



# Cable to Board (Standard Footprint)

.050"

9 thru 100 Contacts

Rugged Cable

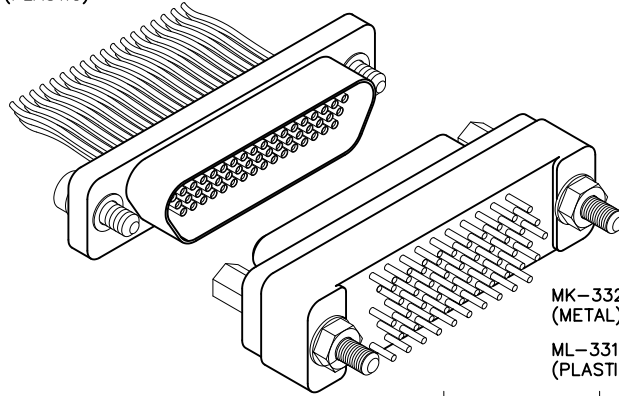
**MM, MN**

Rugged Board Mount

**MK, ML**

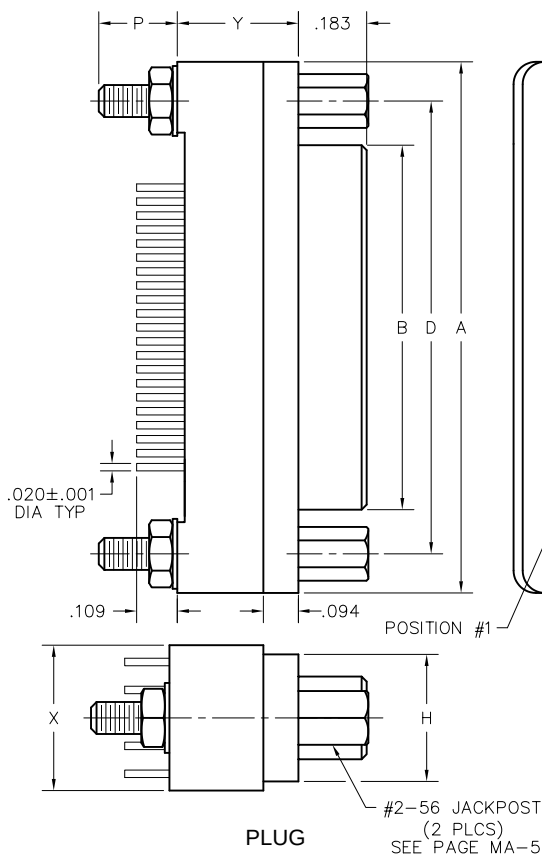
MM-322-051-261-45WP  
(METAL)

MN-321-051-261-45WP  
(PLASTIC)

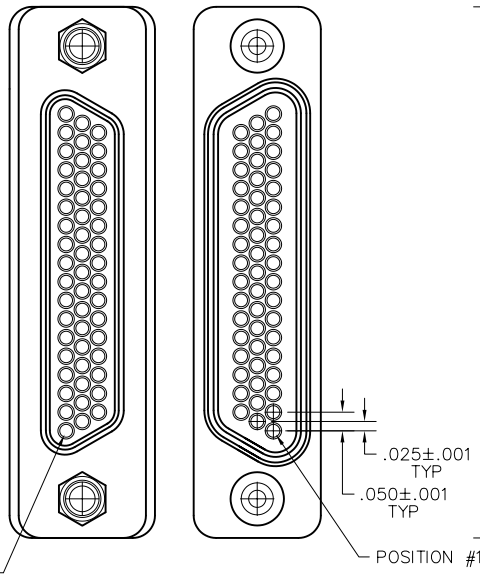


MK-332-051-125-2200  
(METAL)

