



Z-Z' Cross Section



Printed Circuit Board Layout (Component Side View)



Ordering Information

PK10M - XXXPX - THX - XX

Contact Quantity
See Table

P = With Power Contacts
Omit = Without Power Contacts

Standoff Height:

- R = Without Standoff
- 1 = Standoff Height 1 mm [0.039"]
- 2 = Standoff Height 2 mm [0.079"]
- 3 = Standoff Height 3 mm [0.118"]
- 4 = Standoff Height 4 mm [0.157"]

Plating Suffix:

- TGF = Gold flash with tin-lead tails
- DA = Gold flash overall (RoHS compliant)

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Interconnect Solutions

<http://www.3M.com/interconnects/>

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For technical, sales or ordering information call

800-225-5373

3M™ Pak 10 Boardmount Plug

1 mm Right Angle, Through-Hole

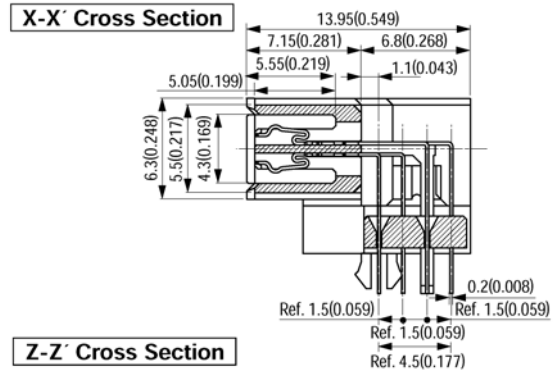
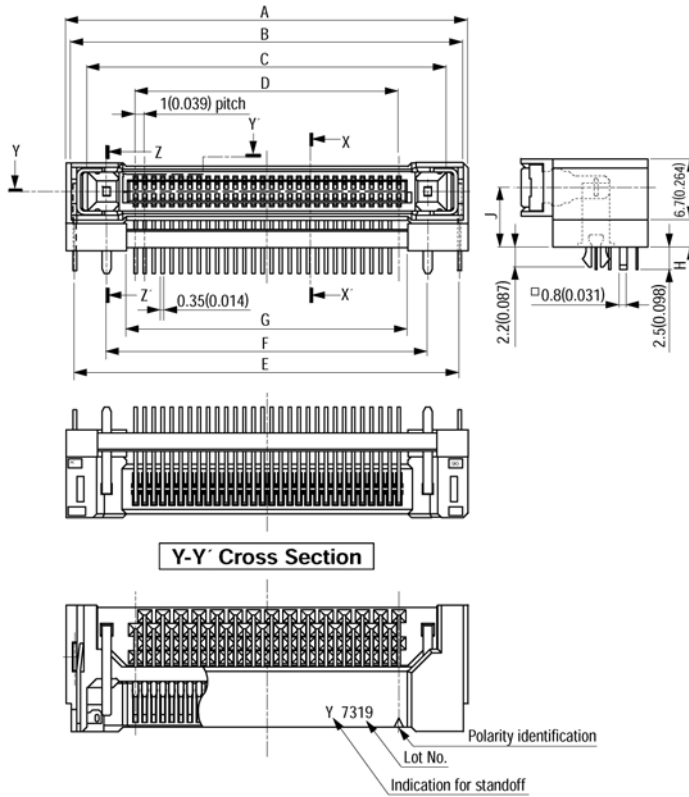
PK10M Series

