



Cable to Board (Standard Footprint)

.050"

9 thru 100 Contacts

Rugged Cable

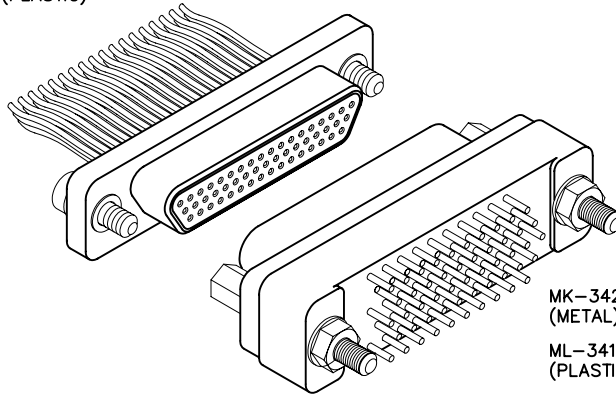
MM, MN

Rugged Board Mount

MK, ML

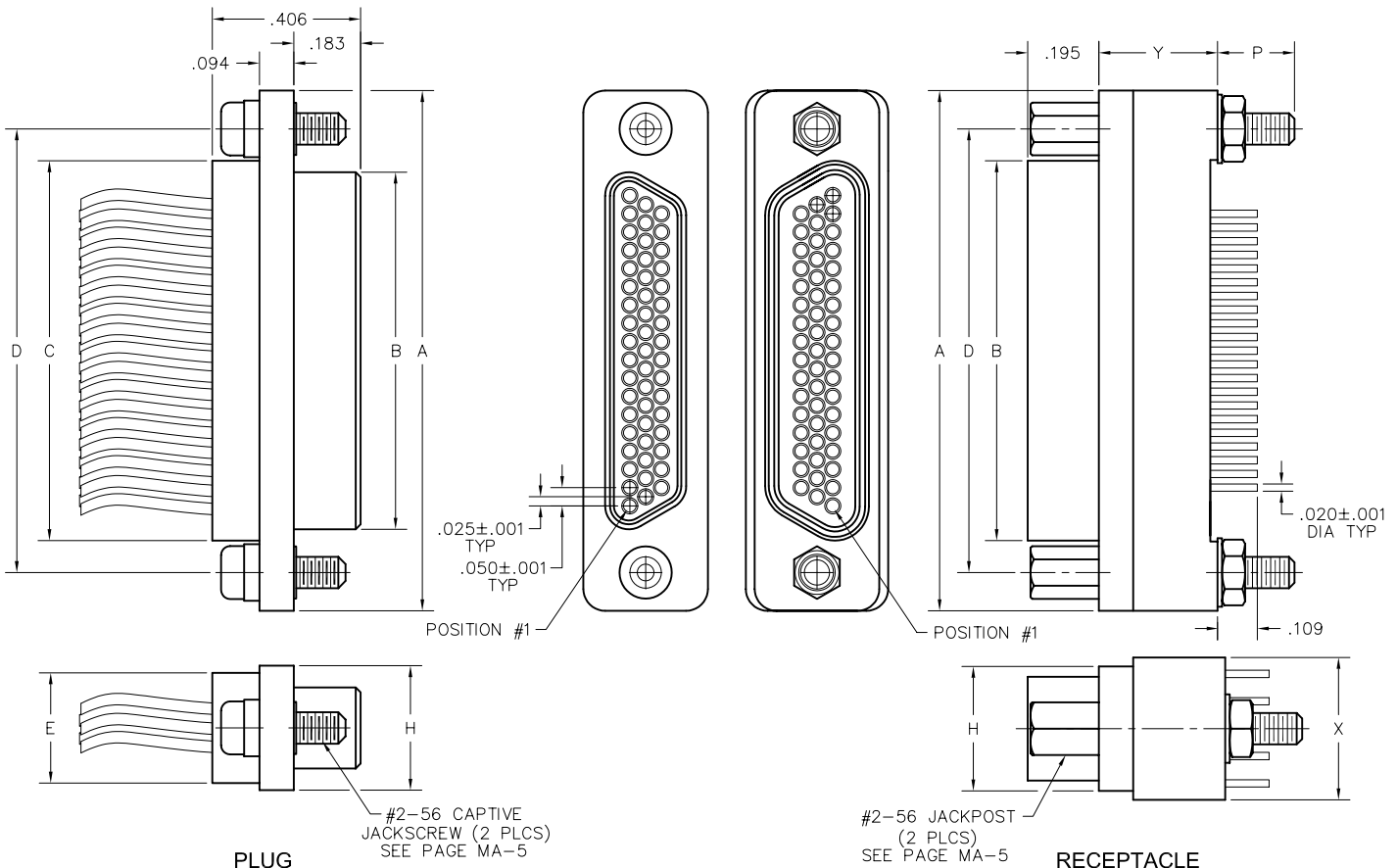
MM-312-051-161-45WP
(METAL)

