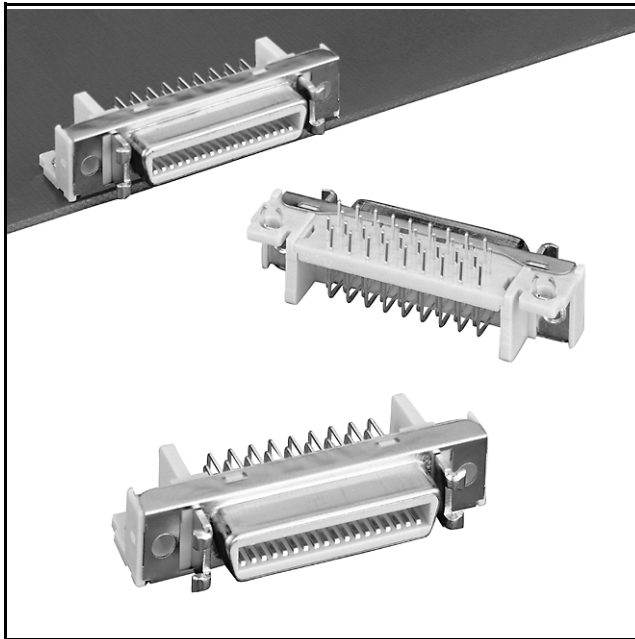


# 3M™ Mini D Ribbon (MDR) Connectors

.050" Boardmount Thru-Hole Right Angle Receptacle - Shielded

102 Series



- Wiper-on-wiper contact for reliable repetitive plugging
- SMT compatible PCT insulator material
- Ground lock PCB retention
- Interface latch design for connection stability
- MDR digital LCD interface as a 20 or 26 contact connector
- Contacts: 14, 20, 26, 36, 40, 50 and 68
- RoHS\* compliant version (-PL or -PC plating suffix) available

Date Modified: April 5, 2005

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## Physical

### Insulation

Material: Glass Reinforced Polyester (PBT)  
Flammability: UL 94V-0  
Color: See ordering information

**Contact Material:** Copper Alloy (C521)

### Plating

Underplating: See ordering information  
Wiping Area: See ordering information  
Solder Tails: See ordering information

### Shroud & Latch Hook

Material: Steel  
Plating: Nickel

### Ground Lock

Material: Copper Alloy  
Plating: Matte tin  
**Marking:** 3M Logo & Part Number

## Electrical

**Current Rating:** 1 A  
**Insulation Resistance:**  $> 5 \times 10^8 \Omega$  at 500 VDC  
**Withstanding Voltage:** 500 Vrms for 1 Minute

## Environmental

**Temperature Rating:** -55°C to +105°C  
**Process Rating:** Surface mount compatible - max. temp. 240°-250°C for 10 seconds.

