

Dual Port Series

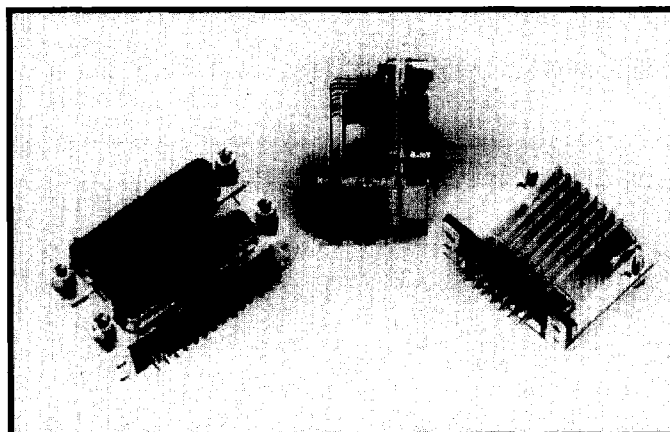
PROFESSIONAL QUALITY PRINTED BOARD MOUNT DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Size 20 Contacts
Two Connectors Vertically
Stacked and Assembled
As A Single Connector Unit
Professional Quality
Connectors
IEC Publication 807-2
Performance Level Two

U.L. Recognized
File #E49351

CSA Recognized
File #LR54219

Telecommunication
U.L. File #14098



The Dual Port Series is a utilization of two connectors, vertically stacked and assembled into a single connector unit, which permits saving of panel and printed board space. Final assembly costs are reduced by condensing two assembly movements into one movement.

Dual Port Series connectors are professional quality connectors recommended for use in sheltered, non-corrosive indoor or outdoor environments having normal ventilation, but without temperature or humidity controls.

Connector contact variants are 9, 15, 25, 29, 37 and 50. Connector genders may be mixed, i.e., one male and one female connector within one Dual Port assembly. The two connectors may be spaced apart to three standard dimensional spacings to accommodate various dimensions of discrete hoods or molded hood assemblies. The connector may also be partially populated with contacts which are installed in the connector body to customer selected contact positions, thereby reducing connector costs.

Dual Port Series connectors are offered with two printed board contact hole patterns. One pattern is dimensional in inches and the other pattern is dimensioned in millimeters. These patterns are commonly known as *Inch Footprints* and *Metric Footprints*.

Mounting angle brackets can be ordered riveted to the connector by specifying R2, R6, R7 or R8 options. These options provide for labor saving ease of connector mounting to the printed board and also permit rapid jackscrew installation.

Locking systems are available utilizing 4-40 threaded jackscrew systems, polarized or nonpolarized, or with a quick release Vibration Lock System for either front or rear panel mounted connectors.

Dual Port Series connectors comply with the dimensional and performance requirements of IEC 807-2 Performance Level Two and dimensional requirements of MIL-C-24308. Dual Port Series connectors also meet the interface connection requirements for EIA RS 232 and RS 449, and the CCITT X.24 recommendations.

DUAL PORT SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Nylon resin, UL 94V-0, black color.
Contacts:	Male contacts — precision machined brass alloy. Female contacts — precision machined high tensile phosphor bronze.
Contact Plating:	Gold flash over nickel plate.
Shells:	Steel or brass with tin plate; zinc plate with dichromate seal.
Mounting Spacers and Brackets:	Steel or brass with tin plate; zinc plate with dichromate seal.
Cross Bar:	Nylon resin, UL 94V-0, black color.
Push-On Fasteners:	Beryllium copper with tin plate.
Jackscrew Systems:	Steel with zinc plate and dichromate seal, or clear zinc plate.
Vibration Lock Systems:	Slide lock and lock tabs, steel with nickel plate.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	5 amperes.
Initial Contact Resistance:	0.008 ohms maximum.
Proof Voltage:	1000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance (minimum):	0.039 inch (1.0mm).
Working Voltage:	300 V r.m.s.

MECHANICAL CHARACTERISTICS:

Fixed Contacts:	Size 20 contact, male contact—0.040 inch (1.02mm) diameter. Female contact—rugged open entry design.
Contact Retention In Insulator:	6 lbs. (27 N)
Contact Terminations:	Printed board mount with 90° terminations supported in footprint pattern by a plastic cross bar. Termination diameter 0.028 inch (0.71mm) and 0.024 (0.60mm).
Shells:	Male shells may be dimpled for EMI/ESD ground paths.
Polarization:	Trapezoidally shaped shells and polarized jackscrews.
Mounting Bracket Riveted to Connector:	Riveted fasteners with 0.120 inch (3.05mm) diameter clearance hole, 4-40 threads, or 4-40 threads with nylon lock insert.
Mounting To Printed Board:	Rapid installation push-on fasteners.
Locking Systems:	Jackscrews and vibration locking systems for either front or rear panel mounted connectors.
Mechanical Operations:	500 operations minimum per IEC 512-5.

