

Micro-D Plastic Shell - .050" Contact Spacing

MD**

Microminiature Rectangular Connectors with MICRO-Pin Contacts on .050 (1.27) centers.

MICRO-D microminiature rack/panel connectors are used in applications requiring highly reliable, extremely small, lightweight connectors. These connectors are available in 2 insulator materials, 2 mounting variations, 7 shell sizes accommodating from 9 to 51 contacts and a special arrangement of 5 micro contacts and 2 coaxials. The insulator materials listed give the MICRO-D connector wide versatility in most applications required by industry.

ITT can also terminate a wide variety of stranded or solid wire directly to MICRO-D contacts, which is often desirable in high density arrangements.

MICRO-D connectors can also be custom harnessed to meet any customer requirement of single or multiple connectors. Pigtail lead and harness description must be given by the customer. A typical description would be: .5" #25 AWG, gold plated copper leads or 18" of #26 yellow, Teflon-insulated, Type E wire. Shown below are various methods of termination. Consult customer service for any routine or complex harnessing of MICRO-D connectors.

- Glass-filled diallyl phthalate thermoset material used in high temperature applications that is immune to cleaning solvents. It also has excellent dielectric properties. Temperature range: -65°F to +300°F (-55°C to +149°C).
- Glass-filled polyester thermoplastic that is not affected by cleaning solvents and exhibits excellent dielectric properties. Temperature range: -55°F to +257°F (-65°C to +125°C).

Specifications

MATERIALS AND FINISHES

| | |
|-----------------------------|---|
| Shell/Insulator (One Piece) | MD/MDB: Glass-filled thermoset plastic MDV/MDVB: Thermoplastic |
| Contacts | - Copper alloy, gold plate |

ELECTRICAL DATA

| | |
|---------------------|--|
| No of Contacts | - 9 to 51: (1 arrangement of 5 contacts and 2 coaxials - for screw mount only) |
| Coaxial Cable | - RG-178/U (Not available for MD clip mount) |
| Wire Size | - #24 thru #32 AWG |
| Contact Termination | - Multi-indent crimp |

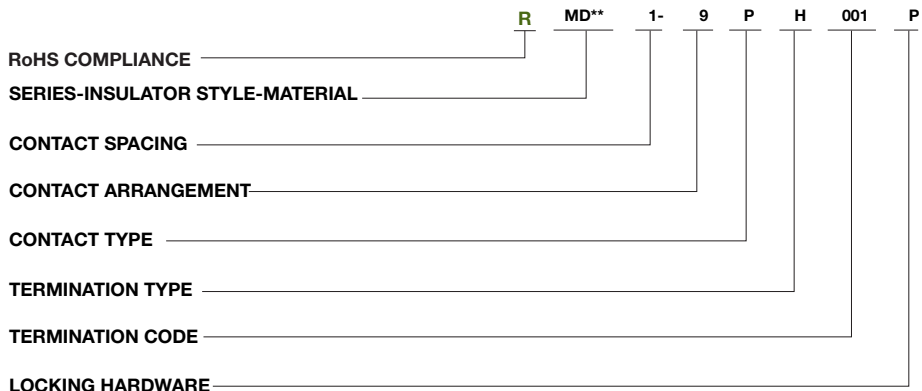
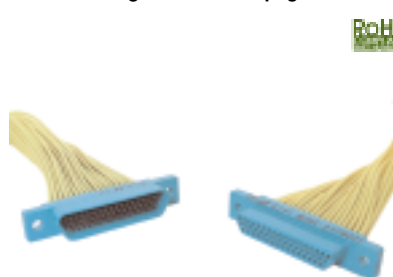
MECHANICAL FEATURES

| | |
|-------------------------|--------------------------|
| Size or Length | - 7 sizes |
| Coupling | - Friction/jackscrews |
| Polarization | - Keystone-shaped shells |
| Contact Spacing Centers | -.050 (1.27mm) |
| Shell Styles | - Plug and receptacle |

Consult factory for availability.

How to Order

PCB ordering information - page 30



SERIES-INSULATOR STYLE-MATERIAL

MDB - Screw mounting-Diallyl phthalate
MDVB - Screw mounting-Polyester

CONTACT SPACING

1 - .050 (1.27) centers

CONTACT ARRANGEMENT

9-15-21-25-31-37-51. See page 9

CONTACT TYPE

P - Pin S - Socket

TERMINATION TYPE

H - Insulated solid or stranded wire
L - Uninsulated solid wire
S - Solder pot to accept #26 AWG max. harness wire.

TERMINATION CODE

See page 79 and 81 for additional codes

(H) 001 - 18", 7/34 strand, #26 AWG, MIL-W-16878/4, Type E Teflon, Yellow.

(H) 003 - 18", 7/34 strand, #26 AWG, MIL-W-16878/4, Type E Teflon, color coded to MIL-STD-681 System I.

(L) 1 - 1/2" uninsulated solid #25 AWG gold plated copper.

(L) 2 - 1" uninsulated solid #25 AWG gold plated copper.

LOCKING HARDWARE (SCREW MOUNTING ONLY)

P - Jackpost
K - Jackscrew-standard
L - Jackscrew-low profile
F - Float mount
M - Military specification hardware, see page 13.

No designator - No hardware - standard mounting
.091 (2.31) hole diameter



Dimensions shown in inch (mm)
Specifications and dimensions subject to change

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Standard Wire Termination Codes

The following termination codes are listed for your information. For additional codes please refer to Appendix on page 79 and 81. **All wire lengths are minimum.**

Harness Type (H)

#26 AWG per MIL-W-16878 Type E Teflon, stranded.

| Length | All Yellow | Color Coded* |
|--------------|------------|--------------|
| 3 (76.2) | H020 | H027 |
| 6 (152.4) | H019 | H016 |
| 8 (203.2) | H026 | H034 |
| 10 (254.0) | H029 | H025 |
| 12 (304.8) | H028 | H002 |
| 18 (457.2) | H001 | H003 |
| 20 (508.0) | H038 | H023 |
| 24 (609.6) | H009 | H004 |
| 30 (762.0) | H010 | H005 |
| 36 (914.4) | H011 | H006 |
| 48 (1219.2) | H013 | H048 |
| 72 (1828.8) | H017 | H046 |
| 120 (3048.0) | H042 | H041 |

*Cavity #1 black

Solid Uninsulated Type (L)

