

# Cable to Cable

.050"

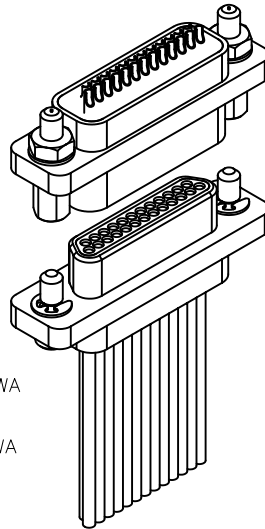
9 thru 100 Contacts

Rugged Metal

**MM**

Rugged Plastic

**MN**

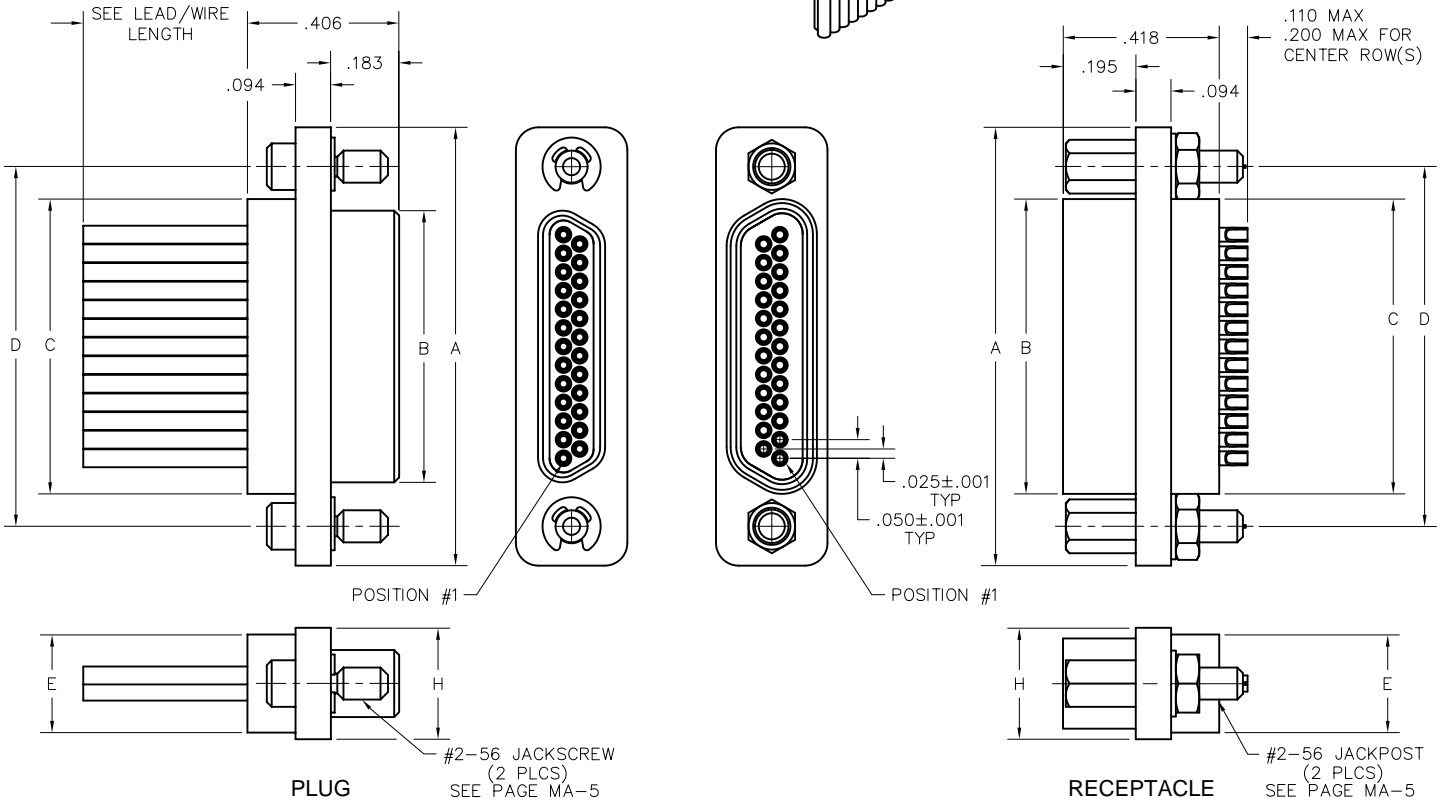


MM-223-025-2A3-2200  
(METAL)