UL File No.: E68080

\*RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

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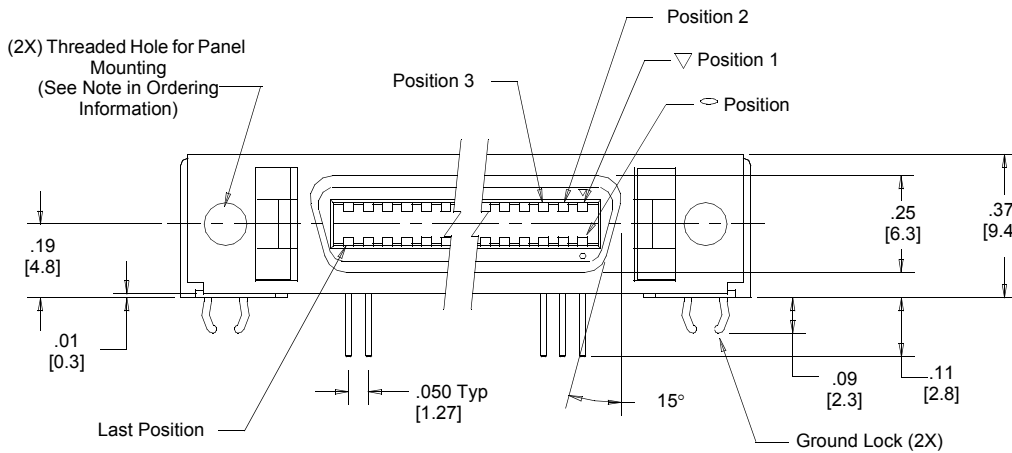
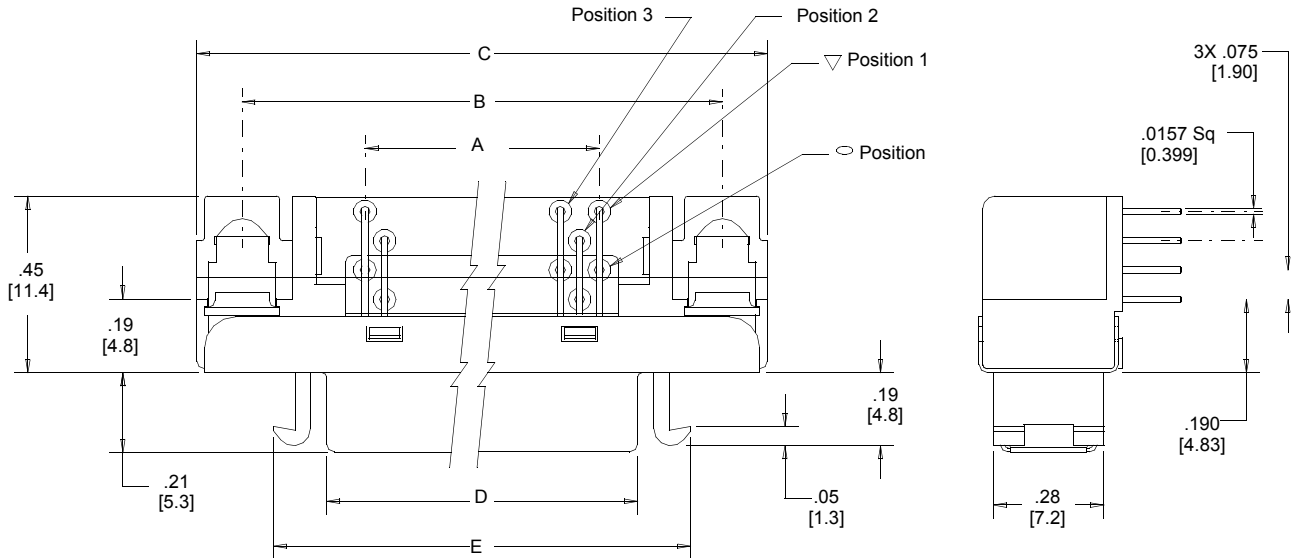
.050" Boardmount Thru-Hole Right Angle Receptacle - Shielded

102 Series

Contact Quantity	Dimensions				
	A	B	C	D	E
14	0.300 [ 7.62 ]	0.93 [ 23.6 ]	1.16 [ 29.5 ]	0.50 [ 12.6 ]	0.77 [ 19.5 ]
20	0.450 [ 11.43 ]	1.08 [ 27.5 ]	1.31 [ 33.4 ]	0.65 [ 16.4 ]	0.92 [ 23.4 ]
26	0.600 [ 15.24 ]	1.23 [ 31.3 ]	1.46 [ 37.2 ]	0.80 [ 20.2 ]	1.07 [ 27.2 ]
36	0.850 [ 21.59 ]	1.48 [ 37.6 ]	1.71 [ 43.5 ]	1.05 [ 26.6 ]	1.32 [ 33.5 ]
40	0.950 [ 24.13 ]	1.58 [ 40.2 ]	1.81 [ 46.1 ]	1.15 [ 29.1 ]	1.42 [ 36.1 ]
50	1.200 [ 30.48 ]	1.83 [ 46.5 ]	2.06 [ 52.4 ]	1.40 [ 35.5 ]	1.67 [ 42.4 ]
68	1.650 [ 41.91 ]	2.28 [ 57.9 ]	2.51 [ 63.8 ]	1.85 [ 46.9 ]	2.12 [ 53.8 ]

Inch			
[mm]			
Tolerance Unless Noted			
	.0	.00	.000
inch	±.1	±.01	±.005

[ ] Dimensions for Reference Only



## Ordering Information

**X102XX-55X3XX**

Connector Material:  
Blank = Beige  
D = Black (20 pos. only)

Contact Quantity:

Wiping area plating:

L = 8 μ" [ 0.2 μm ] Min. Gold over 50 μ" [ 1.27 μm ] Min. Ni.  
C = 30 μ" [ 0.76 μm ] Min. Gold over 100 μ" [ 2.54 μm ] Min. Ni.

Solder tail plating:

J or V = tin-lead over Ni  
P = flash gold over Ni (RoHS compliant)

Panelmount thread size:

G = M2.5 (14, 20, 26, 36, 40 position)  
H = #4-40 (20, 36, 50 & 68 position)

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Note: Must order panelmount screws: 3344-38 for M2.5, 3344-44 for #4-40.