MN-311-051-161-45WP
(PLASTIC)



MK-342-051-225-2200
(METAL)

ML-341-051-225-2200
(PLASTIC)



PLUG

RECEPTACLE

DIMENSIONS												
SIZE	CONTACT ROWS	A	B		C	D	E	H	P	X	Y	HARDWARE
			PLUG MAX	RCPT MAX			POTTING WELL MAX					
9	2	.775	.334	.400	.390	.565	.270	.298	.210	.298	.280	#2-56 UNC THD (.092 DIA THRU OR #2-56 UNC THREADED INSERT)
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	3	1.475	1.034	1.100	1.090	1.265	.310	.341	.219	.390	.325	
51		1.425	.984	1.050	1.040	1.215						
69		1.725	1.284	1.350	1.340	1.515						
100		4	2.160	1.384	1.508	1.432						

* = 69 POSITION CONNECTORS ARE AVAILABLE IN METAL ONLY.

** = 37 POSITION WITH TURNING HARDWARE "Y" DIMENSION IS .280.

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** = 37 POSITION WITH TURNING HARDWARE "Y" DIMENSION IS .280.

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

PLUG: MM-312-051-161-45WP
RECEPTACLE: MK-342-051-225-2200
PLUG: MN-311-051-161-45WP
RECEPTACLE: ML-341-051-225-2200
 XX-XXX-XXX-XXX-XXXX-XXX

PLUG
RECEPTACLE

SERIES	
MM .050" Rugged Metal I/O Connector	MK .050" Rugged Metal PC Board Mount Connector
MN .050" Rugged Plastic I/O Connector	ML .050" Rugged Plastic PC Board Mount Connector
(MM & MN mate with MK, ML, MM, MN receptacles)	
(MK & ML mate with MK, ML, MM, MN plugs)	

BODY	
2 2-Row (Sizes 9 thru 37)	2 2-Row (Sizes 9 thru 37)
3 3-Row (Size 51 & 69***)	3 3-Row (Size 51 & 69***)
4 4-Row (Size 100)	4 4-Row (Size 100)

BODY STYLE:	BODY STYLE:
1 Plug, straight, with ears	4 Receptacle, straight, standard footprint
BODY MATERIAL:	BODY MATERIAL:
1 Polyphenylene Sulfide (MN only)	1 Polyphenylene Sulfide (ML only)
2 Polyphenylene Sulfide with electroless nickel shell	2 Polyphenylene Sulfide with electroless nickel shell
3 Polyphenylene Sulfide with electrodeposited cadmium shell ☒	3 Polyphenylene Sulfide with electrodeposited cadmium shell ☒
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

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:	TYPE CONTACTS/TERMINATIONS:
11 Pin, straight, solder cup	22 Socket, straight, PCB leads, .109"
14 Pin, straight, .500" pigtails (.018 dia)	23 Socket, straight, PCB leads, .140"
15 Pin, straight, 1.000" pigtails (.018 dia)	24 Socket, straight, PCB leads, .172"
16 Pin, straight, crimped wire	
PLATING OPTIONS:	PLATING OPTIONS:
1 50 µ" Au contacts (crimp wire)	3 50 µ" Au contacts: 10 µ" Au terminations
3 50 µ" Au contacts: 10 µ" Au terminations (solder cup, pigtail)	5 50 µ" Au contacts; Sn/Pb alloy terminations ☒
5 50 µ" Au contacts; Sn/Pb alloy terminations (pigtail) ☒	7 50 µ" Au contacts; SAC305 terminations
7 50 µ" Au contacts; SAC305 terminations (pigtail)	

HARDWARE	
STYLE OF HARDWARE:	STYLE OF HARDWARE:
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*)	99 Keying hardware, see options below (Body material 2, 3 and 4 only)
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:	POLARIZATION / WIRING
00 None	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 and interfacial sealing gasket. See page MA-6 for keying options (KN*)
	900 Interfacial sealing gasket
	0B7 Threaded inserts and interfacial sealing gasket

