

# 3M Mini D Ribbon (MDR) Connectors

Dimensions in Inches (mm)

A

**Fig. 1 — IDC Wiremount**

• Glass Reinforced Polyester (PBT) • UL 94V-0  
• Wiping Area: 30µ" minimum Gold • Wire Accommodation: Gray, 26AWG Solid, Black, 28AWG Stranded, 30AWG Solid • IEEE 1284C Interface as a 36 Contact Connector

**Fig. 2 — Solder Connector**

• Glass Reinforced Polyester (PCT) • UL 94V-0 • Wiping Area: 20µ" minimum Gold • Solder Area: Tin-Lead • Wire Accommodation: 24, 26, 28 and 30AWG  
**Note:** Use only unshielded backshell 103xx-52F0-008 or 103xx-52A0-008

**Fig. 3 — Boardmount Thru-Hole Right Angle**

• Glass Reinforced Polyester (PCT) • UL 94V-0 • Wiping Area: 30µ" minimum Gold • IEEE 1284C Interface as a 36 Contact Connector

**Fig. 4 — IDC Wiremount Panelmount**

• Glass Reinforced Polyester (PBT) • UL 94V-0 • Wiping Area: 30µ" minimum Gold • Wire Accommodation: 28AWG Stranded, 30AWG Solid • IEEE 1284C Interface as a 36 Contact Connector • Interface latch

**Fig. 5 — Boardmount Thru-Hole Right Angle**

• Glass Reinforced Polyester (PBT) • UL 94V-0 • Wiping Area: 30µ" minimum Gold • Interface latch

**Fig. 6 — Boardmount Thru-Hole Vertical**

• Glass Reinforced Polyester (PBT) • UL 94V-0 • Wiping Area: 30µ" minimum Gold • IEEE 1284C Interface as a 36 Contact Connector • Interface latch

**Fig. 7 — Surface Mount Right Angle**

• Glass Reinforced Polyester (PCT) • UL 94V-0 • Wiping Area: 20µ" minimum Gold • Interface latch

**Fig. 8 — Surface Mount Right Angle**

• Glass Reinforced Polyester (PCT) • UL 94V-0 • Wiping Area: 20µ" minimum Gold • Interface latch

**Fig. 9 — Boardmount Compliant Pin Vertical**

• Glass Reinforced Polyester (PBT) • UL 94V-0 • Wiping Area: 30µ" minimum Gold • Tails: Gold Flash

**Fig. 10 — Plastic Shielded Junction Shell for Round Cable**

• Outer Shell Material: ABS • UL 94V-0 • Inner Shell Material: Steel, .020" • Plating: Nickel

**Fig. 11 — Plastic Solder Junction Shell, Non-Shielded**

• Glass Reinforced Polyester (PBT) • UL 94V-0 • Quick release metal latching mechanism

**Fig. 12 — Metal Junction Shell for Round Cable**

• Material: Aluminum, .050" • Plating: Nickel

**Fig. 13 — 60° Metal Junction Shell for Round Cable**

• Material: Aluminum, .050" • Plating: Nickel

**Fig. 14 — MDR Cable Assembly Plug**

Dimension A = Length (from Strain Relief to Strain Relief)

**Fig. 15 — Rugged Thumb-screw Retention and EMI Shielded Junction Shell**

Dimension A = Length (from Strain Relief to Strain Relief)

**Fig. 16 — Rugged Thumbscrew Retention and EMI Shielded Junction Shell**

Dimension A = Length (from Strain Relief to Strain Relief)

**Fig. 17 — I/O Mounting Hardware**

3M #	A	B	C	D
3341-10	.35(8.9)	M2.5	.30(7.6)	230 DP
3341-16	.35(8.9)	#4-40	.30(7.6)	230 DP
3341-17	.35(8.9)	#4-40	.30(7.6)	230 DP
3341-13	.35(8.9)	M2.5	.30(7.6)	230 DP
3341-25	.41(10.5)	M2.5	.12(3.0)	120 DP
3341-31	.40(10.2)	M2.5	.15(3.8)	100 DP
3341-32	.50(12.5)	M2.5	.30(7.6)	.203 DP

• Material: Stainless Steel • Plating: Passivated

**Fig. 18 — Board Lock and Panel Mounting Screws**

3M #	A
3344-26	M2.6 x 8mm
3344-3	M2.5 x 6mm
3344-38	M2.5 x 8mm
3344-4	#4-40 x 1/4
3344-44	#4-40 x 3/8

