

# 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. See the Regulatory Information Appendix (RIA) in the "RoHS Compliance" section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information (RIA E1 and C1 apply)

Date Modified: February 4, 2010

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## Physical

### Insulator:

Material: Glass Filled Nylon

Flammability: UL 94V-0

Color: Black

Contact Material: Phosphor Bronze

### Plating:

Underplating: Nickel

Wiping Area: 10 μ" [ 0.25 μm ] Gold

Solder Tails: Gold Flash

Retaining Clips: Tin-Copper

Mating Compatibility: TS-2047

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## Electrical

**Current Rating:** 0.5 A

**Insulation Resistance:**  $> 1 \times 10^9 \Omega$  at 500 V<sub>DC</sub>

**Withstanding Voltage:** 650 V<sub>AC</sub> for 1 minute

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## Environmental

**Temperature Rating:** -55°C to +85°C

**Process Rating:** 260°C Wave Solder Compatible

UL File No.: E68080



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**800-225-5373**

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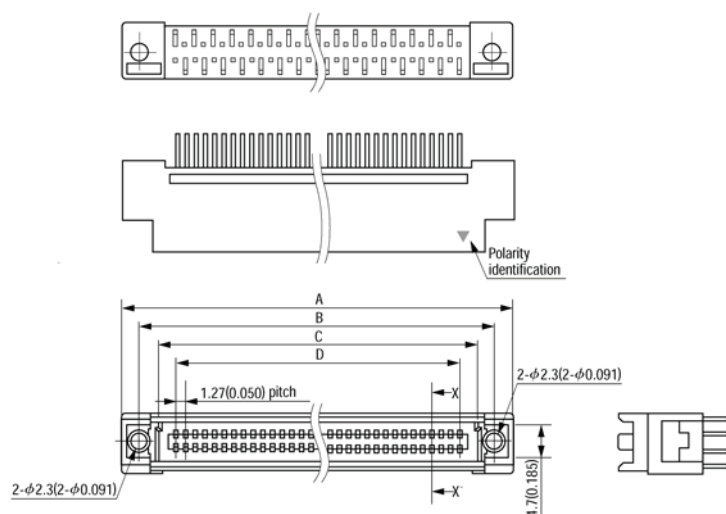


Product Table / Dimensions for Straight and Right Angle Plug

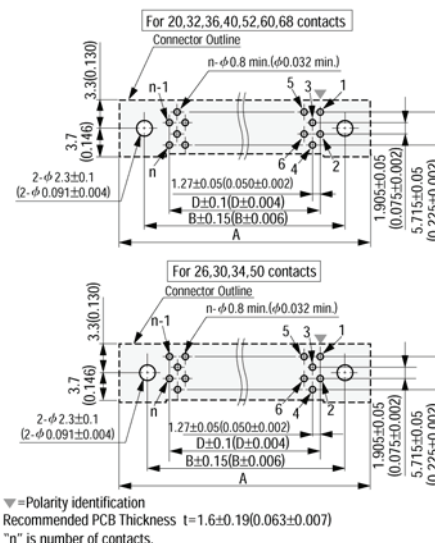
| Contact Quantity | A                | B                | C                | D                |
|------------------|------------------|------------------|------------------|------------------|
| 20               | 25.43<br>[1.001] | 20.32<br>[0.800] | 15.83<br>[0.623] | 11.43<br>[0.450] |
| 26     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

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

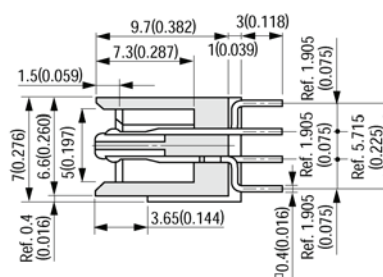
Straight Plug



Printed Circuit Board Layout  
(Component Side View)



X-X' Cross Section



## Ordering Information

**P50 - XXXP1 - XXX - EA**

Contact Quantity:  
See Table

S1 = Straight tails, without Retention Clips  
SR1 = Right Angle tails, without Retention Clips  
RR1 = Right Angle tails, with Retention Clips

