

# 3M™ Mini D Ribbon (MDR) Cable Assembly

.050" High Speed Digital Data Transmission System - 26 Position

14X26-SZLB-XXX-0LC



- Supports Industrial CameraLink™ in Automated Imaging Association for camera to frame grabber communications
- 11 shielded twin-ax pairs and four drain wires
- Entire cable bundle is shielded with foil and braid for additional signal protection
- Rugged MDR ribbon type contact
- Rugged thumbscrew retention
- EMI shielded junction shell in either plastic or overmolded construction
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information (RIA E1 & C1 apply)

Date Modified: May 18, 2011

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## Physical

### Connector Contact Plating

Wiping Area: 30  $\mu$ " [ 0.76  $\mu$ m ] Min. Gold

Shell Color: Beige

Shell Material: Overmold Option: Polyvinyl Chloride (PVC);  
Shell Kit Option: Polyester Elastomer

Cable Color: Beige

Cable Jacket Material: Polyvinyl Chloride (PVC)

Cable Flammability: AWM VW-1

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## Electrical

**Voltage Rating:** 30 V

**Current Rating:** 1 A

**Insulation Resistance:**  $> 1 \times 10^8 \Omega$  at @ 100 V<sub>DC</sub>

**Withstanding Voltage:** 350 V<sub>rms</sub> for 1 minute

### Individually Shielded Twisted Pairs

Characteristic Impedance: 100  $\pm$  10 $\Omega$

Conductor Size: 28 AWG Stranded

Propagation Velocity: 1.25 ns/ft [4.1 ns/m ]

Skew (within pair): 50 ps/meter maximum

Skew (channel skew per chipset): 50 ps/meter maximum

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## Environmental

**Temperature Rating:** -20°C to +75°C

UL File No.: E86982

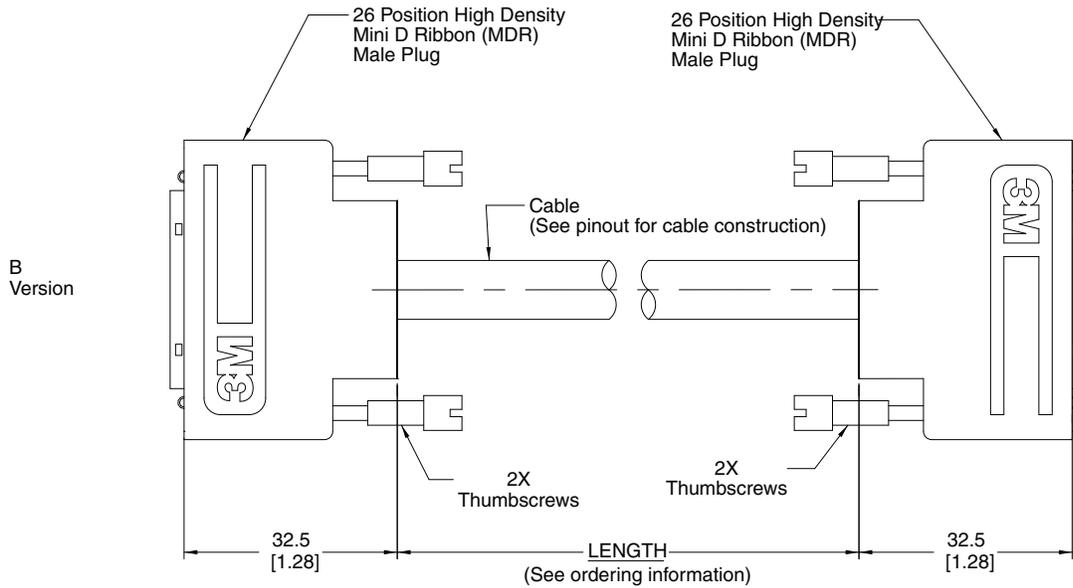
CameraLink is a trademark of the Automated Imaging Association.

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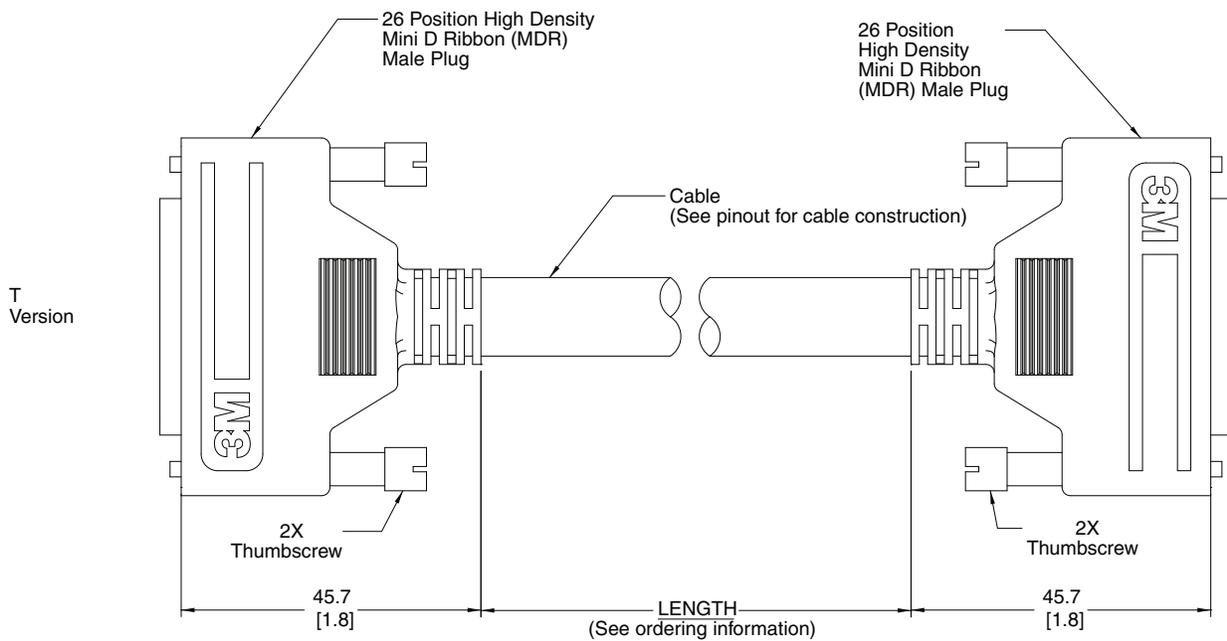
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## Discrete #4 - 40 Thumbscrew Shell Kit