Plug with Power Contacts with Standoff
Product Table / Dimensions

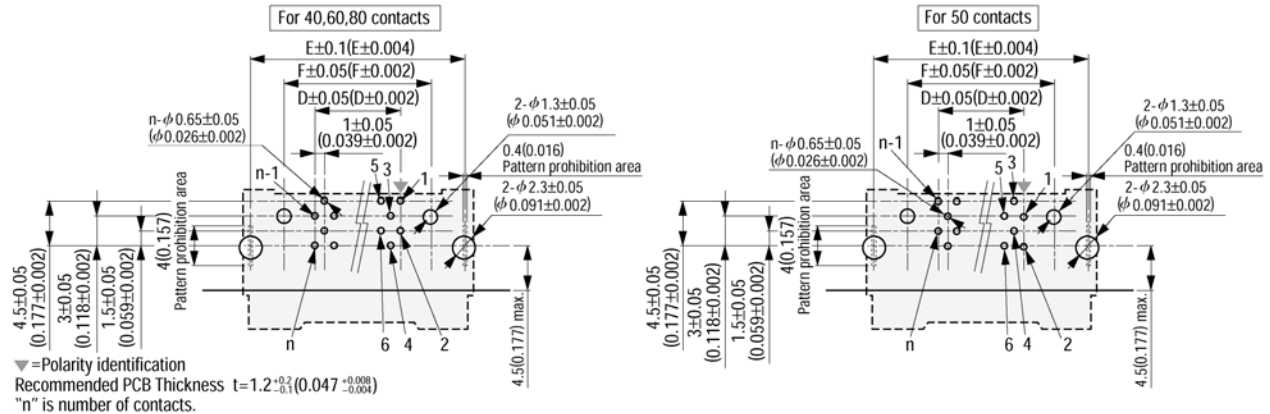
Contact Quantity	A	B	C	D	E	F	G
40	34.30	33.20	29.80	19.00	32.36	25.40	21.00
	[1.350]	[1.307]	[1.173]	[0.748]	[1.274]	[1.000]	[0.827]
50	39.30	38.20	34.80	24.00	37.36	30.40	26.00
	[1.547]	[1.504]	[1.370]	[0.945]	[1.471]	[1.197]	[1.024]
60	44.30	43.20	39.80	29.00	42.36	35.40	31.00
	[1.744]	[1.701]	[1.567]	[1.142]	[1.668]	[1.394]	[1.220]
80	54.30	53.20	49.80	39.00	52.36	45.40	41.00
	[2.138]	[2.094]	[1.961]	[1.535]	[2.061]	[1.787]	[1.614]

Standoff Height Table

Standoff Code	Connector Height	H	J
1	7.70	1.00	4.55
	[0.303]	[0.039]	[0.179]
2	8.70	2.00	5.55
	[0.343]	[0.079]	[0.219]
3	9.70	3.00	6.55
	[0.382]	[0.118]	[0.258]
4	10.70	4.00	7.55
	[0.421]	[0.157]	[0.297]



Printed Circuit Board Layout (Component Side View)



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3M™ Pak 10 Boardmount Plug

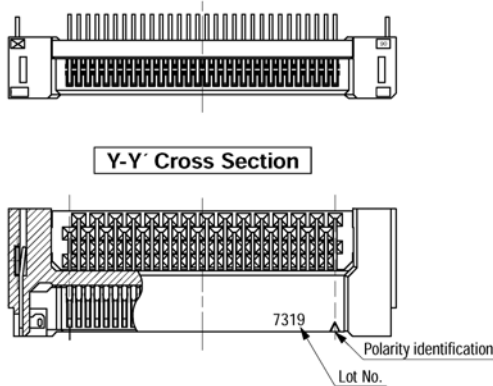
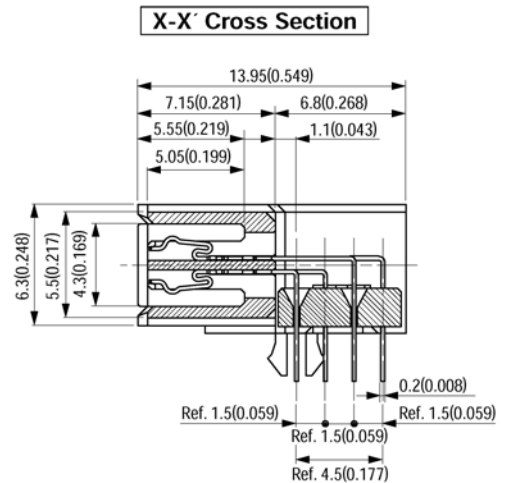
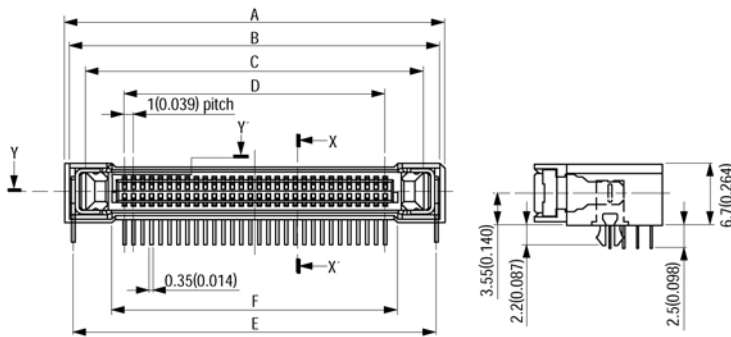
1 mm Right Angle, Through-Hole

