

# 3M™ Pak 50 I/O Plug

.050" Straight and Right Angle, Through-Hole, Boardmount

P50 Series



- P50 Plug offers straight and right angle through-hole options
- Right angle P50 Plug comes with and without retention clips
- Latch/eject mechanism maintains a secure connection
- Mates to the P50 wiremount socket
- RoHS\* compliant

Date Modified: December 15, 2006

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## Physical

### Insulation

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

### Contact

Material: Phosphor Bronze

### Plating

Underplating: Nickel  
Wiping Area: 10 μ" [.25 μm] Gold  
Solder Tails: Gold Flash  
Retention Clips: Tin-Copper

## Electrical

**Current Rating:** 0.5 A  
**Insulation Resistance:**  $10^3 \Omega$  at 500 V<sub>DC</sub>  
**Withstanding Voltage:** 650 V<sub>AC</sub> for 1 minute

## Environmental

**Temperature Rating:** -55°C to +85°C  
**Process Rating:** 260°C (per J-STD-020C)

\*\*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 in writing by 3M, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M.

UL File No.: E68080

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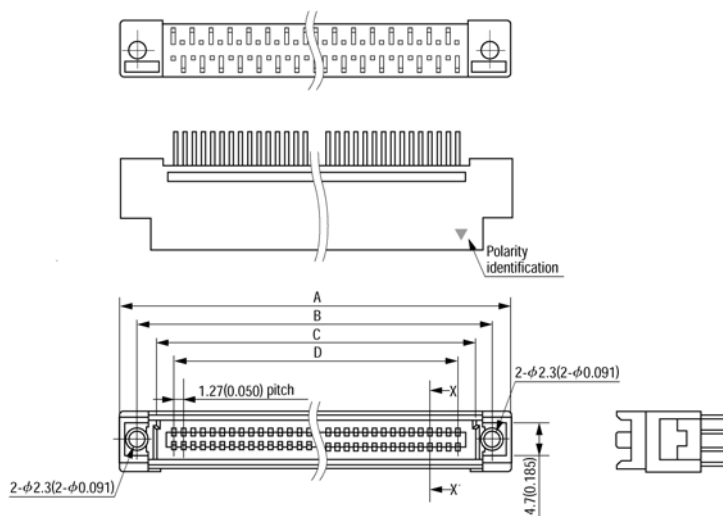


## For Straight and Right Angle Plug Product Table / Dimensions

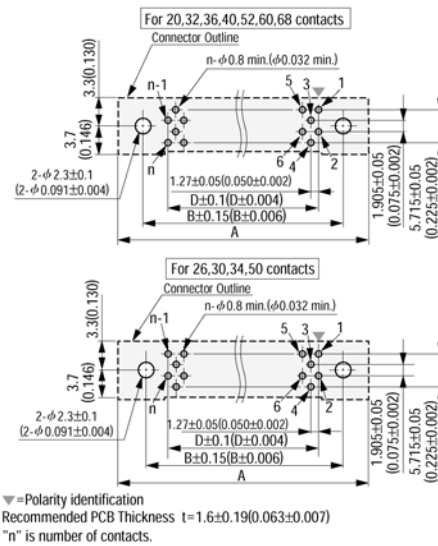
Contact Quantity	A	B	C	D
20	25.43	20.32	15.83	11.43
	[1.001]	[0.800]	[0.623]	[0.450]
26	29.24	24.13	19.64	15.24
	[1.151]	[0.950]	[0.773]	[0.600]
30	31.78	26.67	22.18	17.78
	[1.251]	[1.050]	[0.873]	[0.700]
32	33.05	27.94	23.45	19.05
	[1.301]	[1.100]	[0.923]	[0.750]
34	34.32	29.21	24.72	20.32
	[1.351]	[1.150]	[0.973]	[0.800]

Contact Quantity	A	B	C	D
40	38.13	33.02	28.53	24.13
	[1.501]	[1.300]	[1.123]	[0.950]
50	44.48	39.37	34.88	30.48
	[1.751]	[1.550]	[1.373]	[1.200]
52	45.75	40.64	36.15	31.75
	[1.801]	[1.600]	[1.423]	[1.250]
60	50.83	45.72	41.23	36.83
	[2.001]	[1.800]	[1.623]	[1.450]
68	55.91	50.80	46.31	41.91
	[2.201]	[2.000]	[1.823]	[1.650]

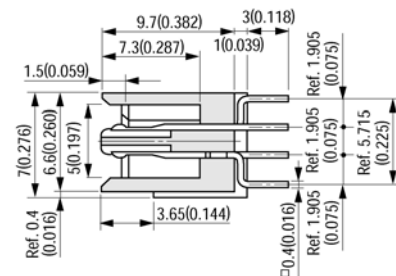
### Straight Plug



### Printed Circuit Board Layout (Component Side View)



### X-X' Cross Section



## Ordering Information

**P50 - XXXP1 - XXX - EA**

Contact Quantity  
See Table

S1 = Straight tails, w/o retention clips  
SR1 = Right angle tails, w/o retention clips  
RR1 = Right angle tails, with retention clips