#25 AWG Gold Plated Copper

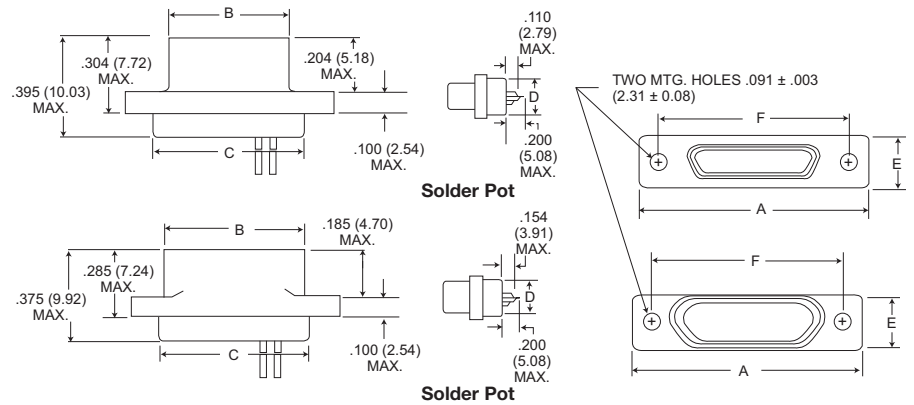
| Termination Code | Length |
|------------------|---------------|
| L61 | .125 (3.18) |
| L56 | .150 (3.81) |
| L57 | .190 (4.83) |
| L39 | .250 (6.35) |
| L58 | .375 (9.52) |
| L1 | .500 (12.70) |
| L14 | .750 (19.05) |
| L2 | 1.000 (25.40) |
| L7 | 1.500 (38.10) |
| L6 | 2.000 (50.80) |
| L16 | 2.500 (63.50) |
| L10 | 3.000 (76.20) |

With Screw Mounting Holes (Conforms to MIL-DTL-83513)



MDB Glass-filled Diallyl Phthalate Plastic Insulator

MDVB Glass-filled Polyester Plastic Insulator



| Part Number by Shell Size | | A Max. | B Max. | C Max. | D Max. | E Max. | F ±.005 | Avg. Weight*** ±5% (oz.) ±5% (gm.) |
|---------------------------|--------------------|---------------|---------------|---------------|-------------|-------------|---------------|------------------------------------|
| MDB1-9P** | MDVB1-9P** | .788 (20.02) | .292 (7.42) | .408 (10.36) | .173 (4.39) | .218 (5.54) | .565 (14.35) | .026 (0.73) |
| MDB1-9S** | MDVB1-9S** | .788 (20.02) | .380 (9.65) | .408 (10.36) | .173 (4.39) | .218 (5.54) | .565 (14.35) | .025 (0.70) |
| MDB1-15P** | MDVB1-15P** | .938 (23.82) | .442 (11.23) | .588 (14.17) | .173 (4.39) | .218 (5.54) | .715 (18.16) | .038 (1.10) |
| MDB1-15S** | MDVB1-15S** | .938 (23.82) | .530 (13.46) | .588 (14.17) | .173 (4.39) | .218 (5.54) | .715 (18.16) | .035 (1.00) |
| MDB1-21P** | MDVB1-21P** | 1.088 (27.64) | .592 (15.04) | .708 (17.98) | .173 (4.39) | .218 (5.54) | .865 (21.97) | .053 (1.50) |
| MDB1-21S** | MDVB1-21S** | 1.088 (27.64) | .680 (17.27) | .708 (17.98) | .173 (4.39) | .218 (5.54) | .865 (21.97) | .050 (1.40) |
| MDB1-25P** | MDVB1-25P** | 1.188 (30.18) | .692 (17.58) | .808 (20.56) | .173 (4.39) | .218 (5.54) | .965 (24.51) | .063 (1.80) |
| MDB1-25S** | MDVB1-25S** | 1.188 (30.18) | .780 (19.81) | .808 (20.56) | .173 (4.39) | .218 (5.54) | .965 (24.51) | .056 (1.60) |
| MDB1-31P** | MDVB1-31P** | 1.338 (33.98) | .842 (21.39) | .958 (24.33) | .173 (4.39) | .218 (5.54) | 1.115 (28.32) | .080 (2.30) |
| MDB1-31S** | MDVB1-31S** | 1.338 (33.98) | .930 (23.62) | .958 (24.33) | .173 (4.39) | .218 (5.54) | 1.115 (28.32) | .073 (2.10) |
| MDB1-37P** | MDVB1-37P** | 1.488 (37.80) | .992 (25.20) | 1.108 (28.14) | .173 (4.39) | .218 (5.54) | 1.265 (32.13) | .086 (2.45) |
| MDB1-37S** | MDVB1-37S** | 1.488 (37.80) | 1.080 (27.43) | 1.108 (28.14) | .173 (4.39) | .218 (5.54) | 1.265 (32.13) | .076 (2.15) |
| MDB1-51P** | MDVB1-51P** | 1.438 (36.52) | .942 (23.93) | 1.058 (26.87) | .220 (5.59) | .260 (6.60) | 1.215 (30.86) | .109 (3.10) |
| MDB1-51S** | MDVB1-51S** | 1.438 (36.52) | 1.030 (26.16) | 1.058 (26.87) | .220 (5.59) | .260 (6.60) | 1.215 (30.86) | .093 (2.64) |

** Add lead type and length, see Part Number Explanation.

*** Weight given is with 1/2", uninsulated solid #25 AWG gold plated copper pigtailed.

Dimensions shown in inch (mm)

Specifications and dimensions subject to change

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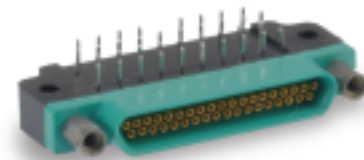


MD*B-PCB connectors use standard MD*B all plastic shells and are designed for use with flex circuitry, printed circuit and multi-layer boards. They are easily mounted and soldered and provide high density/high reliability in board-to-board and board-to-cable applications. While being similar to the MDM-PCB connectors, the MD*B-PCB connectors are all plastic, extremely small, and lightweight yet rugged enough for use in the most demanding applications.

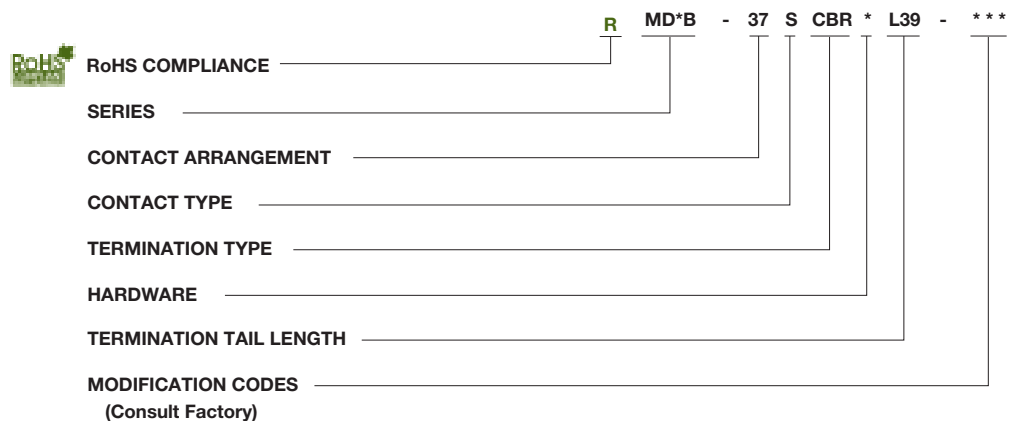
MD*B-PCB connectors are available in seven shell sizes with 9 to 51 contacts in the popular 90° narrow profile PCB termination, with a variety of tail lengths for varying board thickness.

