

# 3M™ Mini D Ribbon (MDR) Connectors

.050" Surface Mount Right Angle Die-Cast Receptacle – Shielded

102 Series



- Rugged die-cast body resists tipping during automated soldering operations
- Wiper-on-wiper contact for reliable repetitive plugging
- Ultra-low signal skew for high data rate transmission
- Interface latch design for connection stability
- Suitable for thumbscrew attach (see TS-0142 for available hardware)
- MDR digital LCD interface as a 20 or 26 contact connector
- Camera Link® interface as a 26 contact connector
- Contacts: 14, 20, 26, 40 and 50
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3mconnector.com](http://www.3mconnector.com) for compliance information

Date Modified: October 27, 2010

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## Physical

<b>Body Material:</b>	Glass Reinforced Polyester (PCT), Natural Color
Flammability:	UL 94V-0
<b>Alignment Plate Material:</b>	LCP, Natural Color
Flammability:	UL 94V-0
<b>Contact Material:</b>	Copper Alloy
Underplating:	80 μ" [2 μm] Nickel
Wiping Area Plating:	See Ordering Information
Solder Tail Plating:	Flash Gold over Nickel (RIA E1 & C1 apply)
<b>Shroud Material:</b>	Steel
Plating:	Nickel
<b>Lock Stand Material:</b>	Zinc Alloy
Plating:	Nickel

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## Electrical

<b>Current Rating:</b>	1 A
<b>Insulation Resistance:</b>	$>5 \times 10^8 \Omega$ at 500 V <sub>DC</sub>
<b>Withstanding Voltage:</b>	500 V <sub>rms</sub> for 1 minute

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## Environmental

<b>Temperature Rating:</b>	-55 °C to +85 °C
<b>Process Rating:</b>	240°C- 250°C peak temperature for less than 10 secs., 220°C soldering for 30 – 60 secs. after 150°C - 180°C preheat for 90 –120 secs. (reflow two times)

UL File No.: E68080

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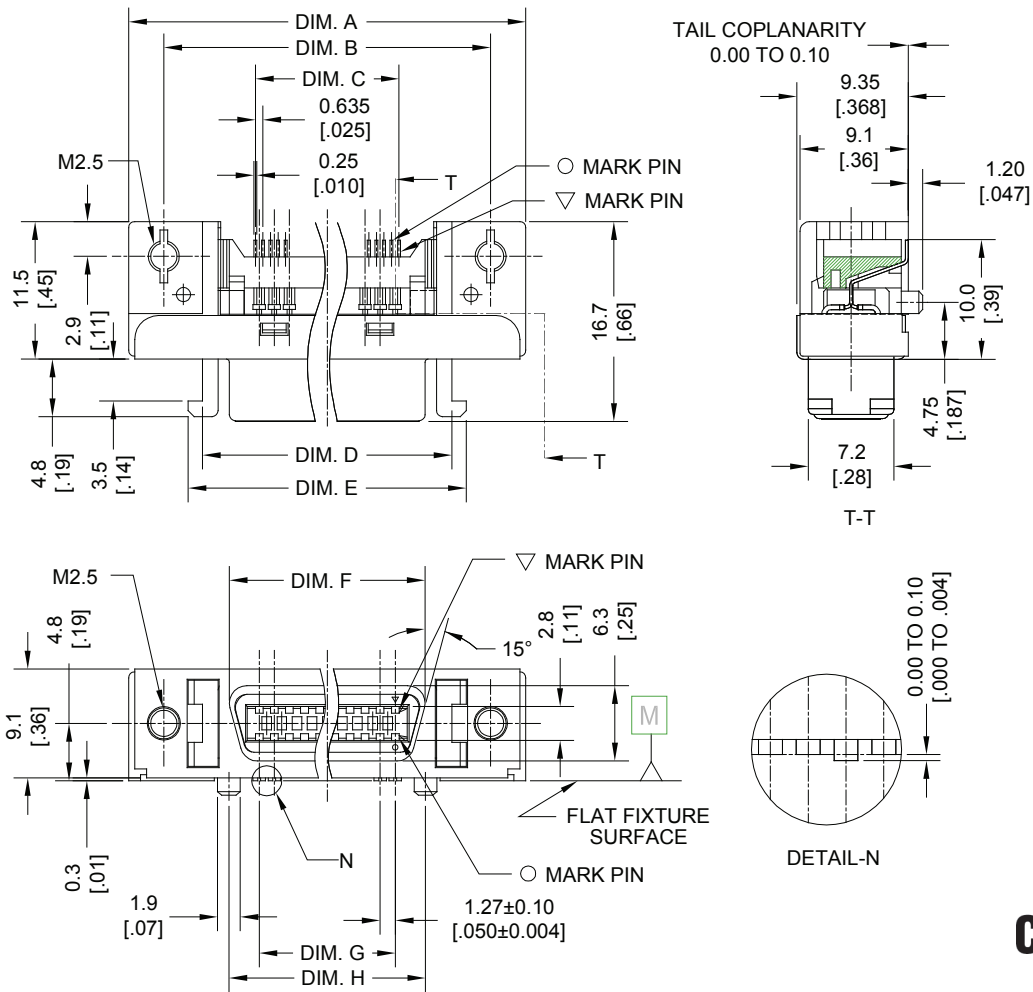
**3M**  
**Interconnect Solutions**  
<http://www.3Mconnector.com>

