

**PLUG:** MM-212-031-161-41WQ  
**RECEPTACLE:** MK-2J2-031-475-2200  
 XX-XXX-XXX-XXX-XXXX-XXX

**PLUG**
**RECEPTACLE**

SERIES
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MM .050" Rugged Metal I/O Connector (MM mates with MK, ML, MM, MN receptacles)	MK .050" Rugged Metal Surface Mount Connector (MK mates with MK, ML, MM, MN plugs)
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BODY
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2 2-Row (Sizes 9 thru 51*)  BODY STYLE: 1 Plug, straight, with ears  BODY MATERIAL: 2 Polyphenylene Sulfide with electroless nickel shell 3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Polyphenylene Sulfide with hard anodized black shell	2 2-Row (Sizes 9 thru 51*)  BODY STYLE: J Receptacle, vertical surface mount  BODY MATERIAL: 2 Polyphenylene Sulfide with electroless nickel shell 3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/> 4 Polyphenylene Sulfide with hard anodized black shell
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SIZE
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XXX 009, 015, 021, 025, 031, 037, 051*	XXX 009, 015, 021, 025, 031, 037, 051*
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CONTACTS
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TYPE CONTACTS/TERMINATIONS: 11 Pin, straight, solder cup 14 Pin, straight, .500" pigtails (.018 dia) 15 Pin, straight, 1.000" pigtails (.018 dia) 16 Pin, straight, crimped wire  PLATING OPTIONS: 1 50 μ" Au contacts (crimp wire) 3 50 μ" Au contacts: 10 μ" Au terminations (solder cup, pigtail) 5 50 μ" Au contacts; Sn/Pb alloy terminations (pigtail) <input checked="" type="checkbox"/> 7 50 μ" Au contacts; SAC305 terminations (pigtail)	TYPE CONTACTS/TERMINATIONS: 47 Socket, vertical smt  PLATING OPTIONS: 5 50 μ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/> 7 50 μ" Au contacts; SAC305 terminations
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HARDWARE
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STYLE OF HARDWARE: 00 None 22 Two fixed jacknut assemblies 41 Two turning jackscrews, allen head, retaining ring 42 Two long turning jackscrews, allen head, retaining ring 43 Two turning jackscrews, slot head, retaining ring 44 Two long turning jackscrews, slot head, retaining ring 45 Two turning jackscrews, allen head, captivated** 99 Keying hardware, see options below  POLARIZATION / WIRING: 00 None XX For wiring codes, see page MA-3 & MA-4	STYLE OF HARDWARE: 00 None 22 Two fixed jacknut assemblies 41 Two turning jackscrews, allen head, retaining ring 99 Keying hardware, see options below  POLARIZATION / WIRING: 00 None
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OPTIONS
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KSXX Two turning jackscrews. See page MA-6 for keying options	KPXX Two fixed jacknuts and interfacial sealing gasket. See page MA-6 for keying options 900 Interfacial sealing gasket
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\* = 2 row, 51 position connectors are non-Mil Spec interface.

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

☒ = Option not RoHS compliant

**PLUG:** MK 2D2-031-335-260S  
**RECEPTACLE:** MK 2E2-031-445-260S  
 XX-XXX-XXX-XXX-XXXX-XXX  
 |     |     |     |     |  
 BODY CONTACTS OPTIONS  
 SERIES     SIZE     HARDWARE

## PLUG

### SERIES

MK .050" Rugged Metal PC Board Mount Connector

### BODY

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

#### BODY STYLE:

- D Plug, right angle, rear panel mount with fluorosilicone o-ring

#### BODY MATERIAL:

- 2 Electroless nickel shell w/ PPS insulator
- 3 Electrodeposited cadmium shell w/ PPS insulator ☒
- 4 Hard anodized black shell w/ PPS insulator

### SIZE

XXX 009, 015, 021, 025, 031, 037, 051, 069, 100

### CONTACTS

#### TYPE CONTACTS/TERMINATIONS:

- 32 Pin, right angle, PCB leads, .109"
- 33 Pin, right angle, PCB leads, .140"
- 34 Pin, right angle, PCB leads, .172"

#### PLATING OPTIONS:

- 3 50 μ" Au contacts
- 5 50 μ" Au contacts; Sn/Pb alloy terminations ☒
- 7 50, u" Au contacts; SAC305 terminations

