# 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 for compliance information

Date Modified: October 27, 2010



## Physical

| | |
|---|---|
| **Body Material**: | Glass Reinforced Polyester (PCT), Natural Color |
| Flammability: | UL 94V-0 |
| **Alignment Plate Material:** | LCP, Natural Color |
| Flammability: | UL 94V-0 |
| **Contact Material:** | 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) |
| **Shroud Material:** | Steel |
| Plating: | Nickel |
| **Lock Stand Material:** | Zinc Alloy |
| Plating: | Nickel |

## Electrical

| | |
|---|---|
| **Current Rating:** | 1 A |
| **Insulation Resistance:** | >5 x $10^8$ Ω at 500 $V_{DC}$ |
| **Withstanding Voltage:** | 500 $V_{rms}$ for 1 minute |

## Environmental

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

Camera Link® is a trademark of Automated Imaging Association



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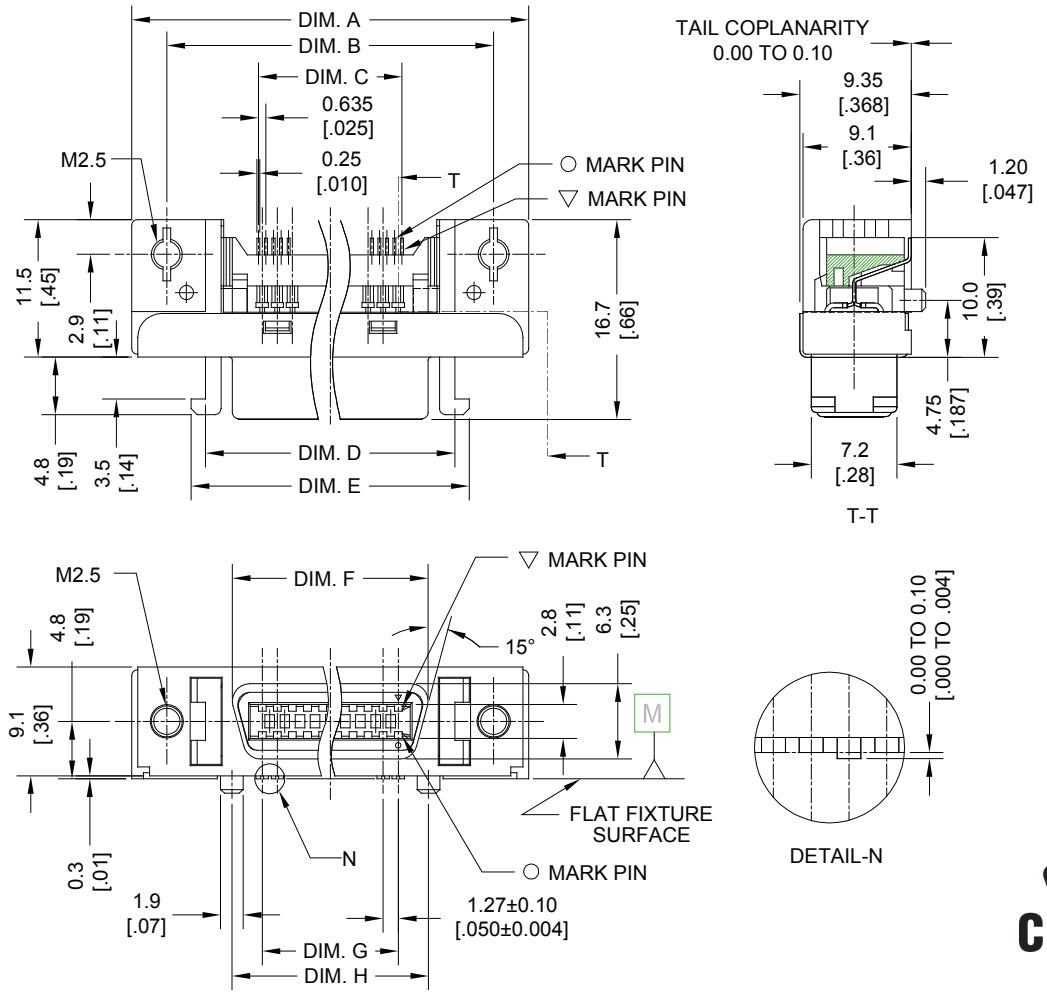