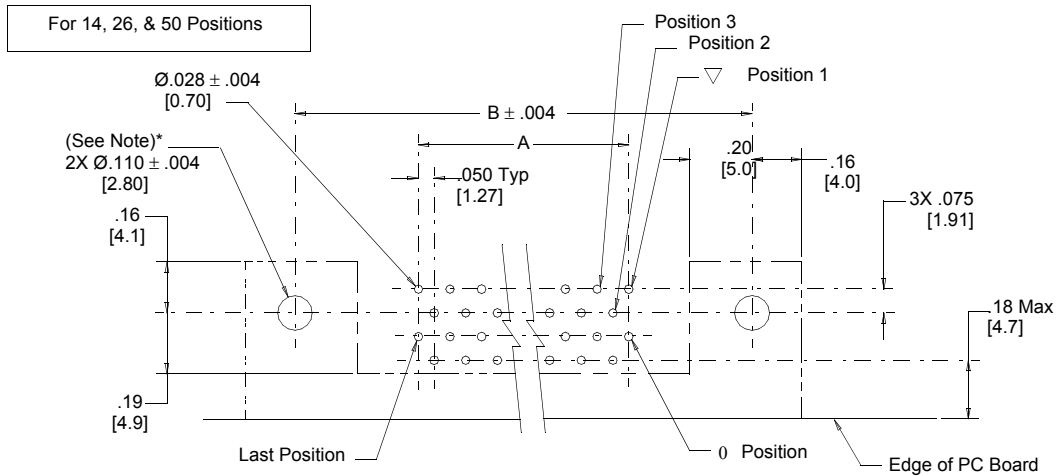
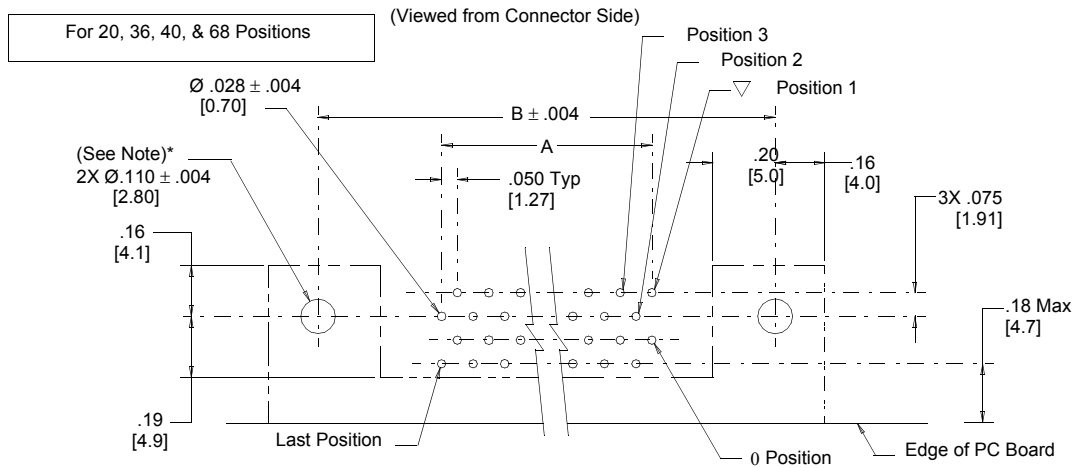
# 3M™ Mini D Ribbon (MDR) Connectors

.050" Boardmount Thru-Hole Right Angle Receptacle - Shielded

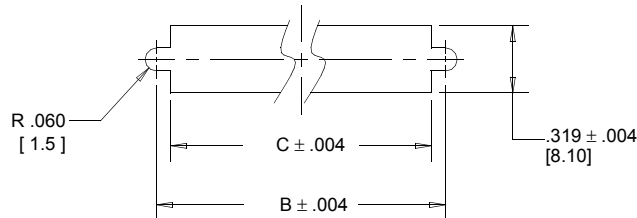
102 Series

Contact Quantity	Dimensions		
	A	B	C
14	.300 [7.62]	.931 [23.64]	.78 [19.9]
20	.450 [11.43]	1.081 [27.45]	.94 [23.8]
26	.600 [15.24]	1.231 [31.26]	1.09 [27.6]
36	.850 [21.59]	1.481 [37.61]	1.33 [33.9]
40	.950 [24.13]	1.581 [40.15]	1.44 [36.5]
50	1.200 [30.48]	1.831 [46.50]	1.69 [42.8]
68	1.650 [41.91]	2.281 [57.93]	2.13 [54.2]

## Recommended Board Layout



\*Note: Plated through holes for .063 board thickness



## Recommended Panel Cut-Out

Note: Panel thickness .079 [2.00] Max.

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