### HARDWARE

#### STYLE OF HARDWARE:

- 00 None
- 24 Two fixed jacknuts, rear panel mount, .040" panel thickness (64\*)
- 26 Two fixed jacknuts, rear panel mount, .060" panel thickness (66\*)
- 28 Two fixed jacknuts, rear panel mount, .070" panel thickness (68\*)
- 29 Two fixed jacknuts, rear panel mount, .080" panel thickness (69\*)

#### POLARIZATION:

- 0S Standard body polarization

### OPTIONS

- EMI EMI gasket (in lieu of fluorosilicone o-ring)
- 0B7 Threaded inserts in mounting holes
- 0FW Threaded inserts in mounting holes and EMI gasket (in lieu of fluorosilicone o-ring)

### NOTES

See page MA-10 for rear panel mounting dimensions.  
See page MA-7 for rear panel hardware dimensions.

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

☒ = Option not RoHS compliant

## RECEPTACLE

### SERIES

MK .050" Rugged Metal PC Board Mount Connector

### BODY

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

#### BODY STYLE:

- E Receptacle, right angle, rear panel mount with fluorosilicone o-ring and interfacial seal

#### BODY MATERIAL:

- 2 Electroless nickel shell w/ PPS insulator
- 3 Electrodeposited cadmium shell w/ PPS insulator ☒
- 4 Hard anodized black shell w/ PPS insulator

### SIZE

XXX 009, 015, 021, 025, 031, 037, 051, 069, 100

### CONTACTS

#### TYPE CONTACTS/TERMINATIONS:

- 43 Socket, right angle, PCB leads, .109"
- 44 Socket, right angle, PCB leads, .140"
- 45 Socket, right angle, PCB leads, .172"

#### PLATING OPTIONS:

- 3 50 μ" Au contacts
- 5 50 μ" Au contacts; Sn/Pb alloy terminations ☒
- 7 50, u" Au contacts; SAC305 terminations

### HARDWARE

#### STYLE OF HARDWARE:

- 00 None
- 24 Two fixed jacknuts, rear panel mount, .040" panel thickness (64\*)
- 26 Two fixed jacknuts, rear panel mount, .060" panel thickness (66\*)
- 28 Two fixed jacknuts, rear panel mount, .070" panel thickness (68\*)
- 29 Two fixed jacknuts, rear panel mount, .080" panel thickness (69\*)

#### POLARIZATION:

- 0S Standard body polarization

### OPTIONS

- EMI EMI gasket (in lieu of fluorosilicone o-ring)
- 0B7 Threaded inserts in mounting holes
- 0FW Threaded inserts in mounting holes and EMI gasket (in lieu of fluorosilicone o-ring)

### NOTES

See page MA-10 for rear panel mounting dimensions.  
See page MA-7 for rear panel hardware dimensions.

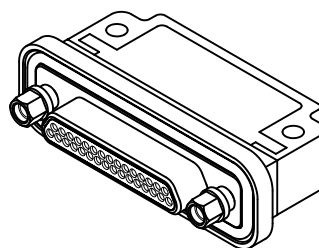


# Rear Panel Mount, Right Angle Boardmount

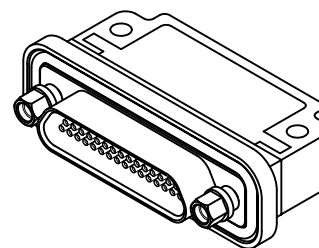
.050"