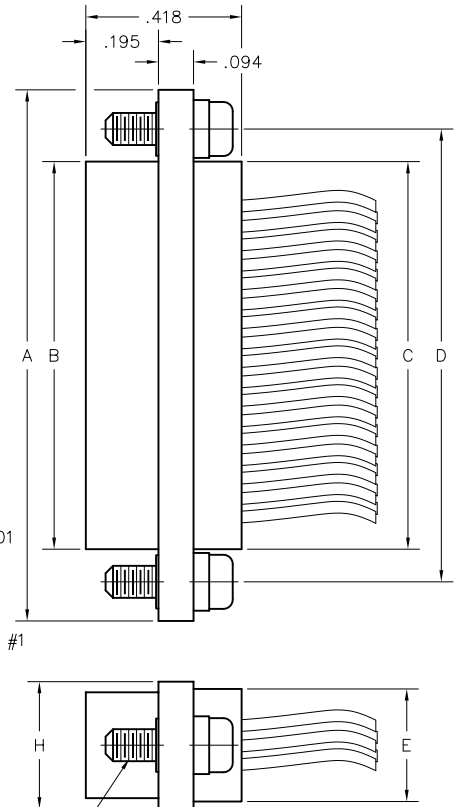
ML-331-051-125-2200  
(PLASTIC)



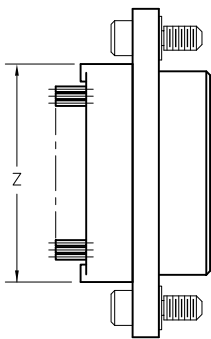
PLUG



RECEPTACLE



#2-56 CAPTIVE  
JACKSCREW (2 PLCS)  
SEE PAGE MA-5



| DIMENSIONS                                                             |              |       |          |          |       |       |                  |        |       |      |      |       |                                                                       |                                                                       |
|------------------------------------------------------------------------|--------------|-------|----------|----------|-------|-------|------------------|--------|-------|------|------|-------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
| SIZE                                                                   | CONTACT ROWS | A     | B        |          | C     | D     | E                | H      | P     | X    | Y    | Z***  | HARDWARE                                                              |                                                                       |
|                                                                        |              |       | PLUG MAX | RCPT MAX |       |       | POTTING WELL MAX |        |       |      |      |       |                                                                       |                                                                       |
| 9                                                                      | 2            | .775  | .334     | .400     | .390  | .565  | .270             | .298   | .210  | .298 | .280 | .390  | #2-56 UNC THD<br>(#2-56 CLEARANCE<br>OR #2-56 UNC<br>THREADED INSERT) |                                                                       |
| 15                                                                     |              | .925  | .484     | .550     | .540  | .715  |                  |        |       |      |      | .540  |                                                                       |                                                                       |
| 21                                                                     |              | 1.075 | .634     | .700     | .690  | .865  |                  |        |       |      |      | .690  |                                                                       |                                                                       |
| 25                                                                     |              | 1.175 | .734     | .800     | .790  | .965  |                  |        |       |      |      | .780  |                                                                       |                                                                       |
| 31                                                                     |              | 1.325 | .884     | .950     | .940  | 1.115 |                  |        |       |      |      | .930  |                                                                       |                                                                       |
| 37                                                                     | 3            | 1.475 | 1.034    | 1.100    | 1.090 | 1.265 | .214             | .330** | 1.080 |      |      |       |                                                                       |                                                                       |
| 51                                                                     |              | 1.425 | .984     | 1.050    | 1.040 | 1.215 | .310             | .341   | .219  | .390 | .325 | 1.046 |                                                                       |                                                                       |
| 69                                                                     |              | 1.725 | 1.284    | 1.350    | 1.340 | 1.515 | .360             | .384   | .216  | .490 | .379 | 1.346 |                                                                       |                                                                       |
| 100                                                                    | 4            | 2.160 | 1.384    | 1.508    | 1.432 | 1.800 | .360             | .384   | .216  | .490 | .379 | 1.530 |                                                                       | #4-40 UNC THD<br>(#4-40 CLEARANCE<br>OR #4-40 UNC<br>THREADED INSERT) |
| * = 69 POSITION CONNECTORS ARE AVAILABLE IN METAL ONLY.                |              |       |          |          |       |       |                  |        |       |      |      |       |                                                                       |                                                                       |
| ** = 37 POSITION WITH TURNING HARDWARE "Y" DIMENSION IS .280.          |              |       |          |          |       |       |                  |        |       |      |      |       |                                                                       |                                                                       |
| *** = .37" MINIMUM CLEARANCE FROM CENTER OF CONTACT TO CENTER OF HOLES |              |       |          |          |       |       |                  |        |       |      |      |       |                                                                       |                                                                       |

\* = 69 POSITION CONNECTORS ARE AVAILABLE IN METAL ONLY.