Jackpost mounting for use with locking hardware is also available.

If the connectors shown in the catalog do not meet the requirements of your applications, a special shape, size or layout using the basic all plastic shell can be made available. For further technical and applications information, contact customer service.



How to Order



CONNECTOR SERIES

MDVB, MDB

CONNECTOR ARRANGEMENT

9, 15, 21, 25, 31, 51

CONTACT TYPE

S = Socket

P = Pin

TERMINATION TYPE

CBR = 90° Narrow Profile PCB Terminations

HARDWARE

P = Jackpost

M7 = Jackposts, M635135-07

No Letter = Less Hardware

TERMINATION TAIL LENGTH CODES

NONE - .109 (2.77) ± 0.15 (0.38) Standard

L61 - .125 (3.18)

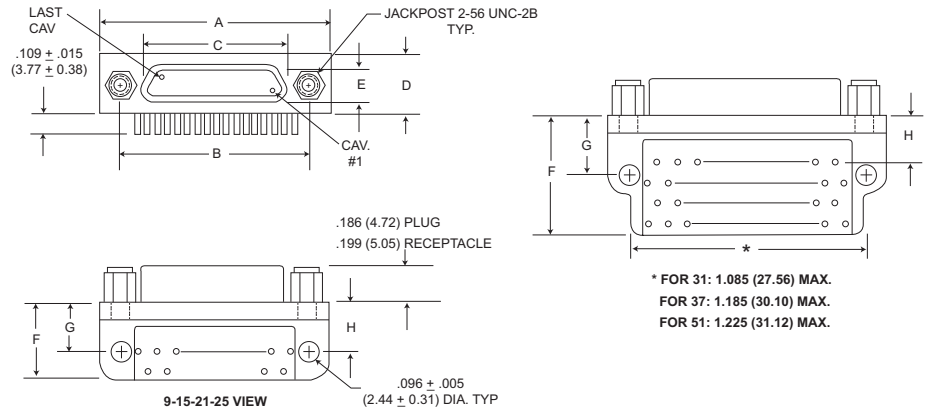
L66 - .150 (3.81)

L57 - .190 (4.83)

L39 - .250 (6.35)

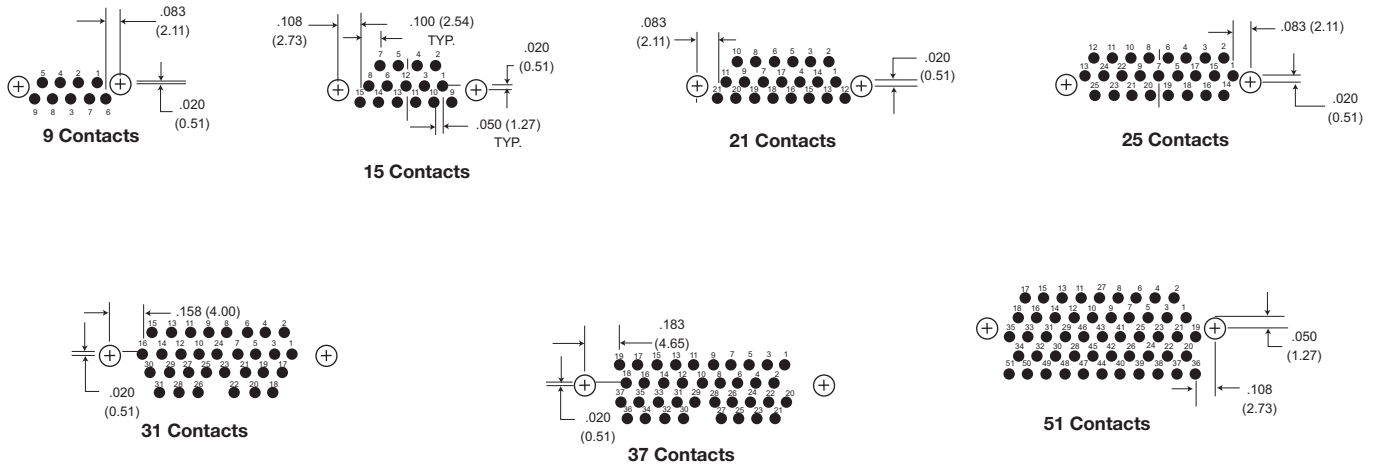
L58 - .375 (9.52)

CBR Series (90° Mounting Narrow Profile)



PCB Termination Arrangements (Viewed from bottom of connector, on PCB solder side.)

Identification number shown for plug connector, use reverse order for socket connector.



All Termination Configurations .100 (2.54) x .100 (2.54) Grid Pattern, Offset .050 (1.27)

| Part Number By Shell Size | A Max. | B ± .005 (0.13) | C Max. | D Max. | E Max. | F Max. | G ± .010 (0.25) | H ± .010 (0.25) |
|---------------------------|---------------|-----------------|---------------|-------------|-------------|--------------|-----------------|-----------------|
| MD*B-9PCBR* | .788 (20.01) | .565 (14.35) | .292 (7.42) | .218 (5.54) | .134 (3.40) | .420 (10.67) | .250 (6.35) | .230 (5.84) |
| MD*B-9SCBR* | .788 (20.01) | .565 (14.35) | .375 (9.52) | .218 (5.54) | .218 (5.54) | .420 (10.67) | .250 (6.35) | .230 (5.84) |
| MD*B-15PCBR* | .938 (23.82) | .715 (18.16) | .442 (11.23) | .218 (5.54) | .134 (3.40) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-15SCBR* | .938 (23.82) | .715 (18.16) | .525 (13.34) | .218 (5.54) | .218 (5.54) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-21PCBR* | 1.088 (27.63) | .865 (21.97) | .592 (15.04) | .218 (5.54) | .134 (3.40) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-21SCBR* | 1.088 (27.63) | .865 (21.97) | .675 (17.14) | .218 (5.54) | .218 (5.54) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-25PCBR* | 1.188 (30.17) | .965 (24.51) | .692 (17.58) | .218 (5.54) | .134 (3.40) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-25SCBR* | 1.188 (30.17) | .965 (24.51) | .775 (19.68) | .218 (5.54) | .218 (5.54) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-31PCBR* | 1.338 (33.98) | 1.115 (28.32) | .842 (21.39) | .218 (5.54) | .134 (3.40) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-31SCBR* | 1.338 (33.98) | 1.115 (28.32) | .925 (23.50) | .218 (5.54) | .218 (5.54) | .420 (10.67) | .250 (6.35) | .130 (3.30) |
| MD*B-37PCBR* | 1.488 (37.79) | 1.265 (32.13) | .994 (25.25) | .218 (5.54) | .134 (3.40) | .520 (13.21) | .250 (6.35) | .130 (3.30) |
| MD*B-37SCBR | 1.488 (37.79) | 1.265 (32.13) | 1.075 (27.30) | .218 (5.54) | .218 (5.54) | .520 (13.21) | .250 (6.35) | .130 (3.30) |
| MD*B-51PCBR* | 1.438 (36.52) | 1.215 (30.86) | .942 (23.93) | .258 (6.55) | .177 (4.50) | .550 (13.97) | .300 (7.62) | .150 (3.81) |
| MD*B-51SCBR | 1.438 (36.52) | 1.215 (30.86) | 1.026 (26.06) | .258 (6.55) | .258 (6.55) | .550 (13.97) | .300 (7.62) | .150 (3.81) |

* For jackpost locking add letter "P" or "M7".

