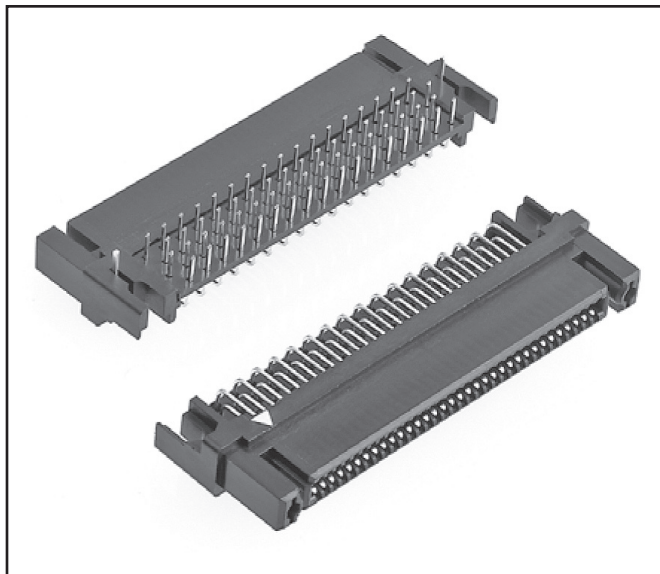


3M™ Pak 50 Power Ground Socket

.050" Straight and Right Angle Socket, with Power Ground Pin

P50 Series



- Power/ground contacts enable separation of power and signals
- EMLB power/ground contacts control static discharge and allow "hot board" replacement
- 2 amp power/ground contact rating for high current applications maximizes signal contact utilization
- RoHS Compliant. See the Regulatory Information Appendix (RIA) in the "RoHS Compliance" section of www.3Mconnector.com for compliance information (RIA E1 and C1 apply)

Date Modified: February 18, 2010

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Sheet 1 of 3

Physical

Insulator:

Material: Glass Filled Nylon

Flammability: UL 94V-0

Color: Black

Contact Material: Phosphor Bronze

Plating:

Underplating: Nickel

Wiping Area: 10 μ " [.25 μ m] Gold

Solder Tails: Gold Flash

Retainer Clips: Tin-Copper

Mating Compatibility: TS-2051

Electrical

Current Rating: 0.5 A per Signal Contact, 2 A per Power Contact

Insulation Resistance: $> 1 \times 10^9 \Omega$ min. at 500 V_{DC}

Withstanding Voltage: 650 V_{AC} for 1 minute

Environmental

Temperature Rating: -55°C to +85°C

Process Rating: 260°C Wave Solder Compatible

UL File No.: E68080



Electronic Solutions Division
Interconnect Solutions
<http://www.3Mconnector.com>

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P50 Series

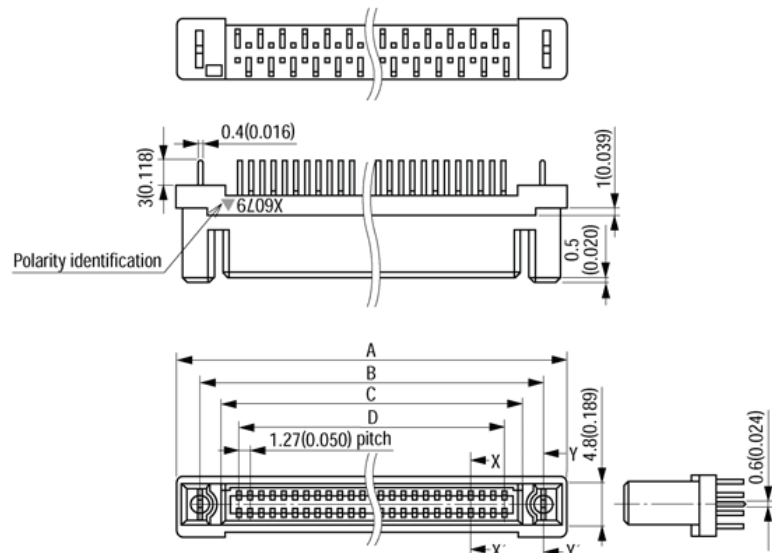
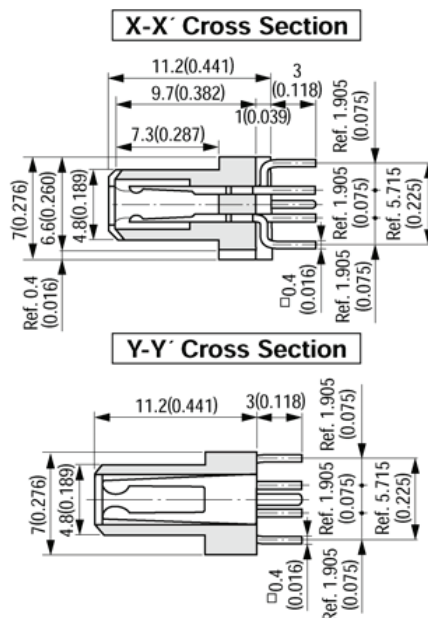
Product Table / Dimensions for Straight and Right Angle Sockets

Contact Quantity	A	B	C	D
20	25.43 [1.001]	20.32 [0.800]	15.43 [0.607]	11.43 [0.450]
26	29.24 [1.151]	24.13 [0.950]	19.24 [0.757]	15.24 [0.600]
30	31.78 [1.251]	26.67 [1.050]	21.78 [0.857]	17.78 [0.700]
32	33.05 [1.301]	27.94 [1.100]	23.05 [0.907]	19.05 [0.750]
34	34.32 [1.351]	29.21 [1.150]	24.32 [0.957]	20.32 [0.800]
40	38.13 [1.501]	33.02 [1.300]	28.13 [1.107]	24.13 [0.950]

