

3M™ Mini D Ribbon (MDR) Connectors

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

102 Series



- Wiper-on-wiper contact for reliable repetitive plugging
- Rugged die cast metal case construction
- SMT compatible PCT insulator material
- Screw or ground lock for reliable PCB retention
- Interface latch design for connection stability
- IEEE 1284C Interface as a 36 contact connector
- Contacts: 14, 20, 26, 36, 40, 50, 68, 80 and 100
- RoHS* compliant version (-PC plating suffix) available

Date Modified: April 5, 2005

TS-0531-13
Sheet 1 of 3

Physical

Insulation

Material: Glass Reinforced Polyester (PCT)
Flammability: UL 94V-0
Color: Beige

Contact

Material: Copper Alloy (C521)

Plating

Underplating: 80 μ " (2.0 μ m) Nickel - QQ-N-290, Class 2
Wiping Area: 30 μ " (0.76 μ m) Min Gold - MIL-G-45204, Type II, Grade C
Solder Tail Plating: See ordering information

Body

Material: Zinc Alloy
Plating: Nickel

Shroud & Latch Hook

Material: Steel
Plating: Nickel

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: Reflow solder process compatible up to 240-250°C for 10 sec.

UL File No.: E68080 *RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment.

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

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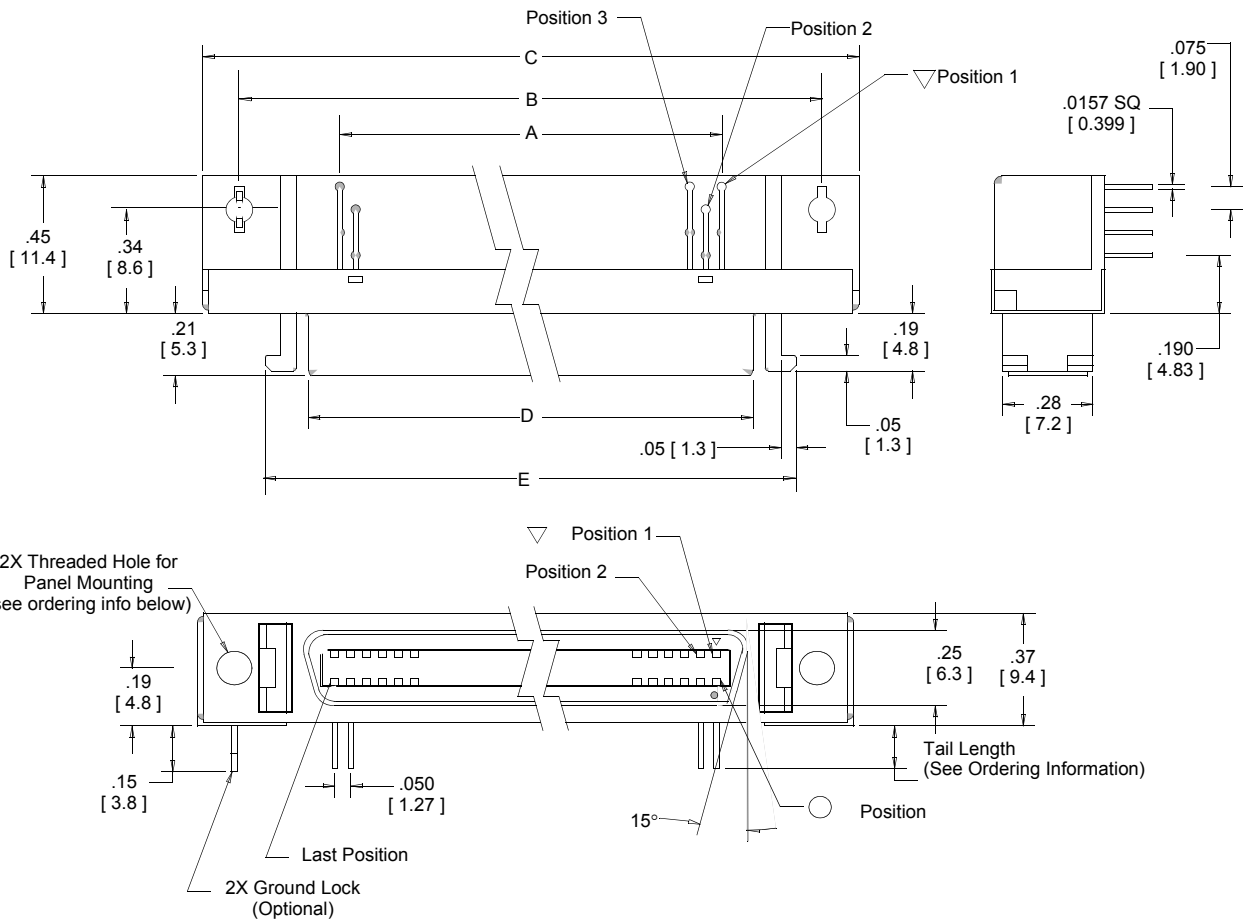
Contact Quantity	Dimensions				
	A	B	C	D	E
14	0.300 [7.62]	0.93 [23.6]	1.16 [29.5]	0.50 [12.6]	0.77 [19.5]
20	0.450 [11.43]	1.08 [27.5]	1.31 [33.4]	0.65 [16.4]	0.92 [23.4]
26	0.600 [15.24]	1.23 [31.3]	1.46 [37.2]	0.80 [20.2]	1.07 [27.2]
36	0.850 [21.59]	1.48 [37.6]	1.71 [43.5]	1.05 [26.6]	1.32 [33.5]
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]
80	1.950 [49.53]	2.58 [65.6]	2.81 [71.5]	2.15 [54.5]	2.42 [61.5]
100	2.450 [62.23]	3.08 [78.3]	3.31 [84.2]	2.65 [67.2]	2.92 [74.2]