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

\*\*\* = "Z" DIMENSION FOR TURNING JACKSCREW ONLY

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

**PLUG:** MK-332-051-125-2200

**RECEPTACLE:** MM-322-051-261-45WP

**PLUG:** ML-331-051-125-2200

**RECEPTACLE:** MN-321-051-261-45WP

XX-XXX-XXX-XXX-XXXX-XXX

## PLUG

## RECEPTACLE

### SERIES

|                                                                                                    |                                                                                   |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| MK .050" Rugged Metal PC Board Mount Connector                                                     | MM .050" Rugged Metal I/O Connector                                               |
| ML .050" Rugged Plastic PC Board Mount Connector<br>(MK & ML mate with MK, ML, MM, MN receptacles) | MN .050" Rugged Plastic I/O Connector<br>(MM & MN 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)                                                                                                                                                                                                                                                                                                                     |
| <b>BODY STYLE:</b><br>3 Plug, straight, standard footprint                                                                                                                                                                                                                                                                             | <b>BODY STYLE:</b><br>2 Receptacle, straight, with ears                                                                                                                                                                                                                                                                                |
| <b>BODY MATERIAL:</b><br>1 Polyphenylene Sulfide (ML only)<br>2 Polyphenylene Sulfide with electroless nickel shell<br>3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/><br>4 Polyphenylene Sulfide with hard anodized black shell<br>5 Polyphenylene Sulfide with stainless steel shell | <b>BODY MATERIAL:</b><br>1 Polyphenylene Sulfide (MN only)<br>2 Polyphenylene Sulfide with electroless nickel shell<br>3 Polyphenylene Sulfide with electrodeposited cadmium shell <input checked="" type="checkbox"/><br>4 Polyphenylene Sulfide with hard anodized black shell<br>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

|                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TYPE CONTACTS/TERMINATIONS:</b><br>12 Pin, straight, PCB leads, .109"<br>13 Pin, straight, PCB leads, .140"<br>14 Pin, straight, PCB leads, .172"                                                   | <b>TYPE CONTACTS/TERMINATIONS:</b><br>21 Socket, straight, solder cup<br>24 Socket, straight, .500" pigtails (.018 dia)<br>25 Socket, straight, 1.000" pigtails (.018 dia)<br>26 Socket, straight, crimped wire                                                                      |
| <b>PLATING OPTIONS:</b><br>3 50 µ" Au contacts: 10 µ" Au terminations<br>5 50 µ" Au contacts; Sn/Pb alloy terminations <input checked="" type="checkbox"/><br>7 50 µ" Au contacts; SAC305 terminations | <b>PLATING OPTIONS:</b><br>1 50 µ" Au contacts (crimp wire)<br>3 50 µ" Au contacts: 10 µ" Au terminations (solder cup, pigtail)<br>5 50 µ" Au contacts; Sn/Pb alloy terminations (pigtail) <input checked="" type="checkbox"/><br>7 50 µ" Au contacts; SAC305 terminations (pigtail) |

### HARDWARE

|                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>STYLE OF HARDWARE:</b><br>00 None<br>22 Two fixed jacknut assemblies (62*)<br>41 Two turning jackscrews, allen head, retaining ring**** (81*)<br>99 Keying hardware, see options below (Body material 2, 3 and 4 only) | <b>STYLE OF HARDWARE:</b><br>00 None<br>22 Two fixed jacknut assemblies (62*)<br>41 Two turning jackscrews, allen head, retaining ring (81*)<br>42 Two long turning jackscrews, allen head, retaining ring (82*)<br>43 Two turning jackscrews, slot head, retaining ring (83*)<br>44 Two long turning jackscrews, slot head, retaining ring (84*)<br>45 Two turning jackscrews, allen head, captivated** (85*)<br>99 Keying hardware, see options below (Body material 2, 3 and 4 only) |
| <b>POLARIZATION / WIRING:</b><br>00 None                                                                                                                                                                                  | <b>POLARIZATION / WIRING</b><br>00 None<br>XX For wiring codes, see page MA-3 & MA-4                                                                                                                                                                                                                                                                                                                                                                                                    |

### OPTIONS

|                                                                 |                                                                                                    |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 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*) |
| 0B7 Threaded inserts                                            | 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.

\*\*\*\* = Connector body has no mounting holes.

☒ = Option not RoHS compliant