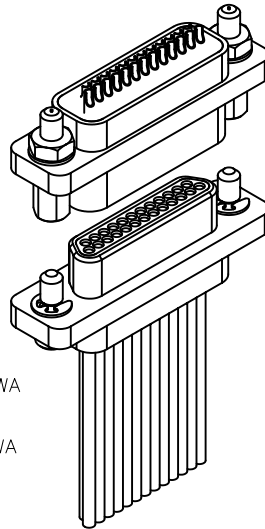# Cable to Cable

.050"
9 thru 100 Contacts

Rugged Metal

MM

Rugged Plastic
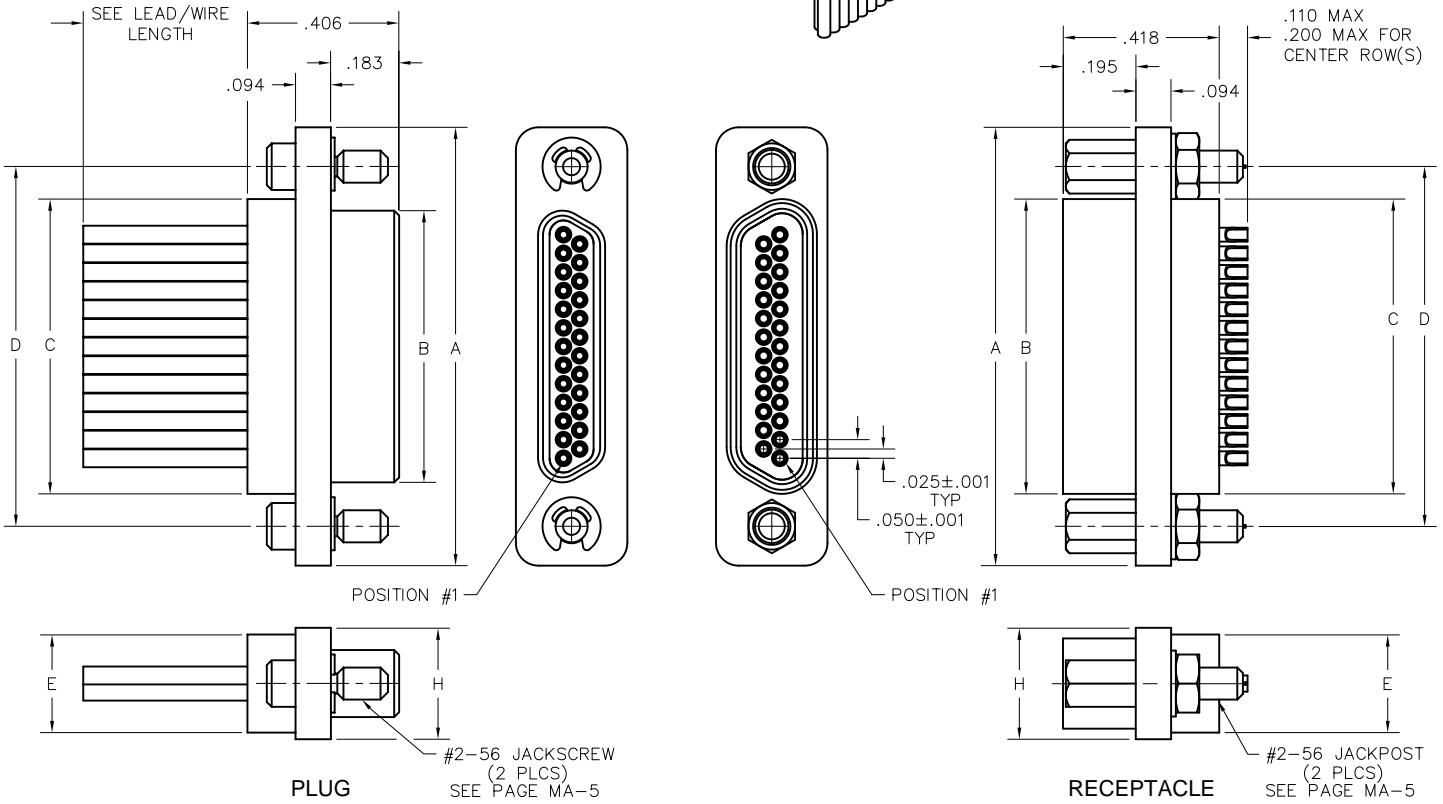
MN

MM−223−025−2A3−2200
(METAL)

MN−221−025−2A3−2200
(PLASTIC)

MM−212−025−161−41WA
(METAL)

MN−211−025−161−41WA
(PLASTIC)

SEE LEAD/WIRE LENGTH

.406
.183
.094

.110 MAX
.200 MAX FOR CENTER ROW(S)

.418
.195
.094

.025±.001 TYP
.050±.001 TYP

POSITION #1

POSITION #1

#2−56 JACKSCREW
(2 PLCS)
SEE PAGE MA−5

PLUG

#2−56 JACKPOST
(2 PLCS)
SEE PAGE MA−5

RECEPTACLE

		DIMENSIONS							
SIZE	CONTACT ROWS	A	B		C	D	E	H	HARDWARE
			PLUG MAX	RCPT MAX			POTTING WELL 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	
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).

Call (972) 931-3200   Fax (972) 931-9305   www.AirBorn.com

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

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

  ⊠ = Option not RoHS compliant

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