Inch
[mm]

Tolerance Unless Noted		
	.0	.00 .000
inch	±.1	±.01 ±.005

[] Dimensions for Reference Only



Ordering Information

N102XX-52XXXC

Contact Quantity
(See Table)
A0 = 100 pos.

Tail Length
2 = .15 [3.9] (Standard)
3 = .11 [2.8] (Special Order)

Solder tail plating:
V = tin-lead over Ni
P = flash gold over Ni (RoHS compliant)

Panel/Board Retention Features
 Contacts 14-40: 1 = M2.5 panel/M2.5 screw lock
 B = M2.5 panel/ground lock
 G = M2.5 panel / with .086 [2.2] ground lock (Special Order see note)
 Contacts 50-100: 4 = 4-40 panel/4-40 screw lock
 E = 4-40 panel/ground lock
 G = 4-40 panel/with .086 [2.2] ground lock (Special Order see note)

Note: Option G is used with the 52X3 Tail length only.

TS-0531-13
Sheet 2 of 3

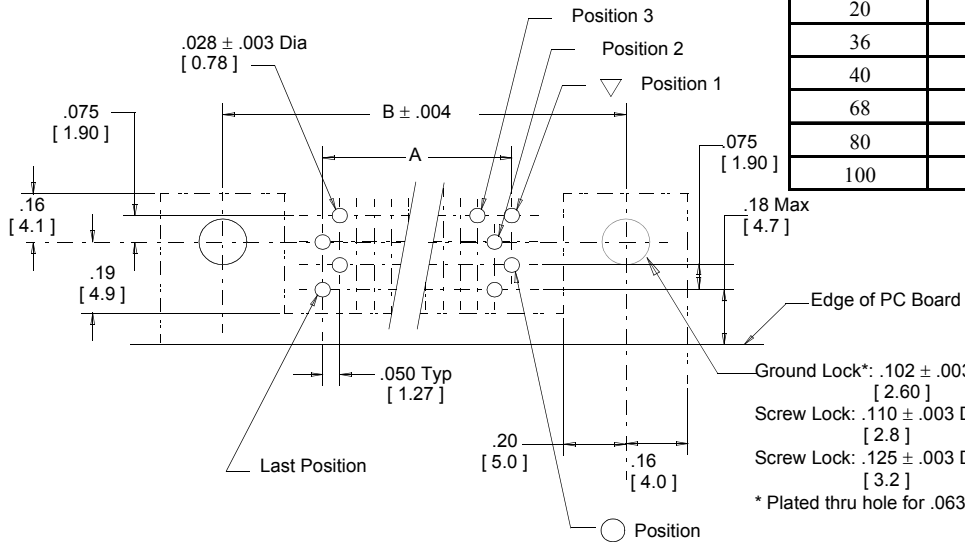
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Recommended Board Layout