9 thru 100 Contacts

**MK**

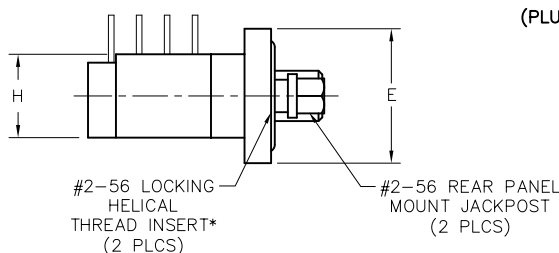
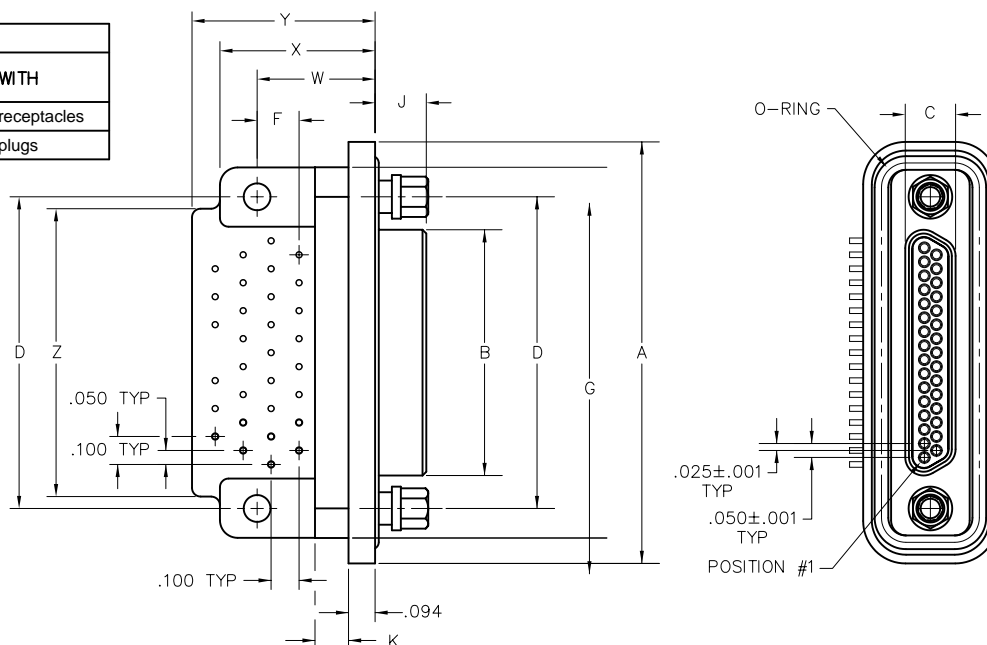


MK-2D2-031-335-260S  
(PLUG)



MK-2E2-031-445-260S  
(RECEPTACLE)

MATING MATRIX	
CONNECTOR	MATES WITH
MK-2D...	MK, ML, MM, MN receptacles
MK-2E...	MK, ML, MM, MN plugs



(PLUG SHOWN)

DIMENSIONS																									
SIZE	CONTACT ROWS	A	B		C		D	E	F	G	H	J		K	W	X MAX	Y MAX	Z	HARDWARE	MOUNTING HOLE					
			PLUG MAX	RCPT MAX	PLUG MAX	RCPT MAX						PLUG	RCPT												
9	2	.957	.334	.400	.185	.251	.565	.480	.150	.775	.298	.183	.195	.120	.421	.540	.540	.775	#2-56 UNC THD	.096 DIA OR #2-56 UNC THREADED INSERT					
15		1.107	.484	.550			.715			.925							.925								
21		1.257	.634	.700			.865			1.075							1.075								
25		1.357	.734	.800			.965			1.175							1.175								
31		1.507	.884	.950			1.115			1.325							1.030								
37		1.657	1.034	1.100			1.265			1.475							1.180								
51	3	1.657	.984	1.050	.228	.294	1.215	.523	.150	1.425	.341				.550	.770	1.220	.870			1.450	#4-40 UNC THD	.125 DIA OR #4-40 UNC THREADED INSERT		
69		1.957	1.284	1.350			1.515			1.725						1.450									
100	4	2.383	1.384	1.508	.271	.394	1.800	.600	.200	2.160	.381						.176	.577			.775	1.180	1.810		

\*\* = SHELL ACCEPTS .190 MAX #2-56 SCREW LENGTH (.220 MAX #4-40 SCREW LENGTH).

Call (972) 931-3200 Fax (972) 931-9305 [www.AirBorn.com](http://www.AirBorn.com)



# Cable to Board (Vertical Surface Mount)

.050"

9 thru 51 Contacts

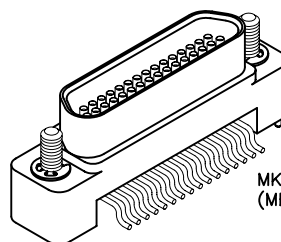
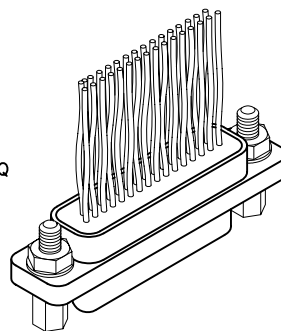
Rugged Surface Mount