PK10M Series

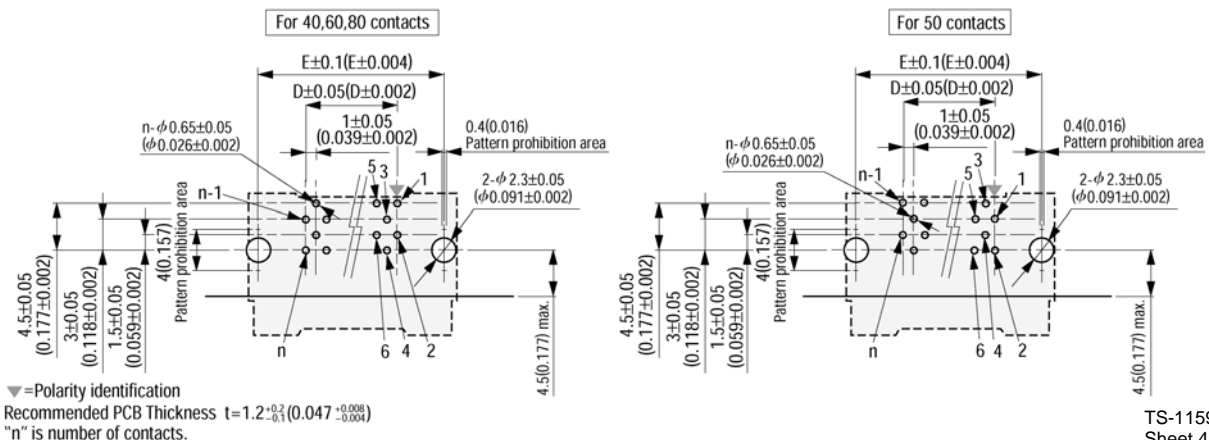
Plug without Power Contacts and Standoff

Product Table / Dimensions

Contact Quantity	A	B	C	D	E	F
40	32.30 [1.272]	31.20 [1.228]	27.80 [1.094]	19.00 [0.748]	30.36 [1.195]	21.80 [0.858]
50	37.30 [1.469]	36.20 [1.425]	32.80 [1.291]	24.00 [0.945]	35.36 [1.392]	26.80 [1.055]
60	42.30 [1.665]	41.20 [1.622]	37.80 [1.488]	29.00 [1.142]	40.36 [1.589]	31.80 [1.252]
80	52.30 [2.059]	51.20 [2.016]	47.80 [1.882]	39.00 [1.535]	50.36 [1.983]	41.80 [1.646]



Printed Circuit Board Layout (Component Side View)