(Viewed from Connector Side for 20, 36, 40, 68, 80 and 100 position only)

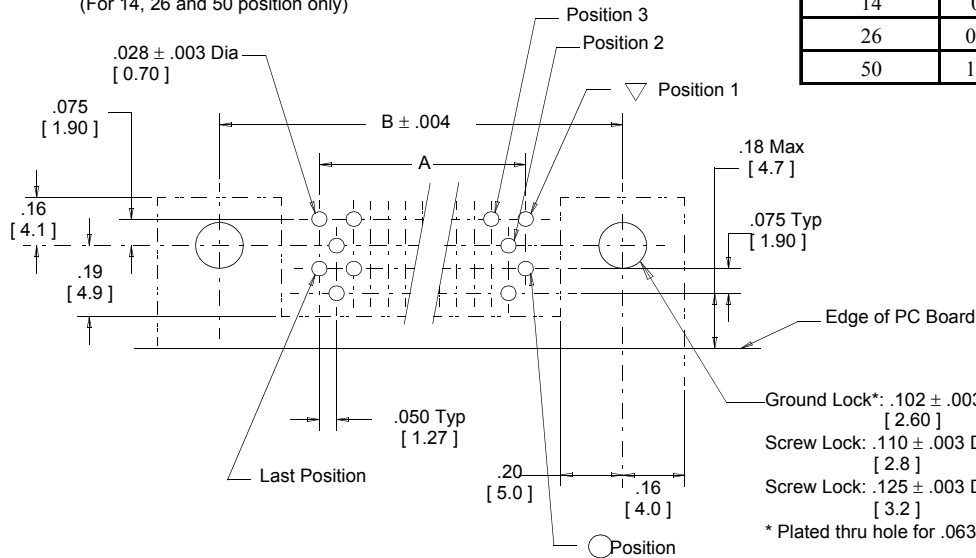


Contact Quantity	Dimensions	
	A	B
20	0.450 [11.43]	1.081 [27.45]
36	0.850 [21.59]	1.481 [37.61]
40	0.950 [24.13]	1.581 [40.15]
68	1.650 [41.91]	2.281 [57.93]
80	1.950 [49.53]	2.581 [65.55]
100	2.450 [62.23]	3.081 [78.25]

Ground Lock*: .102 ± .003 Dia 2X [2.60]
 Screw Lock: .110 ± .003 Dia (14-40 pos) 2X [2.8]
 Screw Lock: .125 ± .003 Dia. (50-100 pos) 2X [3.2]
 * Plated thru hole for .063" board thickness

Recommended Board Layout

(For 14, 26 and 50 position only)

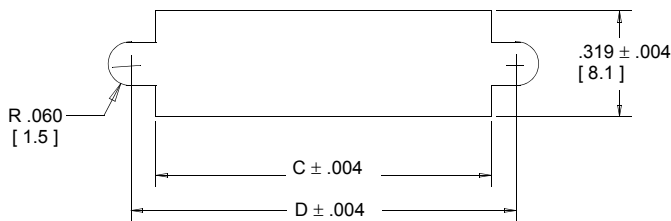


Contact Quantity	Dimensions	
	A	B
14	0.300 [7.62]	0.931 [23.64]
26	0.600 [15.24]	1.231 [31.26]
50	1.200 [30.48]	1.831 [46.50]

Ground Lock*: .102 ± .003 Dia 2X [2.60]
 Screw Lock: .110 ± .003 Dia (14-40 pos) 2X [2.8]
 Screw Lock: .125 ± .003 Dia. (50-100 pos) 2X [3.2]
 * Plated thru hole for .063" board thickness

Recommended Panel Cut-out

Note: Panel thickness .079 [2.00] Max.



Contact Quantity	Dimensions	
	C	D
14	.78 [19.9]	.93 [23.64]
20	.94 [23.8]	1.08 [27.45]
26	1.09 [27.6]	1.23 [31.26]
36	1.33 [33.9]	1.48 [37.61]
40	1.44 [36.5]	1.58 [40.15]
50	1.69 [42.8]	1.83 [46.50]
68	2.13 [54.2]	2.28 [57.93]
80	2.44 [61.9]	2.58 [65.55]
100	2.94 [74.6]	3.08 [78.25]

TS-0531-13
 Sheet 3 of 3

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