MN-221-025-2A3-2200  
(PLASTIC)

MM-212-025-161-41WA  
(METAL)

MN-211-025-161-41WA  
(PLASTIC)



DIMENSIONS									
SIZE	CONTACT ROWS	A	B		C	D	E	H	HARDWARE
			PLUG MAX	RCPT MAX					
9	2	.775	.334	.400	.390	.565	.270	.298	#2-56 UNC THD (.092 DIA THRU)
15		.925	.484	.550	.540	.715			
21		1.075	.634	.700	.690	.865			
25		1.175	.734	.800	.790	.965			
31		1.325	.884	.950	.940	1.115			
37		1.475	1.034	1.100	1.090	1.265			
51**		1.825	1.384	1.450	1.440	1.615			
51	3	1.425	.984	1.050	1.040	1.215	.310	.341	#4-40 UNC THD (.147 DIA THRU)
69		1.725	1.284	1.350	1.340	1.515			
100	4	2.160	1.384	1.508	1.432	1.800	.360	.384	#4-40 UNC THD (.147 DIA THRU)

\* = 69 POSITION CONNECTORS ARE AVAILABLE IN METAL ONLY.  
\*\* = 2 ROW, 51 POSITION CONNECTORS ARE AVAILABLE IN METAL ONLY,  
(NON MIL-SPEC INTERFACE).