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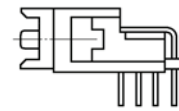
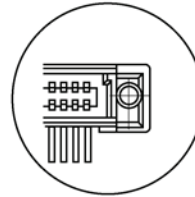
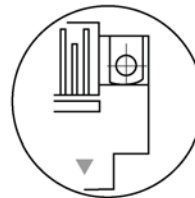
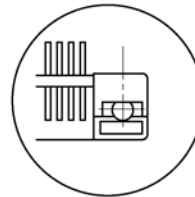
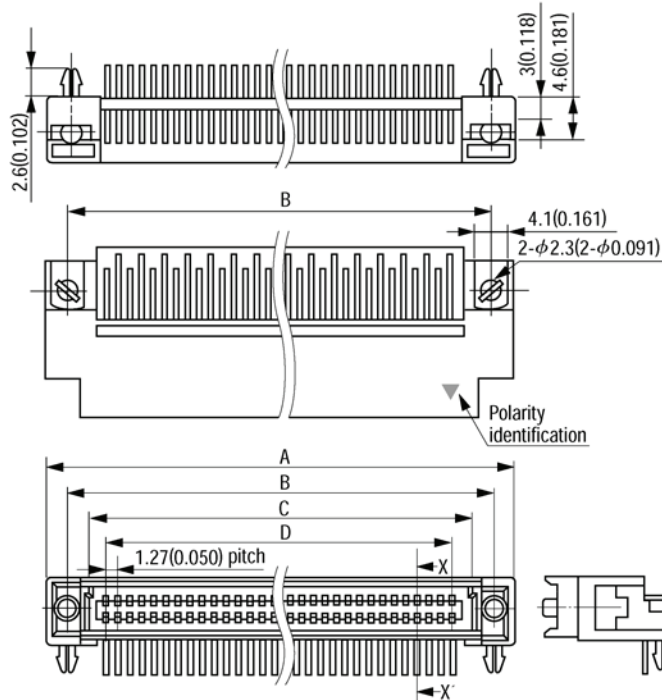
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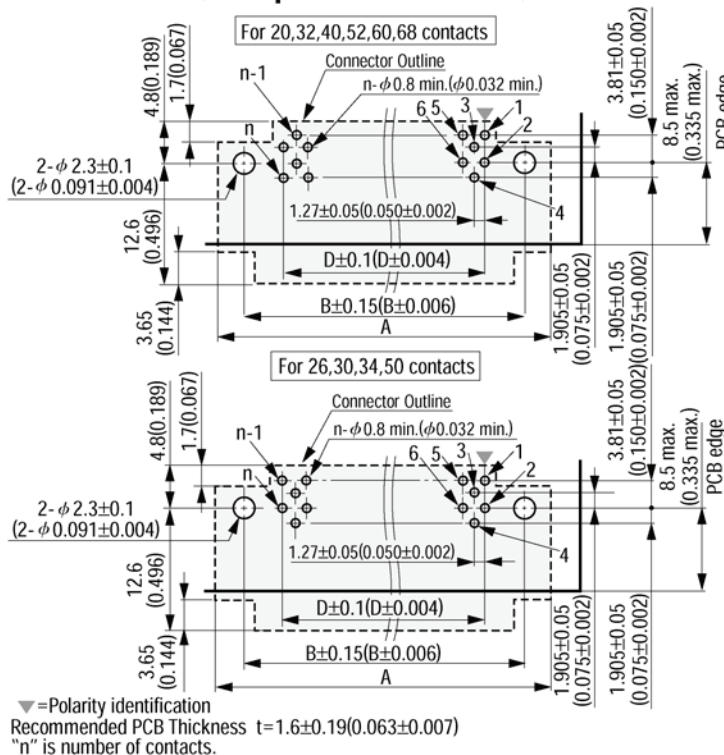


Right Angle Plug with Retention Clips

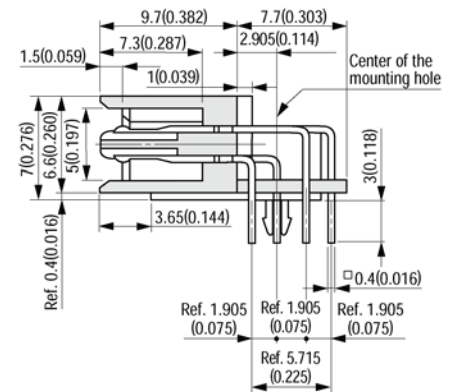
Right Angle Plug without Retention Clips



Printed Circuit Board Layout  
(Component Side View)



X-X' Cross Section



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#### **3M Electronics Solutions Division**

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