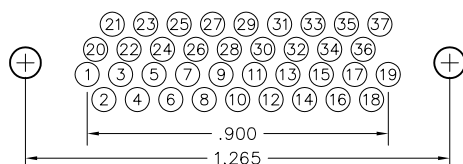
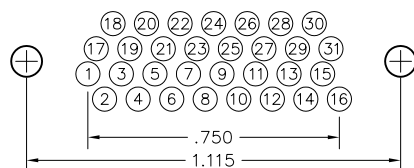
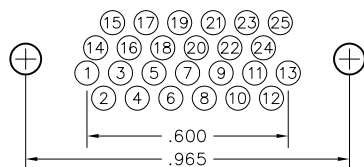
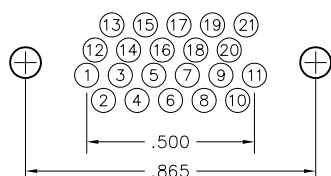
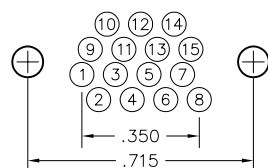
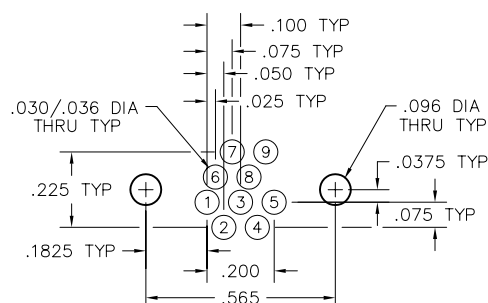
* = Use numbers or letters in parenthesis when ordering size 100. *** = 69 position connectors are available in metal only.
 ** = Captive hardware is factory installed and non-removable. **** = Connector body has no mounting holes.
☒ = Option not RoHS compliant



Recommended PC Board Layout

Straight, Standard Footprint

RECEPTACLE
PC BOARD LAYOUT
COMPONENT SIDE



CONNECTOR
MATING FACE
(RECEPTACLE)



9 POSITION



15 POSITION



21 POSITION



25 POSITION



31 POSITION

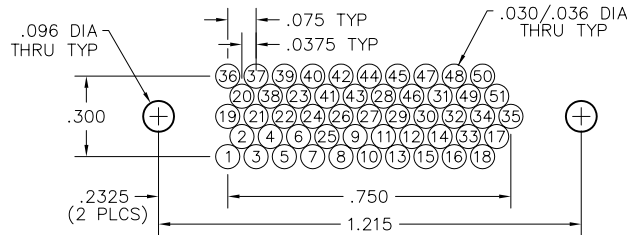


37 POSITION

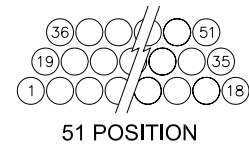
Recommended PC Board Layout

Straight, Standard Footprint

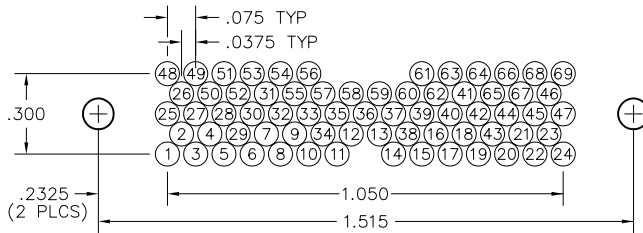
RECEPTACLE PC BOARD LAYOUT COMPONENT SIDE



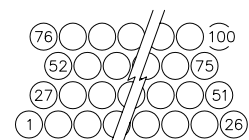
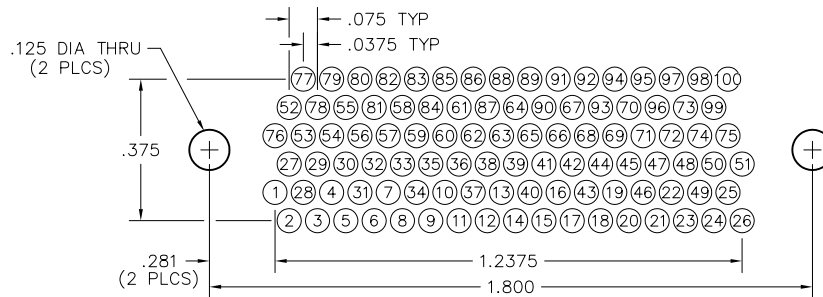
CONNECTOR MATING FACE (RECEPTACLE)