NOTE: Standard lead termination is #24 AWG, solid copper, solder or tin dipped.

Dimensions shown in inch (mm)
Specifications and dimensions subject to change

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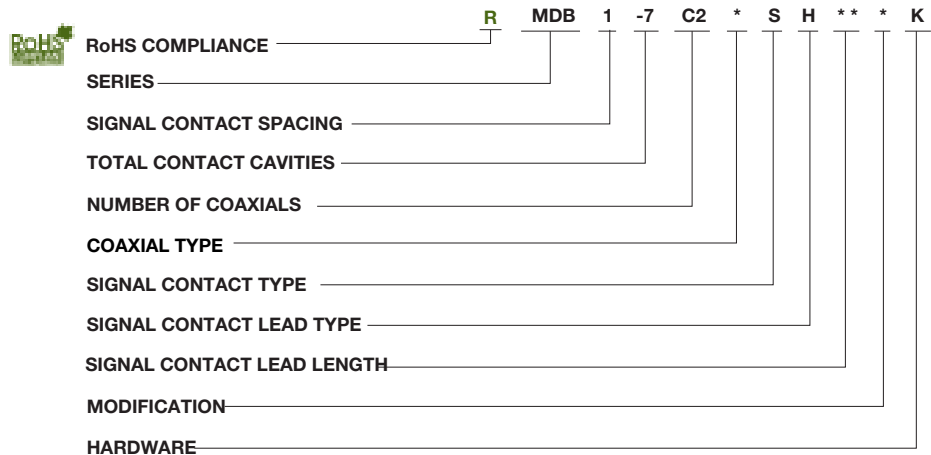


MDB Coaxial Series with Screw Mounting Holes

MDB connectors with two coaxial and five MICRO-PIN™/MICROSOCKET™ contacts. Crimp-type coaxial contacts accommodate RG-178/U cables. A plastic insertion/extraction tool is supplied with each connector assembly having removable coaxial assembly.



How to Order - MDB Coaxial



SERIES

Micro-D Coaxial

SIGNAL CONTACT SPACING

1 - .050 (1.27) centers

TOTAL CONTACT CAVITIES

NUMBER OF COAXIALS

COAXIAL TYPE

No Letter - Coaxial assembly installed and nonremovable
 RO - coaxial assembly ordered separately
 RA - Coaxial shipped assembled but uninstalled

SIGNAL CONTACT TYPE

P - Pin
 S - Socket

SIGNAL CONTACT LEAD TYPE

L - Uninsulated, solid wire
 H - Insulated, solid or stranded
 S - Solder pot*

SIGNAL CONTACT LEAD LENGTH

See Standard Wire Termination
 Code on page 29. Coaxial cable will be RG-178U unless otherwise specified; length will be same as wire modification.

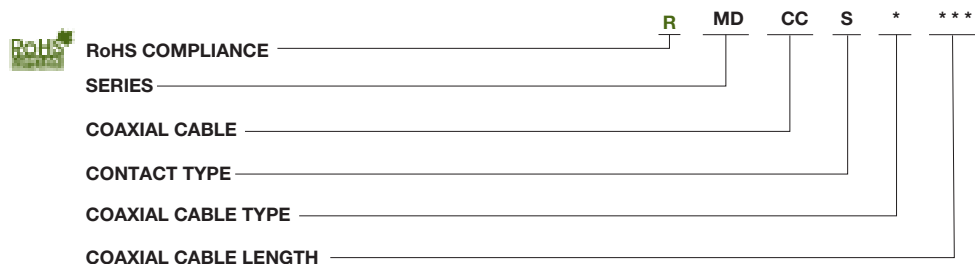
MODIFICATION

Consult customer service

HARDWARE

No letter - No hardware standard mounting. .091 (2.31) hole diameter
 F - Float
 K - Jackscrew (standard)
 L - Jackscrew (low profile)
 P - Jackpost
 * Not available with removalbe coax cable type connectors RO and RA.

How to Order - Coaxial Cable Assemblies



SERIES

MD

COAXIAL CABLE

CC

CONTACT TYPE

P - Pin (used with socket side connection)
 S - Socket (used with pin type connection)

COAXIAL CABLE TYPE

1 - RG178/U

COAXIAL CABLE LENGTH

See Standard Wire Termination
 Codes on page 29. Coaxial cable will be RG-178U unless otherwise specified; length will be the same as wire modification.



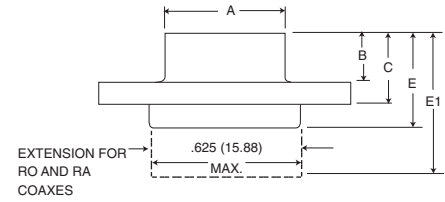
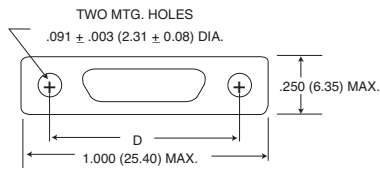
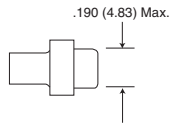
Dimensions shown in inch (mm)

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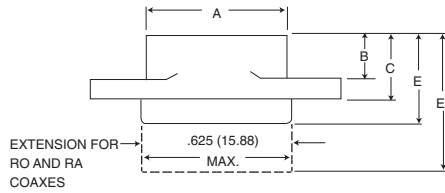
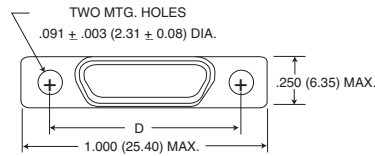
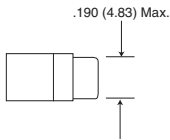
Dimension - MDB Coaxial Series

(See page 9 for layouts)

Plug



Receptacle



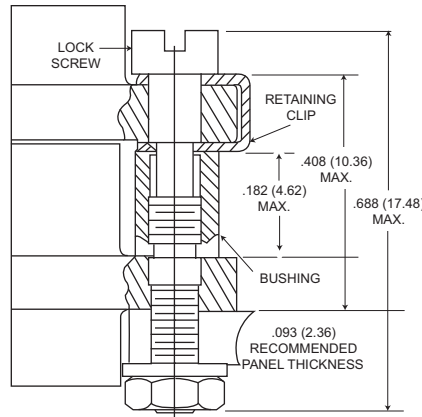
| Part Number by Shell Size | A Max. | B Max. | C Max. | D ± .005 (0.13) | E Max. | E1 Max. | Avg. Weight** (oz) ± 5% (gm.) ± 5% |
|------------------------------|--------------|-------------|-------------|--------------------|--------------|--------------|---------------------------------------|
| MDB1-7C2P* | .510 (12.95) | .204 (5.18) | .298 (7.57) | .782 (19.86) | .395 (10.03) | .510 (12.95) | .290 (8.30) |
| MDB1-7C2S* | .602 (15.29) | .185 (4.70) | .279 (7.09) | .782 (19.86) | .375 (9.52) | .540 (13.72) | .273 (7.80) |

* Add lead type and length, see Part Number Explanation.