| Contact Quantity | DIM A | DIM B | DIM C | DIM D | DIM E | DIM F | DIM G | DIM H |
|---|---|---|---|---|---|---|---|---|
| 14 | 29.5 (1.16) | 23.64 (.931) | 8.255 (.325) | 17.1 (.67) | 19.5 (.77) | 12.6 (.50) | 7.62 (.300) | 12.70 (.500) |
| 20 | 33.3 (1.31) | 27.45 (1.081) | 12.065 (.475) | 21.0 (.83) | 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



## Ordering Information

**102XX-1S10 PX**

Contact Quantity
See Table

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



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For technical, sales or ordering information call
**800-225-5373**

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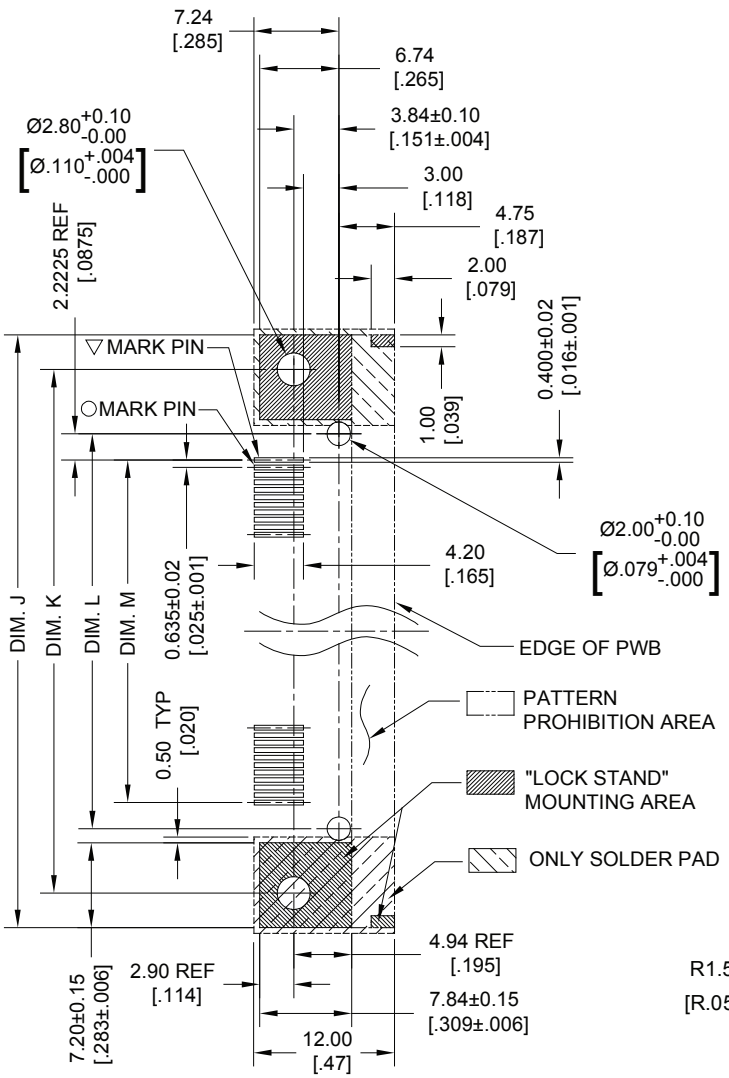
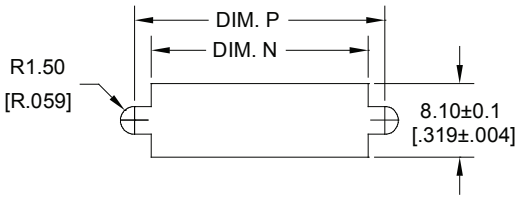



Recommended Board Layout

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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