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3M™ Pak 10 Boardmount Plug

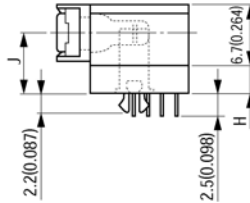
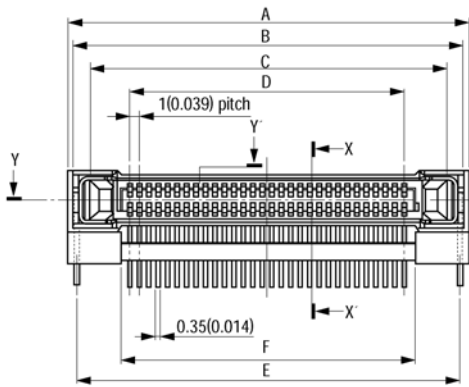
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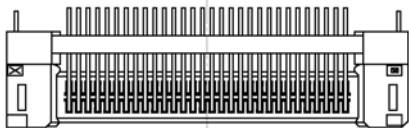
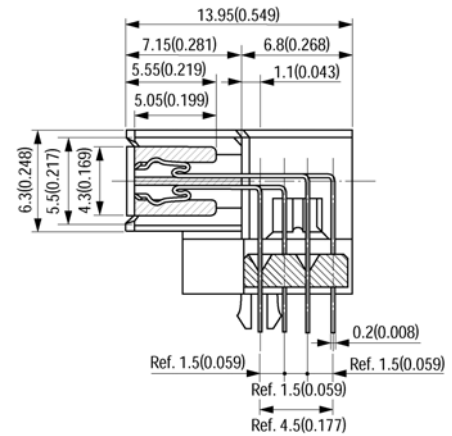
Plug without Power Contacts and with Standoff
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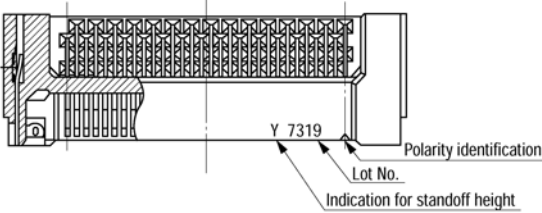
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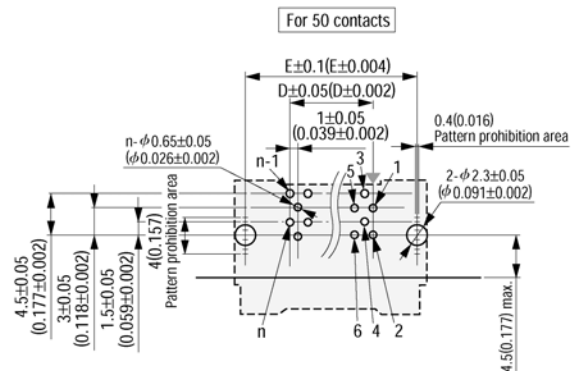
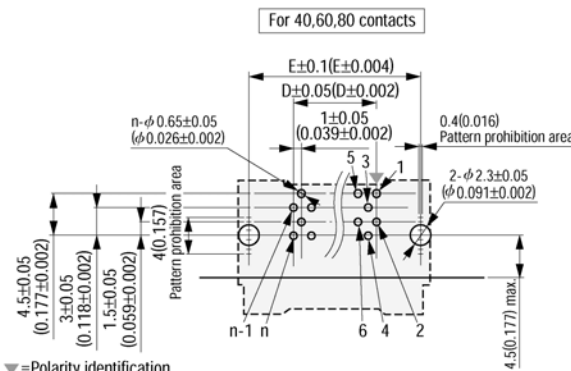
X-X' Cross Section



Y-Y' Cross Section



Printed Circuit Board Layout (Component Side View)



▼ = Polarity identification
Recommended PCB Thickness $t = 1.2_{-0.1}^{+0.2} (0.047_{-0.004}^{+0.008})$
"n" is number of contacts.

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Important Notice

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