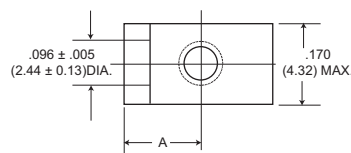
** Weight given is with 7 inch (177.80) insulated leads, #26 AWG silver plated copper pigtailed and RG178/U coaxials.

Mounting Hardware Views (Sizes 9-51)

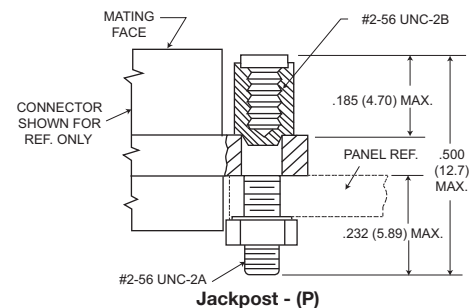
This hardware supplied unassembled.



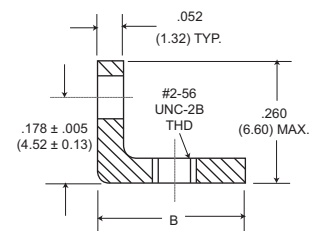
Screw Lock Assembly*



90° Angle Mounting Bracket



Jackpost - (P)

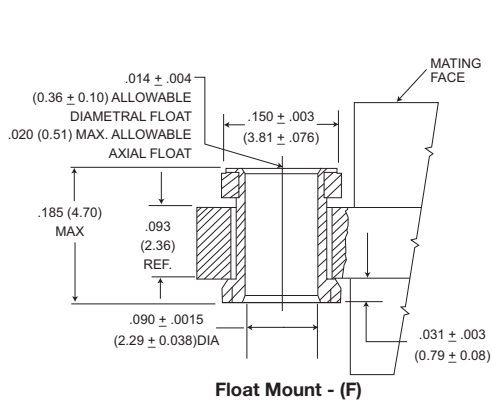


*NOTE: Torque value is 4.0 in/lbs max.

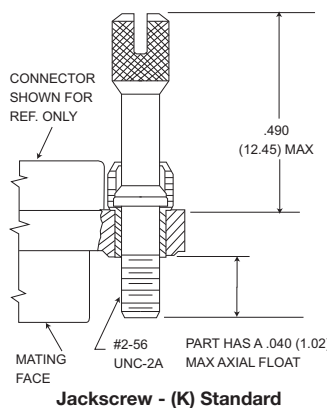
| Description | Part Number | A ± .005 (0.13) | B Max. |
|---|--------------|--------------------|----------------|
| Screw Lock Assembly | 322-9500-000 | | |
| Jackpost Kit | 320-9505-000 | | |
| Mounting Bracket, 90° Angle- MD*1 for 9 thru 37 Shell Sizes | 015-9516-000 | .100 (2.54) | .215 (5.46) |
| MD*1 for 51 Shell Size | 015-9516-000 | .122 (3.10) | .257 (6.53) |

NOTES: Screw lock assembly (322-9500-000) can be used for front front mounting. Jackpost kit (320-9505-000) consists of 2 assemblies, shipped unassembled.

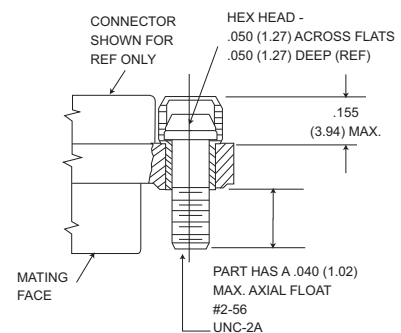
This hardware is factory installed.



Float Mount - (F)



Jackscrew - (K) Standard



Jackscrew - (L) Low Profile

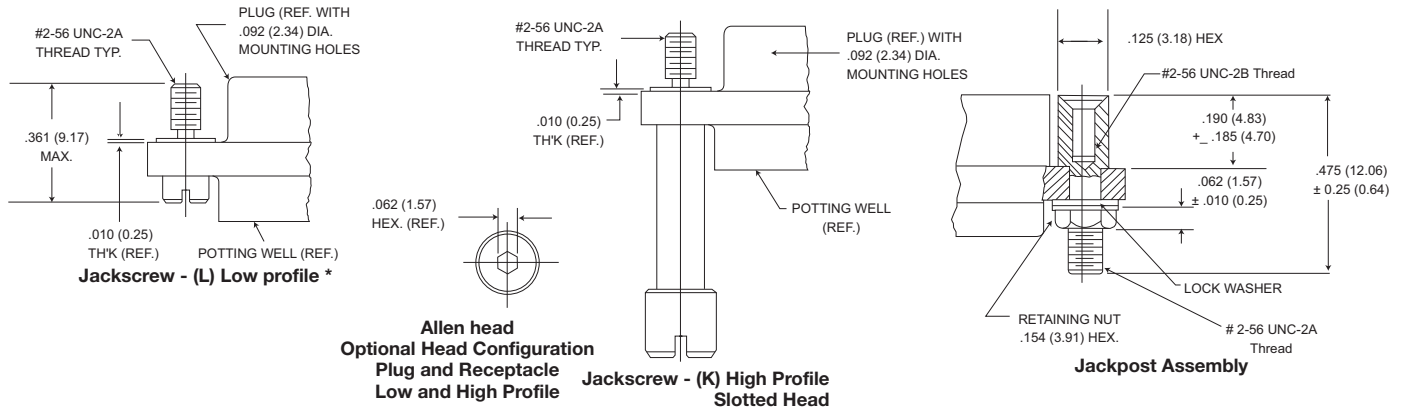
Shown here is a cutaway view of the float mount for the MD connector. The basic shell dimensions are the same for the float mount and the screw mounting hole configurations. View shown is for standard float mount front panel mounting. Reverse mounting is available on request.