• Material: Steel • Plating: Zinc

Fig.	Color	No. of Pos.	Dim. A In. (mm)	Digi-Key Part No.	1	Price Each 10	250	3M Part No.	
<b>Plugs — Shielded, .050" — RoHS Compliant</b>									
1	Black	14	.72 (18.2)	MPB14A-ND	3.54	2.98	2.69	2.55	10114-6000EC
		20	.87 (22.0)	MPB20A-ND	3.65	3.08	2.78	2.64	10120-6000EC
		26	1.02 (25.8)	MPB26A-ND	3.78	3.18	2.87	2.73	10126-6000EC
		36	1.27 (32.2)	MPB36A-ND	4.53	3.82	3.45	3.27	10136-6000EC
		40	1.37 (34.7)	MPB40A-ND	4.68	3.94	3.56	3.38	10140-6000EC
	Gray	14	1.62 (41.1)	MPB50A-ND	4.99	4.21	3.80	3.61	10150-6000EC
		68	2.07 (52.5)	MPB68A-ND	5.13	4.32	3.91	3.71	10168-6000EC
		80	2.37 (60.1)	MPB80A-ND	6.24	5.25	4.74	4.50	10180-6000EC
		100	2.87 (72.8)	MPB100A-ND	7.41	6.24	5.64	5.35	101A0-6000EC
		68	2.07 (52.5)	MPA68A-ND	4.71	3.97	3.58	3.40	10168-6010EC
2	Black	14	.72 (18.2)	3M1767-ND	4.65	3.92	3.54	3.36	10114-3000PE
		20	.87 (22.0)	3M1768-ND	5.06	4.26	3.85	3.65	10120-3000PE
		26	1.02 (25.8)	3M1769-ND	5.65	4.76	4.30	4.08	10126-3000PE
		36	1.27 (32.2)	3M1770-ND	6.00	5.05	4.56	4.33	10136-3000PE
		40	1.37 (34.7)	3M1771-ND	6.28	5.29	4.78	4.54	10140-3000PE
	Beige	14	1.62 (41.1)	3M1772-ND	6.78	5.71	5.16	4.89	10150-3000PE
		20	1.31 (33.3)	3M1806-ND	9.90	8.34	7.53	7.15	10120-52B2PC
		26	1.46 (37.2)	3M1807-ND	10.27	8.64	7.81	7.41	10126-52B2PC
		36	1.71 (43.5)	3M1808-ND	10.64	8.96	8.09	7.68	10136-52B2PC
		50	2.06 (52.4)	3M1809-ND	11.12	9.36	8.45	8.02	10150-52B2PC
<b>Receptacles — Shielded, .050"</b>									
4	Black	20	1.31 (33.4)	MRB20A-ND	6.45	5.43	4.90	4.65	10220-0210EC
		26	1.46 (37.2)	MRB26A-ND	6.98	5.87	5.30	5.04	10226-0210EC
		36	1.71 (43.5)	MRB36A-ND	7.82	6.59	5.95	5.65	10236-0210EC
		40	1.81 (46.1)	MRB40A-ND	8.22	6.92	6.25	5.93	10240-0210EC
		50	2.06 (52.4)	MRB50A-ND	9.09	7.65	6.91	6.56	10250-0210EC
	Beige	68	2.51 (63.8)	MRB68A-ND	10.61	8.94	8.07	7.66	10268-0210EC
		14	1.16 (29.6)	3M1811-ND	3.05	2.57	2.32	2.20	10214-55G3PC
		20	1.31 (33.4)	3M1814-ND	2.70	2.28	2.06	1.95	10220-55G3PC
		26	1.46 (37.2)	3M1815-ND	3.17	2.67	2.41	2.29	10226-55H3PC
		36	1.71 (43.5)	3M1818-ND	2.93	2.47	2.23	2.12	10226-55G3PC
5	Beige	36	1.71 (43.5)	3M1820-ND	3.22	2.71	2.45	2.32	10236-55G3PC
		40	1.81 (46.1)	3M1821-ND	3.22	2.71	2.45	2.32	10236-55H3PC
		50	2.06 (52.4)	3M1824-ND	3.99	3.36	3.03	2.88	10240-55G3PC
		68	2.51 (63.8)	3M1766-ND	3.78	3.18	2.87	2.73	10250-55H3PC
		68	2.51 (63.8)	3M1828-ND	4.91	4.13	3.73	3.54	10268-55H3PC
	Black	68	2.51 (63.8)	3M1822-ND	7.86	6.61	5.97	5.67	10268-5JBEPCC
		14	1.16 (29.5)	3M1812-ND	3.29	2.77	2.51	2.38	10214-6212PC
		20	1.31 (33.4)	3M1816-ND	3.46	2.91	2.63	2.50	10220-6212PC
		26	1.46 (37.2)	3M1819-ND	3.58	3.02	2.72	2.59	10226-6212PC
		36	1.71 (43.5)	3M1822-ND	3.69	3.10	2.80	2.66	10236-6212PC
6	Black	40	1.81 (46.1)	3M1724-ND	3.70	3.12	2.82	2.67	10240-6212VC