51 POSITION

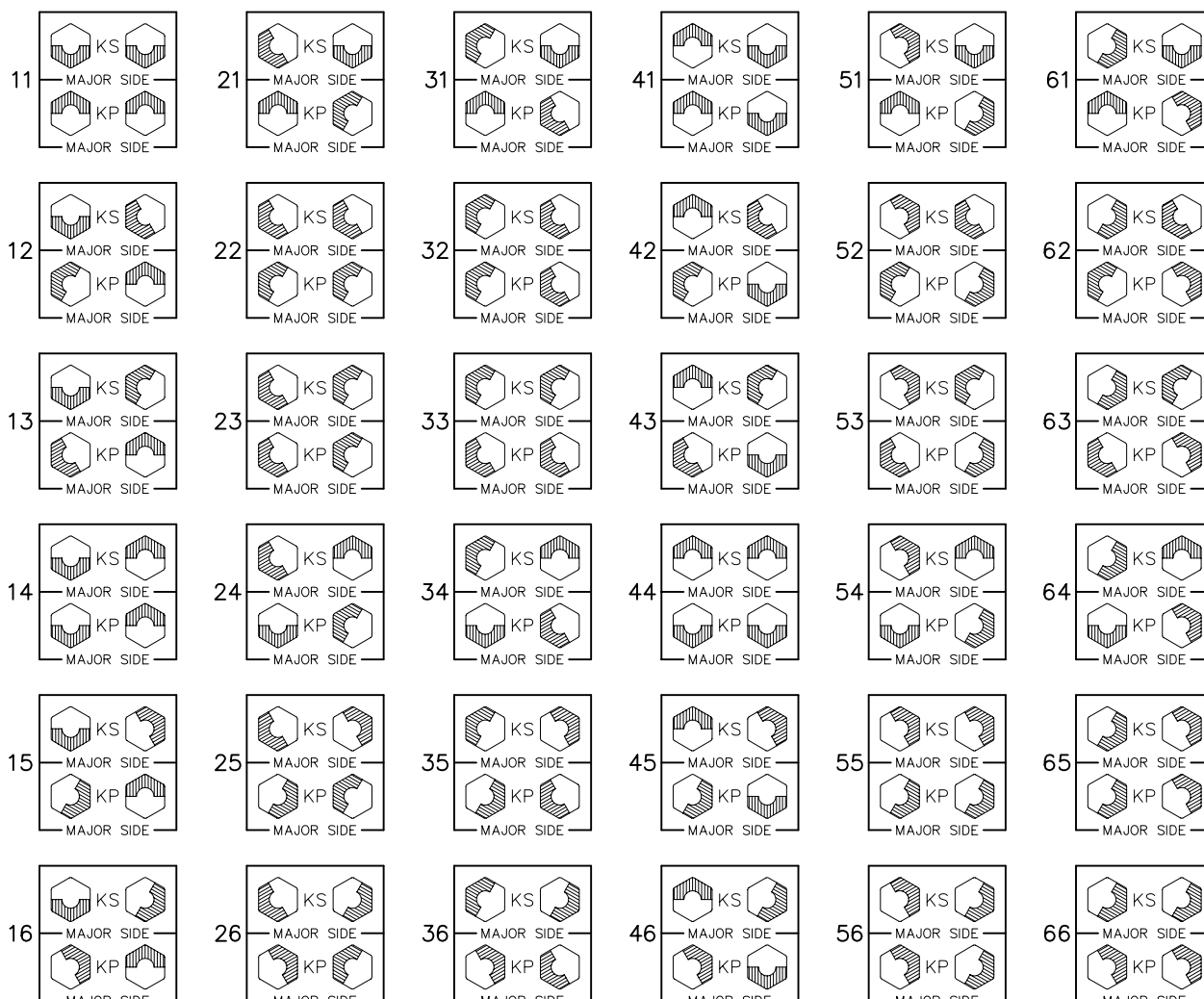


69 POSITION



100 POSITION

Polarized Keying Hardware

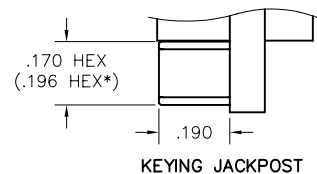
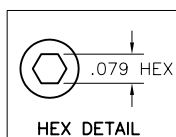
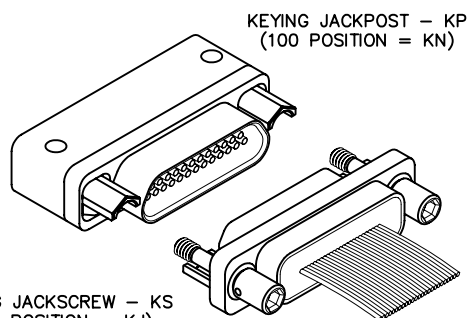


Select the appropriate two digit number above and include as the last two digits of the hardware code in the part number.
(Keying hardware is factory installed and non-removable).

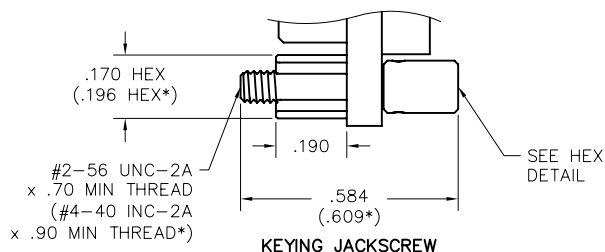
Example:

MM-213-025-161-99WA-KS11

MK-263-025-435-990S-KP11



KEYING JACKPOST



KEYING JACKSCREW

* = Dimensions for 100 position connectors