**MK**

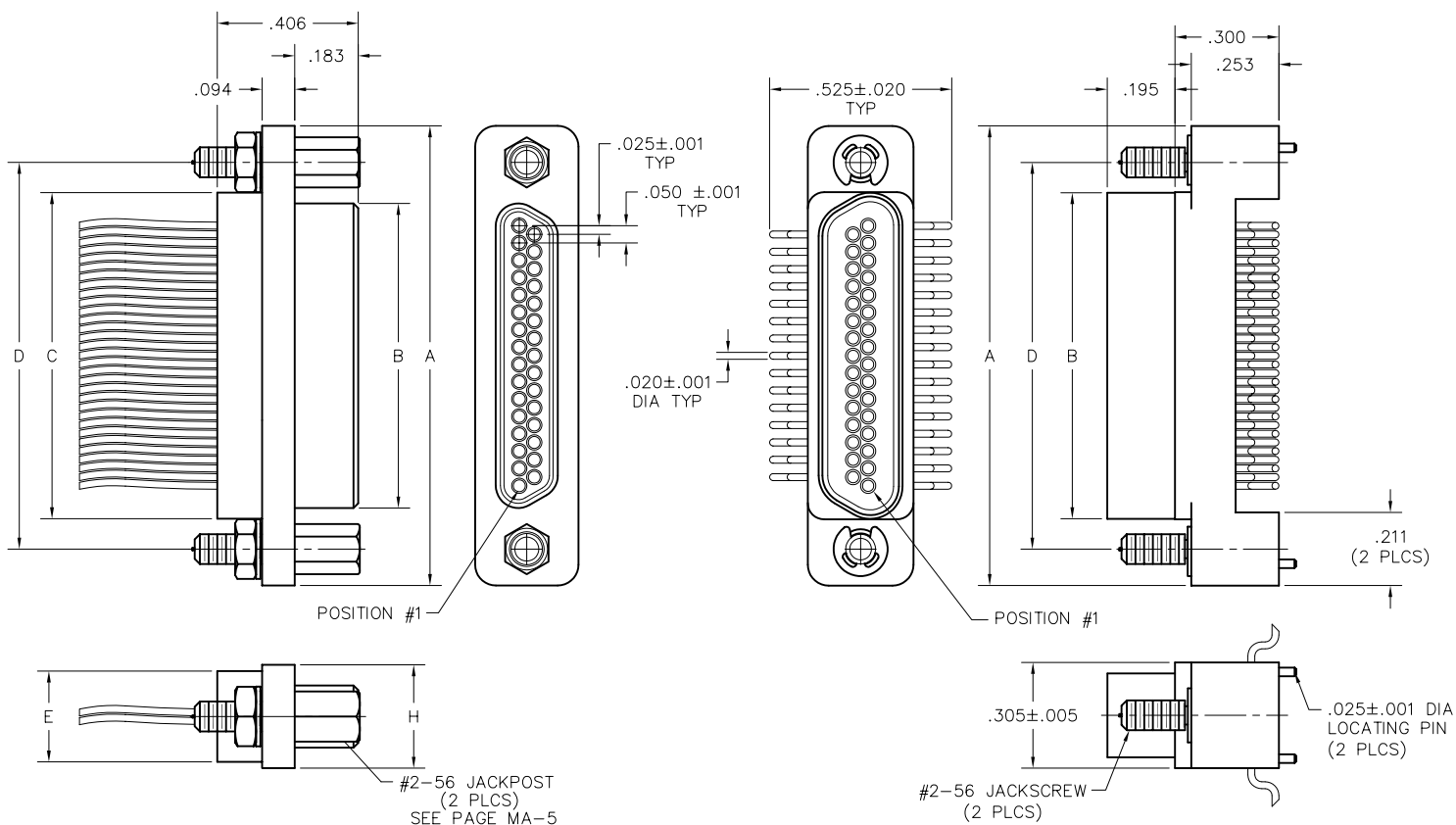
Rugged Cable

**MM**

MM-212-031-161-22WQ  
(METAL)



MK-2J2-031-475-4100  
(METAL)



PLUG

RECEPTACLE

SIZE	CONTACT ROWS	DIMENSIONS							
		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 POSITION CONNECTORS ARE NON-MIL SPEC INTERFACE

# Mouser Electronics

Authorized Distributor

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AirBorn:

[MK-2J2-037-475-2200](#) [MK-2J2-031-475-2200](#)