* NOTE: Torque values are as follows:
Low Profile Jackscrew (L)-2.5 in/lbs
Standard Jackscrew (K)-2.5 in/lbs



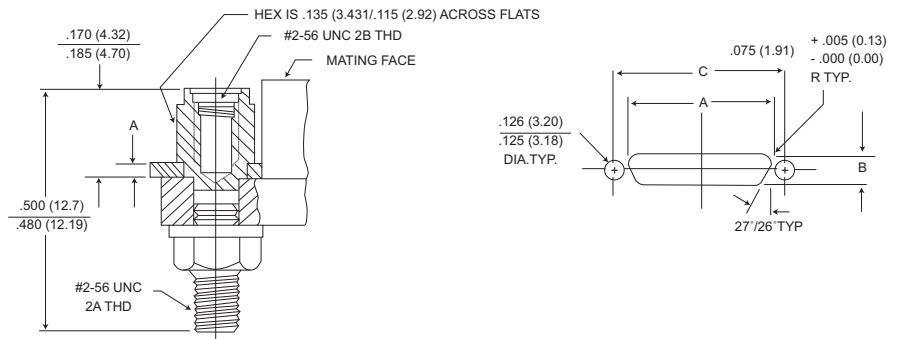
Mounting Hardware to Military Specification (Sizes 9 - 51) PER MIL-DTL-83513/5

This hardware supplied unassembled.



| Description | M83513/5 | Mode Code | Part Number |
|--|----------|-----------|--------------|
| Slotted Head Jackscrew Assy Low Profile | -05 | M5 | 320-9508-025 |
| Slotted Head Jackscrew Assy High Profile | -06 | M6 | 320-9508-027 |
| Allen Head Jackscrew Assy Low Profile | -02 | M2 | 320-9508-026 |
| Allen Head Jackscrew Assy High Profile | -03 | M3 | 320-9508-028 |
| Jackpost Assy | -07 | M7 | 320-9505-033 |

Jackpost Bushing (For Rear Panel Mounting)

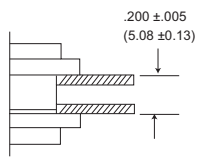


| Panel Thickness | A Dim. | Jackpost Kit Number* |
|-----------------|-----------------------|----------------------|
| 3/32 (2.4) | .092/.087 (2.34/2.21) | 320-9505-007 |
| 1/16 (1.6) | .061/.056 (2.34/1.42) | 320-9505-006 |
| 3/64 (1.2) | .047/.042 (1.19/1.07) | 320-9505-005 |
| 1/32 (0.8) | .030/.025 (0.76/0.64) | 320-9505-004 |

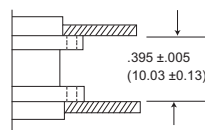
*2 Jackposts, 2 nuts, 2 washers.
NOTE: Torque value for jackpost 2.5 in/lbs

| Shell Size | Plug and Receptacle Dimensions | | |
|------------|--------------------------------|------------------------------|---------------|
| | A | B | C |
| | +.004 (0.10) -.000 (0.00) | +.004 (0.10) -.000 (0.00) | ±.005 (0.13) |
| 9 | .379 (9.63) | .219 (5.56) | .565 (14.35) |
| 15 | .529 (13.44) | .219 (5.56) | .715 (18.16) |
| 21 | .679 (17.25) | .219 (5.56) | .865 (21.97) |
| 25 | .779 (19.79) | .219 (5.56) | .965 (24.51) |
| 31 | .929 (23.60) | .219 (5.56) | 1.115 (28.32) |
| 37 | 1.079 (27.41) | .219 (5.56) | 1.265 (32.13) |
| 51 | 1.029 (26.14) | .261 (6.63) | 1.215 (30.86) |

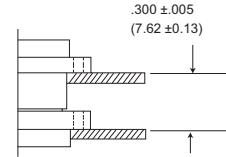
Panel Mounting Dimensions



Plug and Receptacle Rear Mounted



Plug and Receptacle Front Mounted



Plug Front Mounted Receptacle Rear Mounted

Dimensions shown in inch (mm)
Specifications and dimensions subject to change

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Panel Cutouts

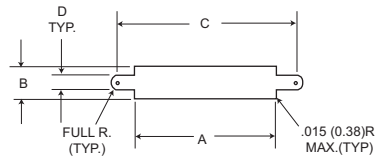


Figure 1
Front Mounting

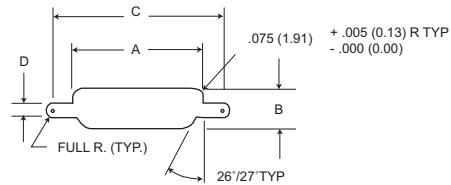


Figure 2
Rear Mounting

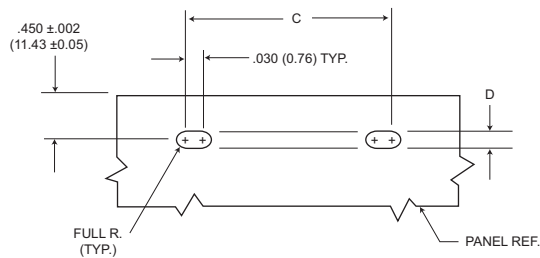


Figure 3
Edgeboard Mounting

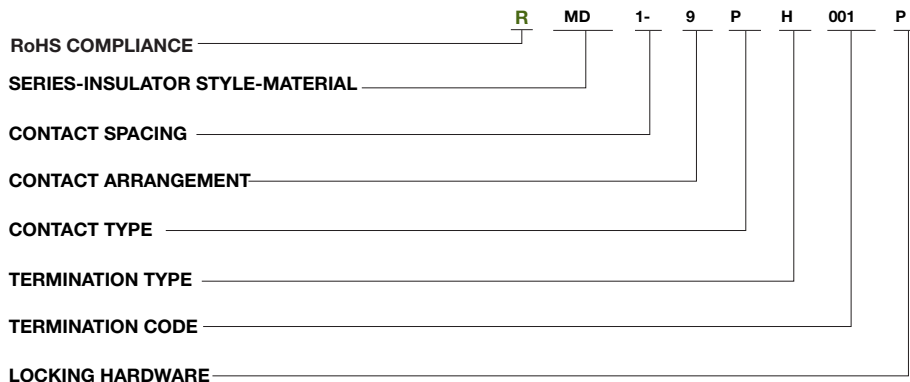
| Size | Cutout Figure | A | | B | | C | | D | |
|------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | + .004 (0.10) | - .000 (0.00) | + .004 (0.10) | - .000 (0.00) | + .005 (0.13) | - .000 (0.00) | + .005 (0.13) | - .000 (0.00) |
| 9 | 1 | .409 (10.39) | | .172 (4.37) | | .570 (14.48) | | .089 (2.26) | |
| | 2 | .379 (9.63) | | .219 (5.56) | | .570 (14.48) | | .089 (2.26) | |
| | 3 | - | | - | | .570 (14.48) | | .089 (2.26) | |
| 15 | 1 | .559 (14.20) | | .172 (4.37) | | .720 (18.29) | | .089 (2.26) | |
| | 2 | .529 (13.44) | | .219 (5.56) | | .720 (18.29) | | .089 (2.26) | |
| | 3 | - | | - | | .720 (18.29) | | .089 (2.26) | |
| 21 | 1 | .709 (18.00) | | .172 (4.37) | | .870 (22.10) | | .089 (2.26) | |
| | 2 | .679 (17.25) | | .219 (5.56) | | .870 (22.10) | | .089 (2.26) | |
| | 3 | - | | - | | .870 (22.10) | | .089 (2.26) | |
| 25 | 1 | .809 (20.55) | | .172 (4.37) | | .970 (24.64) | | .089 (2.26) | |
| | 2 | .779 (19.79) | | .219 (5.56) | | .970 (24.64) | | .089 (2.26) | |
| | 3 | - | | - | | .970 (24.64) | | .089 (2.26) | |
| 31 | 1 | .959 (24.36) | | .172 (4.37) | | 1.120 (28.45) | | .089 (2.26) | |
| | 2 | .929 (23.60) | | .219 (5.56) | | 1.120 (28.45) | | .089 (2.26) | |
| | 3 | - | | - | | 1.120 (28.45) | | .089 (2.26) | |
| 37 | 1 | 1.109 (28.17) | | .172 (4.37) | | 1.270 (32.26) | | .089 (2.26) | |
| | 2 | 1.079 (27.41) | | .219 (5.56) | | 1.270 (32.26) | | .089 (2.26) | |
| | 3 | - | | - | | 1.270 (32.26) | | .089 (2.26) | |
| 51 | 1 | 1.059 (26.90) | | .215 (5.46) | | 1.220 (30.99) | | .089 (2.26) | |
| | 2 | 1.029 (26.14) | | .261 (6.63) | | 1.220 (30.99) | | .089 (2.26) | |
| | 3 | - | | - | | 1.220 (30.99) | | .089 (2.26) | |