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**800-225-5373**

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Contact Quantity	DIM A	DIM B	DIM C	DIM D	DIM E	DIM F	DIM G	DIM H
14	29.5 (1.16)	23.64 (.931)	8.255 (.325)	17.1 (.67)	19.5 (.77)	12.6 (.50)	7.62 (.300)	12.70 (.500)
20	33.3 (1.31)	27.45 (1.081)	12.065 (.475)	21.0 (.83)	23.4 (.92)	16.4 (.65)	11.43 (.450)	16.51 (.650)
26	37.2 (1.46)	31.26 (1.231)	15.875 (.625)	24.8 (.98)	27.2 (1.07)	20.2 (.80)	15.24 (.600)	20.32 (.800)
40	46.1 (1.81)	40.15 (1.581)	24.765 (.975)	33.7 (1.33)	36.1 (1.42)	29.1 (1.15)	24.13 (.950)	29.21 (1.150)
50	52.4 (2.06)	46.50 (1.831)	31.115 (1.225)	40.0 (1.57)	42.4 (1.67)	35.5 (1.40)	30.48 (1.200)	35.56 (1.400)

mm  
(inch)

Tolerance Unless Noted			
	.0	.00	.000
mm	±.3	±.15	±.150

( ) Dimensions used for Reference Only

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## Ordering Information

**102XX-1S10 PX**

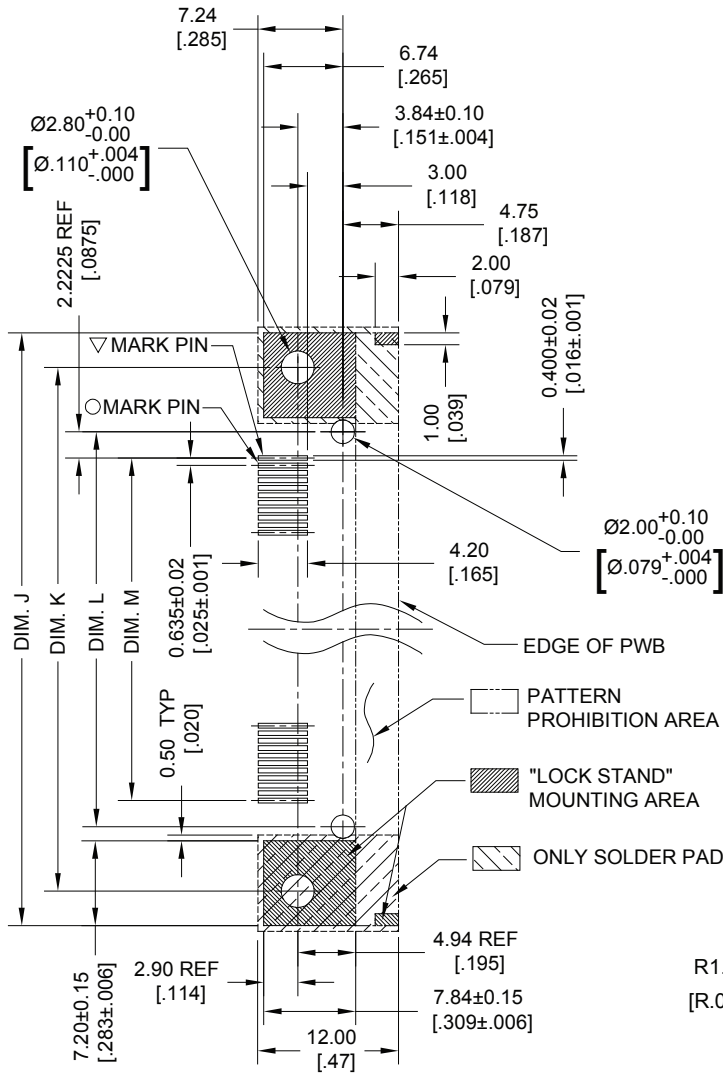
Contact Quantity  
See Table

Wiping Area Plating:  
L = 8 μm min. Gold with Lubricant Treatment  
E = 20 μm min. Gold

# 3M™ Mini D Ribbon (MDR) Connectors

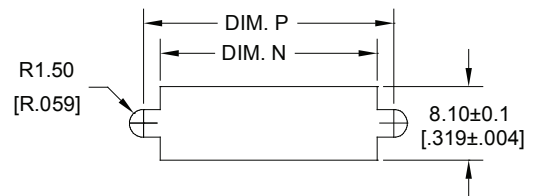
.050" Surface Mount Right Angle Die-Cast Receptacle — Shielded

102 Series



Recommended Board Layout

Viewed from Connector Side



Recommended Panel Cutout

Panel Thickness: 2.0 mm (.08 inch) Max.

Contact Quantity	DIM J	DIM K	DIM L	DIM M	DIM N	DIM P
14	29.5 (1.16)	23.64 (.931)	12.70 (.500)	8.255 (.325)	19.9 (.78)	23.64 .13 (.931)
20	33.3 (1.31)	27.45 (1.081)	16.51 (.650)	12.065 (.475)	23.8 (.94)	27.45 .13 (1.081)
26	37.2 (1.46)	31.26 (1.231)	20.32 (.800)	15.875 (.625)	27.6 (1.09)	31.26 .13 (1.231)
40	46.1 (1.81)	40.15 (1.581)	29.21 (1.150)	24.765 (.975)	36.5 (1.44)	40.15 .13 (1.581)
50	52.4 (2.06)	46.50 (1.831)	35.56 (1.400)	31.115 (1.225)	42.8 (1.69)	46.50 .13 (1.831)

mm  
(inch)

Tolerance Unless Noted			
	.0	.00	.000
mm	±.3	±.05	±.050

( ) Dimensions used for Reference Only

Note: The connector should be mounted to the panel and printed circuit board with screws. See TS-0142 for mounting hardware.

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