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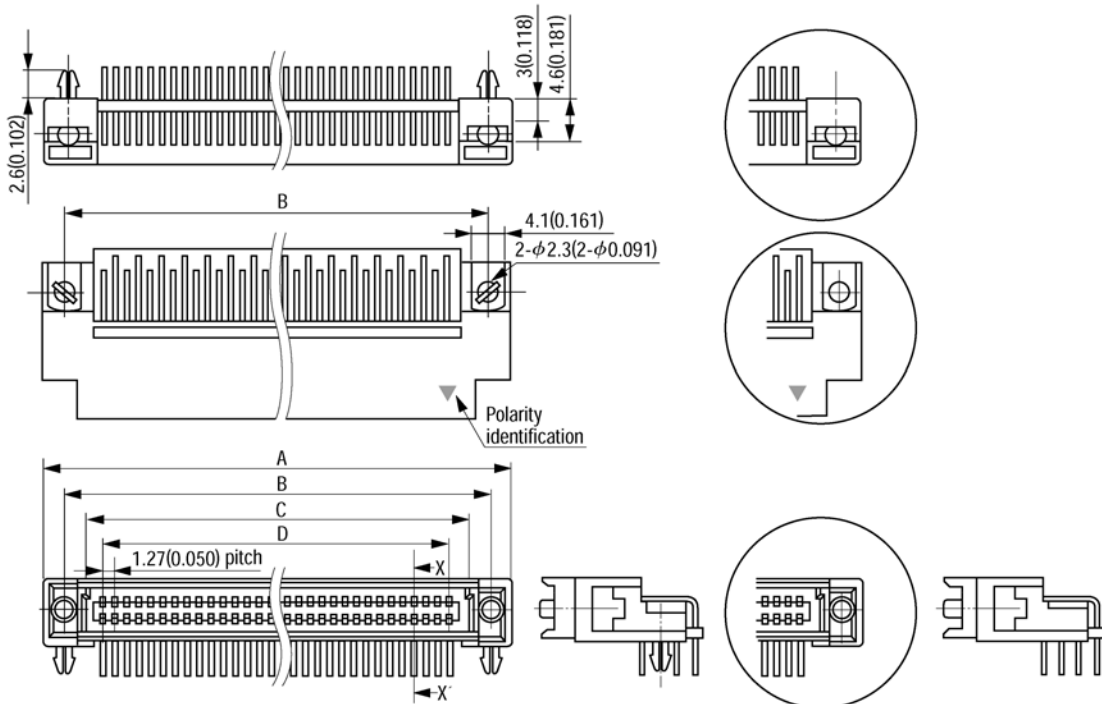
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P50 Series

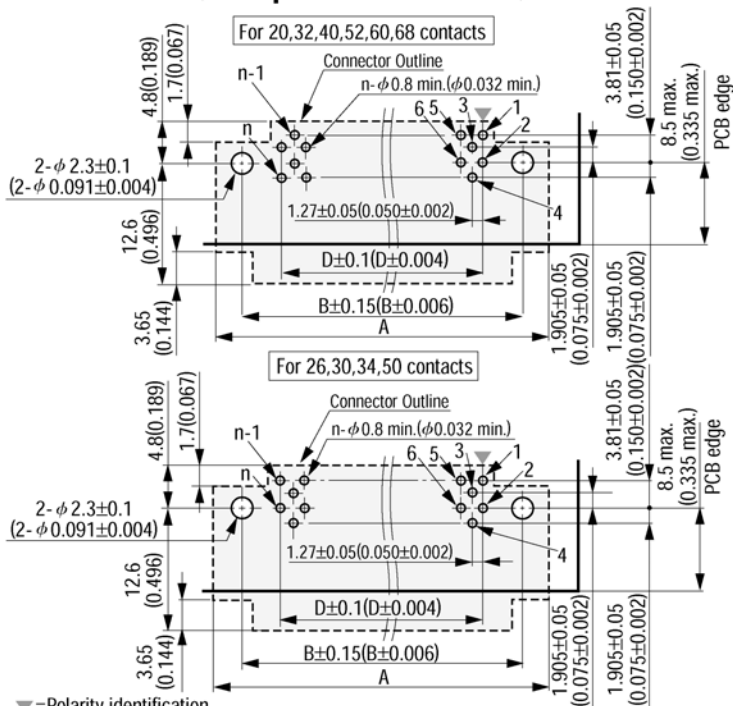


Right Angle Plug with Retention Clips

Right Angle Plug without Retention Clips

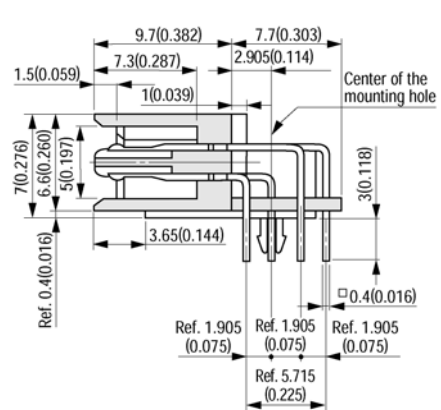


Printed Circuit Board Layout (Component Side View)



▼ = Polarity identification  
 Recommended PCB Thickness  $t = 1.6 \pm 0.19 (0.063 \pm 0.007)$   
 "n" is number of contacts.

X-X' Cross Section



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### 3M Electronics

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Minimum 10%  
Post-Consumer Fiber

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