**PLUG:** MM-212-031-161-41WA  
**RECEPTACLE:** MM-222-031-2G3-4500  
**PLUG:** MN-211-031-161-41WA  
**RECEPTACLE:** MN-221-031-2G3-4500  
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG		RECEPTACLE	
<b>SERIES</b>			
MM .050" Rugged Metal I/O Connector	MM .050" Rugged Metal I/O Connector	MN .050" Rugged Plastic I/O Connector	MN .050" Rugged Plastic I/O Connector
(MM & MN mate with MK, ML, MM, MN receptacles)		(MM & MN mate with MK, ML, MM, MN plugs)	
<b>BODY</b>			
2 2-Row (Sizes 9 thru 51****)	2 2-Row (Sizes 9 thru 51****)	3 3-Row (Size 51 & 69****)	3 3-Row (Size 51 & 69****)
4 4-Row (Size 100)	4 4-Row (Size 100)		
<b>BODY STYLE:</b>		<b>BODY STYLE:</b>	
1 Plug, straight, with ears		2 Receptacle, straight, with ears	
<b>BODY MATERIAL:</b>		<b>BODY MATERIAL:</b>	
1 Polyphenylene Sulfide (MN only)	1 Polyphenylene Sulfide (MN only)	2 Polyphenylene Sulfide with electroless nickel shell	2 Polyphenylene Sulfide with electroless nickel shell
3 Polyphenylene Sulfide with electroless nickel shell	3 Polyphenylene Sulfide with electroless nickel shell	3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/>	3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/>
4 Polyphenylene Sulfide with hard anodized black shell	4 Polyphenylene Sulfide with hard anodized black shell	5 Polyphenylene Sulfide with stainless steel shell	5 Polyphenylene Sulfide with stainless steel shell
<b>SIZE</b>			
XXX 009, 015, 021, 025, 031, 037, 051****, 069****, 100		XXX 009, 015, 021, 025, 031, 037, 051****, 069****, 100	
<b>CONTACTS</b>			
<b>TYPE CONTACTS/TERMINATIONS:</b>		<b>TYPE CONTACTS/TERMINATIONS:</b>	
11 Pin, straight, 26 awg solder cup	21 Socket, straight, 26 awg solder cup	1A Pin, straight, 24 awg solder cup	2A Socket, straight, 24 awg solder cup
1D Pin, straight, .109" Lead Length (.018 dia) SEE NOTE 1	2D Socket, straight, .109" Lead Length (.018 dia)	1E Pin, straight, .125" Lead Length (.018 dia) SEE NOTE 1	2E Socket, straight, .125" Lead Length (.018 dia)
1F Pin, straight, .140" Lead Length (.018 dia) SEE NOTE 1	2F Socket, straight, .140" Lead Length (.018 dia)	12 Pin, straight, .150" Lead Length (.018 dia) SEE NOTE 1	22 Socket, straight, .150" Lead Length (.018 dia)
1G Pin, straight, .156" Lead Length (.018 dia) SEE NOTE 1	2G Socket, straight, .156" Lead Length (.018 dia)	1H Pin, straight, .172" Lead Length (.018 dia) SEE NOTE 1	2H Socket, straight, .172" Lead Length (.018 dia)
1J Pin, straight, .187" Lead Length (.018 dia) SEE NOTE 1	2J Socket, straight, .187" Lead Length (.018 dia)	13 Pin, straight, .250" Lead Length (.018 dia) SEE NOTE 1	23 Socket, straight, .250" Lead Length (.018 dia)
1K Pin, straight, .375" Lead Length (.018 dia) SEE NOTE 1	2K Socket, straight, .375" Lead Length (.018 dia)	14 Pin, straight, .500" Lead Length (.018 dia) SEE NOTE 1	2L Socket, straight, .500" Lead Length (.018 dia)
15 Pin, straight, 1.000" Lead Length (.018 dia) SEE NOTE 1	2M Socket, straight, 1.000" Lead Length (.018 dia)	16 Pin, straight, crimped wire	24 Socket, straight, .500" Lead Length (.018 dia) SEE NOTE 1
	25 Socket, straight, 1.000" Lead Length (.018 dia) SEE NOTE 1		26 Socket, straight, crimped wire
<b>PLATING OPTIONS:</b>		<b>PLATING OPTIONS:</b>	
1 50 μ" Au contacts (crimp wire)	1 50 μ" Au contacts (crimp wire)	3 50 μ" Au contacts (solder cup, pigtail)	3 50 μ" Au contacts (solder cup, pigtail)
5 50 μ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	5 50 μ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/>	7 50 μ" Au contacts; SAC305 terminations	7 50 μ" Au contacts; SAC305 terminations
<b>HARDWARE</b>			
<b>STYLE OF HARDWARE:</b>		<b>STYLE OF HARDWARE:</b>	
00 None	00 None	22 Two fixed jacknut assemblies (62*)	22 Two fixed jacknut assemblies (62*)
41 Two turning jackscrews, allen head, retaining ring (81*)	41 Two turning jackscrews, allen head, retaining ring (81*)	42 Two long turning jackscrews, allen head, retaining ring (82*)	42 Two long turning jackscrews, allen head, retaining ring (82*)
43 Two turning jackscrews, slot head, retaining ring (83*)	43 Two turning jackscrews, slot head, retaining ring (83*)	44 Two long turning jackscrews, slot head, retaining ring (84*)	44 Two long turning jackscrews, slot head, retaining ring (84*)
45 Two turning jackscrews, allen head, captivated** (85*)	45 Two turning jackscrews, allen head, captivated** (85*)	99 Keying hardware, see options below. (Body material 2, 3 and 4 only)	99 Keying hardware, see options below. (Body material 2, 3 and 4 only)
<b>POLARIZATION / WIRING</b>		<b>POLARIZATION / WIRING</b>	
00 None	00 None	XX For wiring codes, see page MA-3 & MA-4	XX For wiring codes, see page MA-3 & MA-4
<b>OPTIONS</b>			
KSXX Two turning jackscrews. See page MA-6 for keying options (KJ*)	KSXX Two turning jackscrews and interfacial sealing gasket. See page MA-6 for keying options (KJ*)	KPXX Two fixed jacknuts. See page MA-6 for keying options (KN*)	KPXX Two fixed jacknuts and interfacial sealing gasket. See page MA-6 for keying options (KN*)
900 Interfacial sealing gasket	900 Interfacial sealing gasket		

\* = Use numbers or letters in parenthesis when ordering size 100.

\*\* = Captive hardware is factory installed and non-removable.

\*\*\* = 69 position connectors are available in metal only.

\*\*\*\* = 2 row, 51 position connectors are available in metal only (non Mil-Spec interface).

= Option not RoHS compliant

NOTE 1 = The leads on these contacts are soft copper suitable for forming.