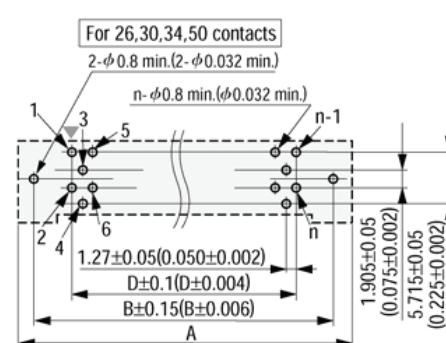
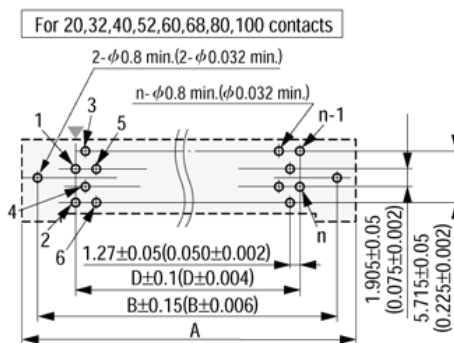
Contact Quantity	A	B	C	D
50	44.48 [1.751]	39.37 [1.550]	34.48 [1.357]	30.48 [1.200]
52	45.75 [1.801]	40.64 [1.593]	35.75 [1.407]	31.75 [1.250]
60	50.83 [2.001]	45.72 [1.800]	40.83 [1.607]	36.83 [1.450]
68	55.91 [2.201]	50.80 [2.000]	45.91 [1.807]	41.91 [1.650]
80	63.53 [2.501]	58.42 [2.300]	53.53 [2.107]	49.53 [1.950]
100	76.23 [3.001]	71.12 [2.800]	66.23 [2.607]	62.23 [2.450]

mm [Inch]		
Tolerance Unless Noted		
	0.0	0.00
mm	± .1	± .10
[] Dimensions used for Reference Only		

Straight



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

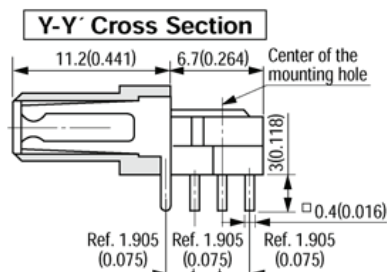
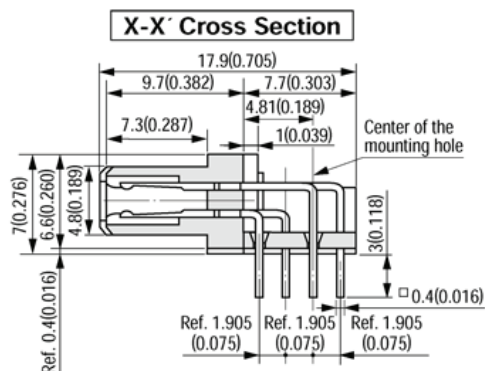
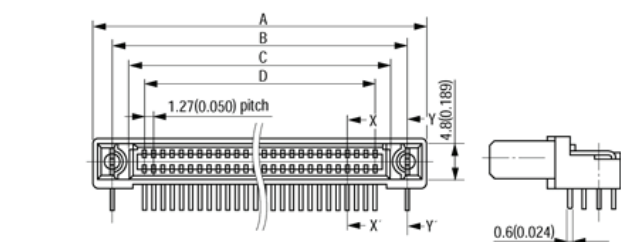


▼=Polarity identification
Recommended PCB Thickness $t=1.6\pm0.19(0.063\pm0.007)$
"n" is number of contacts.

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Sheet 2 of 3

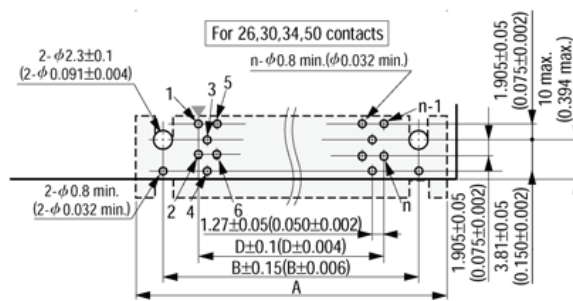
P50 Series

Right Angle



Technical drawing of a contact assembly with the following dimensions and tolerances:

- Top dimension: $2 \cdot \phi 2.3 \pm 0.1$ ($2 \cdot \phi 0.091 \pm 0.004$)
- Top center box: For 20,32,40,52,60,68,80,100 contacts
- Top right dimension: $n \cdot \phi 0.8 \text{ min. } (\phi 0.032 \text{ min.})$
- Left side dimension: $2 \cdot \phi 0.8 \text{ min. } (2 \cdot \phi 0.032 \text{ min.})$
- Bottom center dimension: $1.27 \pm 0.05 (0.050 \pm 0.002)$
- Bottom center dimension: $D \pm 0.1 (D \pm 0.004)$
- Bottom center dimension: $B \pm 0.15 (B \pm 0.006)$
- Bottom dimension: A
- Right side dimensions:
 - 1.905 ± 0.05 (0.075 ± 0.002)
 - 3.81 ± 0.05 (0.150 ± 0.002)
 - 1.905 ± 0.05 (0.075 ± 0.002)
 - 10 max. (0.394 max.)



▼=Polarity identification
Recommended PCB Thickness $t=1.6\pm0.19(0.063\pm0.007)$
"n" is number of contacts.

P50 - XXX SG - XXX - EA (RIA E1 and C1 apply)

Solder Tail Options::
S1 = Straight
SR1 = Right Angle

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Sheet 3 of 3

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