NOTES:

1. Front mounting (figure 1) and rear mounting (figure 2) accommodates #2-56 screws.
2. Front mounting is preferred. However, when rear mounting is necessary, use detail on previous page.
3. Edgeboard mounting bracket (figure3) uses #2-56 screws. Dimension .450 ± .002 (11.43 ± 0.05) locates the MD receptacle flush with the end of the board.

How to Order

PCB ordering information - page 30



SERIES-INSULATOR STYLE-MATERIAL

MD - Clip mounting -Diallyl phthalate
MDV - Clip mounting-Polyester

CONTACT SPACING

1 - .050 (1.27) centers

CONTACT ARRANGEMENT

9-15-21-25-31*-37-51. See page 7

CONTACT TYPE

P - Pin S - Socket

TERMINATION TYPE

H - Insulated solid or stranded wire
L - Uninsulated solid wire
S - Solder pot to accept #26 AWG max. harness wire.

TERMINATION CODE**

(H) 001 - 18", 7/34 strand, #26 AWG, MIL-W-16878/4, Type E Teflon, Yellow.
(H) 003 - 18", 7/34 strand, #26 AWG, MIL-W-16878/4, Type E Teflon, color coded to MIL-STD-681 System I.
(L) 1 - 1/2" uninsulated solid #25 AWG gold plated copper.
(L) 2 - 1" uninsulated solid #25 AWG gold plated copper.
No designator - No hardware - standard mounting
.091 (2.31) hole diameter

* Not available in clip mounting.

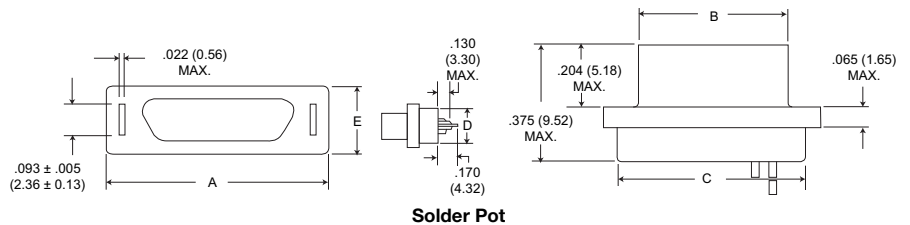
** See page 79 and 81 for additional codes.

With Clip Mounting Slots

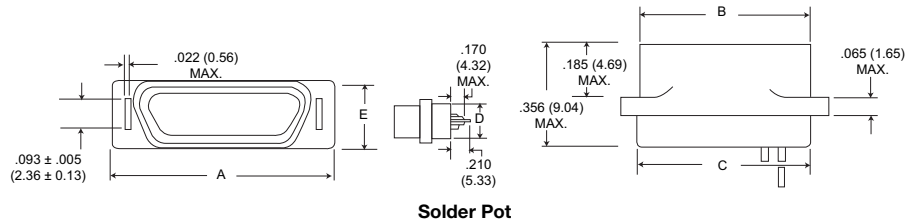
Plug

MD Glass-filled Diallyl Phthalate Plastic Insulator

MDV Glass-filled Polyester Plastic Insulator



Receptacle



| Part Number by Shell Size | A Max. | B Max. | C Max. | D Max. | E Max. | Avg. Weight*** ±5% (oz.)/±5% (gm.) |
|---------------------------|---------------|---------------|---------------|-------------|-------------|---------------------------------------|
| MD1-9P** MDV1-9-P** | .512 (13.00) | .292 (7.42) | .405 (10.29) | .170 (4.32) | .215 (5.46) | .026 (0.73) |
| MD1-9S** MDV1-9S** | .512 (13.00) | .376 (9.55) | .405 (10.29) | .170 (4.32) | .215 (5.46) | .026 (0.73) |
| MD1-15P** MDV1-15P** | .662 (16.81) | .442 (11.23) | .555 (14.10) | .170 (4.32) | .215 (5.46) | .038 (1.10) |
| MD1-15S** MDV1-15S** | .662 (16.81) | .526 (13.36) | .555 (14.10) | .170 (4.32) | .215 (5.46) | .035 (1.00) |
| MD1-21P** MDV1-21P** | .812 (20.62) | .592 (15.04) | .705 (17.91) | .170 (4.32) | .215 (5.46) | .053 (1.50) |
| MD1-21S** MDV1-21S** | .812 (20.62) | .676 (17.17) | .705 (17.91) | .170 (4.32) | .215 (5.46) | .050 (1.40) |
| MD1-25P** MDV1-25P** | .912 (23.16) | .692 (17.58) | .805 (20.45) | .170 (4.32) | .215 (5.46) | .063 (1.80) |
| MD1-25S** MDV1-25S** | .912 (23.16) | .776 (19.71) | .805 (20.45) | .170 (4.32) | .215 (5.46) | .056 (1.60) |
| MD1-37P** MDV1-37P** | 1.212 (30.78) | .992 (25.20) | 1.105 (28.07) | .170 (4.32) | .215 (5.46) | .086 (2.45) |
| MD1-37S** MDV1-37S** | 1.212 (30.78) | 1.076 (27.33) | 1.105 (28.07) | .170 (4.32) | .215 (5.46) | .076 (2.15) |
| MD1-51P** MDV1-51P** | 1.162 (29.51) | .942 (23.93) | 1.055 (26.80) | .213 (5.41) | .258 (6.55) | 1.09 (3.10) |
| MD1-51S** MDV1-51S** | 1.162 (29.51) | 1.026 (26.06) | 1.055 (26.80) | .213 (5.41) | .258 (6.55) | .093 (2.65) |

** Add lead type and length, see Part Number Explanation. *** Weight given is with 1/2", uninsulated solid #25 AWG gold plated copper pigtailed.