Fig.	Color	No. of Pos.	Dim. A In. (mm)	Digi-Key Part No.	1	Price Each 10	250	3M Part No.		
6	Black	40	1.81 (46.1)	3M1825-ND	3.85	3.24	2.93	2.78	10240-6212PC	
		50	2.06 (52.4)	3M1827-ND	4.08	3.43	3.10	2.95	10250-6212PC	
		68	2.51 (63.8)	3M1829-ND	4.77	4.02	3.63	3.45	10268-6212PC	
		80	2.81 (71.5)	3M1830-ND	6.43	5.42	4.89	4.64	10280-6212PC	
		100	3.31 (84.2)	3M1831-ND	6.88	5.80	5.24	4.97	102A0-6212PC	
	7	Beige	14	1.16 (29.5)	3M1810-ND	5.50	4.63	4.18	3.97	10214-1210PE
			20	1.32 (33.4)	3M1813-ND	5.62	4.73	4.27	4.06	10220-1210PE
			26	1.50 (38.2)	3M1731-ND	5.62	4.73	4.27	4.06	10226-1210PE
			26	1.50 (38.2)	3M1817-ND	5.84	4.92	4.44	4.22	10226-1210PE
			40	1.85 (47.1)	3M1823-ND	6.75	5.68	5.13	4.87	10240-1210PE
8	Beige	50	2.06 (52.4)	3M1733-ND	6.80	5.72	5.17	4.91	10250-1210PE	
		50	2.06 (52.4)	3M1826-ND	7.06	5.95	5.37	5.10	10250-1210PE	
		14	1.16 (29.5)	3M6469-ND	5.87	4.95	4.47	4.24	10214-1S10PE	
		20	1.31 (33.3)	3M6470-ND	6.00	5.05	4.56	4.33	10220-1S10PE	
		26	1.46 (37.2)	3M6471-ND	6.24	5.25	4.74	4.50	10226-1S10PE	
	9	Black	40	1.81 (46.1)	3M6472-ND	7.20	6.07	5.48	5.20	10240-1S10PE
			50	2.06 (52.4)	3M6473-ND	7.55	6.36	5.74	5.45	10250-1S10PE
			14	1.16 (29.5)	3M1734-ND	6.31	5.32	4.80	4.56	10214-R21TS
			36	1.71 (43.5)	3M1735-ND	6.67	5.62	5.08	4.82	10236-R21TS
			40	1.81 (46.1)	3M1736-ND	6.80	5.72	5.17	4.91	10240-R21TS
10	Beige	68	2.51 (63.8)	3M1737-ND	7.91	6.66	6.02	5.71	10268-R21TS	
		80	2.81 (71.5)	3M1738-ND	10.78	9.08	8.20	7.78	10280-R21TS	
		<b>Connector Junction Shells — .050" — RoHS Compliant</b>								
		14	1.02 (25.9)	3M1739-ND	3.40	2.86	2.59	2.46	10314-3210-000	
		20	1.17 (29.7)	3M1740-ND	2.95	2.48	2.24	2.13	10320-3210-000	
	11	Black	26	1.32 (33.5)	3M1741-ND	3.01	2.53	2.29	2.17	10326-3210-000
			36	1.57 (39.8)	3M1742-ND	3.06	2.58	2.33	2.22	10336-3210-000
			40	1.67 (42.4)	3M1765-ND	3.47	2.93	2.64	2.51	10340-3210-000
			50	1.92 (48.7)	3M1743-ND	3.16	2.66	2.40	2.28	10350-3210-000
			68	2.37 (60.1)	3M1744-ND	3.23	2.72	2.46	2.34	10368-3210-000
12		—	14	1.16 (29.5)	3M1745-ND	5.07	4.27	3.86	3.66	10314-A220-008
			20	1.31 (33.3)	3M1746-ND	5.23	4.40	3.97	3.77	10320-A220-008
			26	1.46 (37.2)	3M1747-ND	5.37	4.53	4.09	3.88	10326-A220-008
			36	1.71 (43.5)	3M1748-ND	5.44	4.58	4.13	3.93	10336-A220-008
			50	2.06 (52.4)	3M1749-ND	5.59	4.71	4.25	4.03	10350-A220-008
12	—	14	1.01 (25.8)	3M1750-ND	8.28	6.97	6.29	5.97	10314-A200-000	
		20	1.17 (29.7)	3M1751-ND	7.37	6.20	5.60	5.32	10320-A200-000	
		26	1.32 (33.5)	3M1752-ND	7.93	6.67	6.03	5.72	10326-A200-000	
		36	1.57 (39.8)	3M1753-ND	8.38	7.06	6.37	6.05	10336-A200-000	
		40	1.67 (42.4)	3M1754-ND	8.99	7.56	6.83	6.48	10340-A200-000	
50	1.92 (48.7)	3M1755-ND	9.37	7.88	7.12	6.76	10350-A200-000			

♦ RoHS Compliant ‡ Over-molded 4-40 thumbscrew  
Δ Discrete 4-40 thumbscrew shell kit

(Continued)

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