## Overmold #4 - 40 Thumbscrew Shell



mm  
[Inch]

Tolerance Unless Noted		
	0.0	0.00
mm	±.1	±.01

[ ] Dimensions for Reference only



Assembly Length Tolerance	
Cable Length	Tolerance
0.5 to 1.5 meters	-0 + .05 meters
2 to 10 meters	-0 +3% of length

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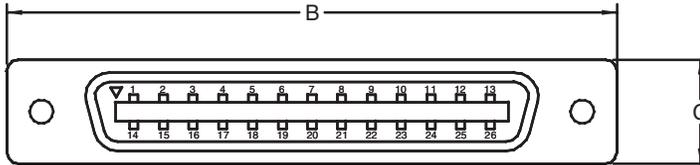
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mm  
[Inch]

Tolerance Unless Noted		
	0.0	0.00
mm	±.1	±.01

[ ] Dimensions for Reference only



Generic End Detail  
MDR 26 Position Plug  
(Both Ends)



Shell Option (see ordering information)	Dimensions	
	B	C
T = Overmold #4-40 Thumbscrew Shell	40.2 [ 1.58 ]	14.0 [ .55 ]
B = Discrete #4-40 Thumbscrew Shell Kit	39.4 [ 1.55 ]	12.8 [ .51 ]

## Ordering Information

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Shell Retention Options:

B = Discrete #4-40 Thumbscrew shell kit

T = Overmold #4-40 Thumbscrew shell

Length:

050 = 0.5 meters	450 = 4.5 meters
100 = 1 meters	500 = 5 meters
150 = 1.5 meters	600 = 6 meters
200 = 2 meters	700 = 7 meters
250 = 2.5 meters	800 = 8 meters
300 = 3 meters	900 = 9 meters
350 = 3.5 meters	A00 = 10 meters
400 = 4 meters	

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# 3M™ Mini D Ribbon (MDR) Cable Assembly

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Cable Assembly and Camera Link Pinouts						
Medium and Full Configurations				Base Configuration		
Two Channel Link Chips				One Channel Link Chip + Camera Control + Serial Communication		
Camera Connector	Frame Grabber Connector	Channel Link Signal	Cable Name (Reference only)	Camera Connector	Frame Grabber Connector	Channel Link Signal
1	1	inner shield	inner shield	1	1	inner shield
14	14	inner shield	inner shield	14	14	inner shield
2	25	Y0-	Pair 1-	2	25	X0-
15	12	Y0+	Pair 1+	15	12	X0+
3	24	Y1-	Pair 2-	3	24	X1-
16	11	Y1+	Pair 2+	16	11	X1+
4	23	Y2-	Pair 3-	4	23	X2-
17	10	Y2+	Pair 3+	17	10	X2+
5	22	Yclk-	Pair 4-	5	22	Xclk-
18	9	Yclk+	Pair 4+	18	9	Xclk+
6	21	Y3-	Pair 5-	6	21	X3-
19	8	Y3+	Pair 5+	19	8	X3+
7	20	100 ohm	Pair 6+	7	20	SerTC+
20	7	terminated	Pair 6-	20	7	SerTC-
8	19	Z0-	Pair 7-	8	19	SerTFG-
21	6	Z0+	Pair 7+	21	6	SerTFG+
9	18	Z1-	Pair 8-	9	18	CC1-
22	5	Z1+	Pair 8+	22	5	CC1+
10	17	Z2-	Pair 9+	10	17	CC2+
23	4	Z2+	Pair 9-	23	4	CC2-
11	16	Zclk-	Pair 10-	11	16	CC3-
24	3	Zclk+	Pair 10+	24	3	CC3+
12	15	Z3-	Pair 11+	12	15	CC4+
25	2	Z3+	Pair 11-	25	2	CC4-
13	13	inner shield	inner shield	13	13	inner shield
26	26	inner shield	inner shield	26	26	inner shield

Notes:

1. All pairs are individually shielded with aluminum foil.
2. Pair shields are wrapped aluminum out and are in contact with four internal drains (logic ground).
3. Outer braid and foil (chassis ground) are isolated from inner drains (logic ground).
4. Cable assembly compatible with Camera Link Base, Medium and Full configurations.

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