Dimensions shown in inch (mm)

Specifications and dimensions subject to change

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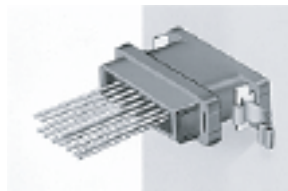


Panel Mounting Hardware

Clip Mounting

Illustrated is the recommended method of front mounting with metal panel mounting keys. Panel mounting keys are available with or without coupling retention clips.

For front mounting, place the rear of the connector thru the panel cutout. With the mounting flange against the panel, fully insert the panel mounting keys thru the slots in the flange and thru the panel cutout. Retaining the keys in this position, bend them outward against the rear of the panel. When mating a front mounted connector with an unmounted connector, a coupling retention clip assembly may be used to securely lock the two together. Mounting screw brackets are available and may be used instead of the panel mounting keys.



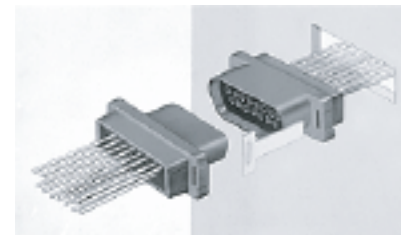
Coupling Retention Clip
(see Figure 2)



Mounting Screw Brackets
(see Figures 1 and 3)



Edgeboard Mounted
(see Figure 4)



Panel Mounting Key

| Description | Part Number |
|---|--------------|
| Panel Mounting Key | 201-9100-000 |
| Mounting Key and Coupling Clip Assembly | 294-9100-000 |
| Mounting Screw Bracket | 015-9100-000 |
| * Edgeboard Mounting Bracket | 015-5009-000 |

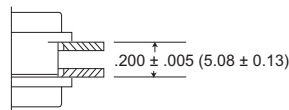
** Edgeboard Mounting Bracket and

Coupling Clip Assembly **MD51428-1**

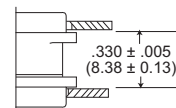
* Must be ordered separately; specify left and right hand for complete assembly.

** Must be ordered separately; assembly contains set of left and right hand types.

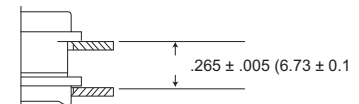
Dimensions (Clip Mounting Only)



Plug and Receptacle Rear Mounted



Plug and Receptacle Front Mounted



Plug Front Mounted Receptacle Rear Mounted

Panel Cutouts

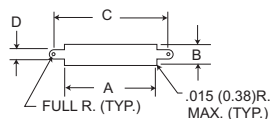


Figure 1

Front Mounting

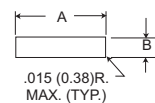


Figure 2

Edgeboard Mounting

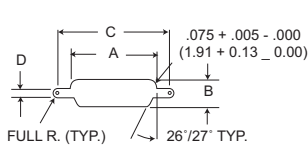


Figure 3

Rear Mounting

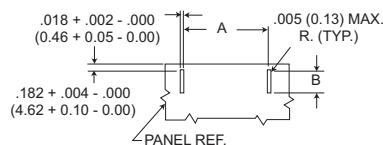


Figure 4

Edgeboard Mounting

1. A panel thickness of 1/8" (3.17mm) maximum is recommended for ease of tab bending when a panel mounting key & clip assembly or edgeboard mounting brackets are used.
2. Front mounting is preferred. However, when rear mounting is necessary, use figure 3 for dimensions.
3. Figure 4 is for edge board mounting bracket or edgeboard clip assembly. The .184 + .002 (2.67 + .05) dimension locates the MD socket insulator flush with the end of the board.
4. Screw brackets (015-9100-000) will accommodate #2-56 screws.
5. Front mounting (Figure 1) and rear mounting (Figure 3) accommodate #2-56 screws.

| Shell Size | Cutout Figure | A | B | C | D |
|------------|---------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | | + .004 (0.10) - .000 (0.00) | + .004 (0.10) - .000 (0.00) | + .004 (0.10) - .000 (0.00) | + .005 (0.13) - .000 (0.00) |
| 9 | 1 | .408 (10.36) | .172 (4.37) | .650 (16.51) | .089 (2.26) |
| | 2 | .408 (10.36) | .172 (4.37) | - | - |
| | 3 | .378 (9.60) | .217 (5.51) | .650 (16.51) | .089 (2.26) |
| | 4 | .400 (10.16) | .091 (2.31) | - | - |
| 15 | 1 | .588 (14.94) | .172 (4.37) | .795 (20.19) | .089 (2.26) |
| | 2 | .588 (14.94) | .172 (4.37) | - | - |
| | 3 | .528 (13.28) | .217 (5.51) | .795 (20.19) | .089 (2.26) |
| | 4 | .550 (13.97) | .091 (2.31) | - | - |
| 21 | 1 | .738 (18.75) | .172 (4.37) | .945 (24.00) | .089 (2.26) |
| | 2 | .738 (18.75) | .172 (4.37) | - | - |
| | 3 | .678 (17.27) | .217 (5.51) | .945 (24.00) | .089 (2.26) |
| | 4 | .700 (17.78) | .091 (2.31) | - | - |
| 25 | 1 | .838 (21.29) | .172 (4.37) | 1.045 (26.54) | .089 (2.26) |
| | 2 | .838 (21.29) | .172 (4.37) | - | - |
| | 3 | .778 (19.76) | .217 (5.51) | 1.045 (26.54) | .089 (2.26) |
| | 4 | .800 (20.32) | .091 (2.31) | - | - |
| 37 | 1 | 1.138 (28.91) | .172 (4.37) | 1.345 (34.16) | .089 (2.26) |
| | 2 | 1.138 (28.91) | .172 (4.37) | - | - |
| | 3 | 1.078 (27.38) | .217 (5.51) | 1.345 (34.16) | .089 (2.26) |
| | 4 | 1.100 (27.94) | .091 (2.31) | - | - |
| 51 | 1 | 1.088 (27.64) | .215 (5.46) | 1.295 (32.89) | .089 (2.26) |
| | 2 | 1.088 (27.64) | .215 (5.46) | - | - |
| | 3 | 1.028 (26.11) | .260 (6.60) | 1.295 (32.89) | .089 (2.26) |
| | 4 | 1.050 (26.67) | .091 (2.31) | - | - |



Dimensions shown in inch (mm)
Specifications and dimensions subject to change

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