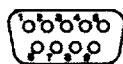
CLIMATIC CHARACTERISTICS:

Temperature Range:	– 55°C to + 125°C.
Damp Heat, Steady State:	10 days.

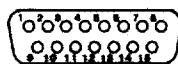
PROFESSIONAL QUALITY PRINTED BOARD MOUNT DUAL PORT
VERTICALLY STACKED CONNECTOR ASSEMBLY
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

CONTACT VARIANTS

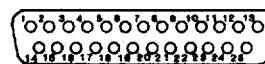
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



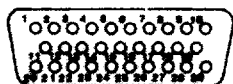
DP9/MDP9



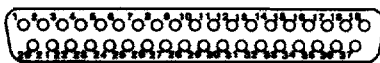
DP15/MDP15



DP25/MDP25



DP29/MDP29

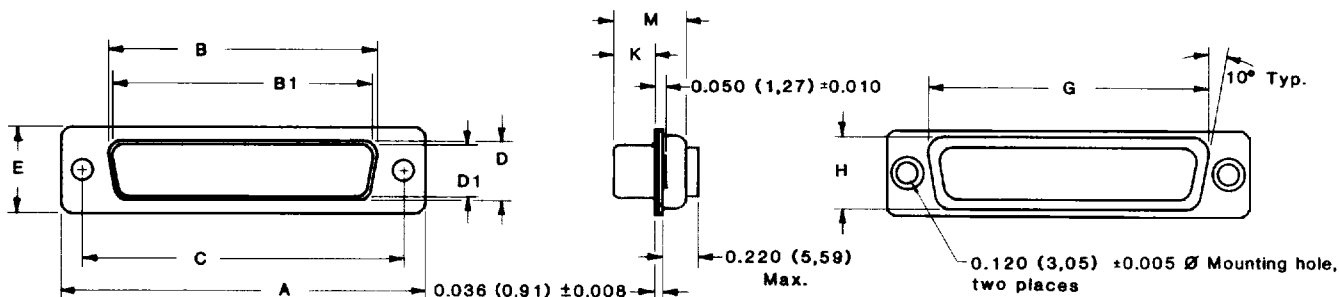


DP37/MDP37



DP50/MDP50

STANDARD SHELL ASSEMBLY



CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
9 M	1.213 (30,81)		0.666 (16,92)	0.984 (24,99)		0.329 (8,36)	0.494 (12,55)	0.759 (19,28)	0.422 (10,72)	0.233 (5,92)	0.422 (10,72)
9 F	1.213 (30,81)	0.643 (16,33)		0.984 (24,99)	0.311 (7,90)		0.494 (12,55)	0.759 (19,28)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
15 M	1.541 (39,14)		0.994 (25,25)	1.312 (33,32)		0.329 (8,36)	0.494 (12,55)	1.083 (27,51)	0.422 (10,72)	0.233 (5,92)	0.422 (10,72)
15 F	1.541 (39,14)	0.971 (24,66)		1.312 (33,32)	0.311 (7,90)		0.494 (12,55)	1.083 (27,51)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
25 M	2.088 (53,04)		1.534 (38,96)	1.852 (47,04)		0.329 (8,36)	0.494 (12,55)	1.625 (41,28)	0.422 (10,72)	0.230 (5,84)	0.426 (10,82)
25 F	2.088 (53,04)	1.511 (38,38)		1.852 (47,04)	0.311 (7,90)		0.494 (12,55)	1.625 (41,28)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
29 M	1.770 (44,96)		1.274 (32,36)	1.534 (38,96)		0.450 (11,43)	0.605 (15,37)	1.322 (33,58)	0.539 (13,69)	0.217 (5,51)	0.426 (10,82)
29 F	1.770 (44,96)	1.251 (31,78)		1.534 (38,96)	0.431 (10,95)		0.605 (15,37)	1.322 (33,58)	0.539 (13,69)	0.237 (6,02)	0.429 (10,90)
37 M	2.729 (69,32)		2.182 (55,42)	2.500 (63,50)		0.329 (8,36)	0.494 (12,55)	2.272 (57,71)	0.422 (10,72)	0.230 (5,84)	0.426 (10,82)
37 F	2.729 (69,32)	2.159 (54,84)		2.500 (63,50)	0.311 (7,90)		0.494 (12,55)	2.272 (57,71)	0.422 (10,72)	0.243 (6,17)	0.429 (10,90)
50 M	2.635 (66,93)		2.079 (52,81)	2.406 (61,11)		0.441 (11,20)	0.605 (15,37)	2.178 (55,32)	0.534 (13,56)	0.230 (5,84)	0.426 (10,82)
50 F	2.635 (66,93)	2.064 (52,43)		2.406 (61,11)	0.423 (10,74)		0.605 (15,37)	2.178 (55,32)	0.534 (13,56)	0.243 (6,17)	0.429 (10,90)

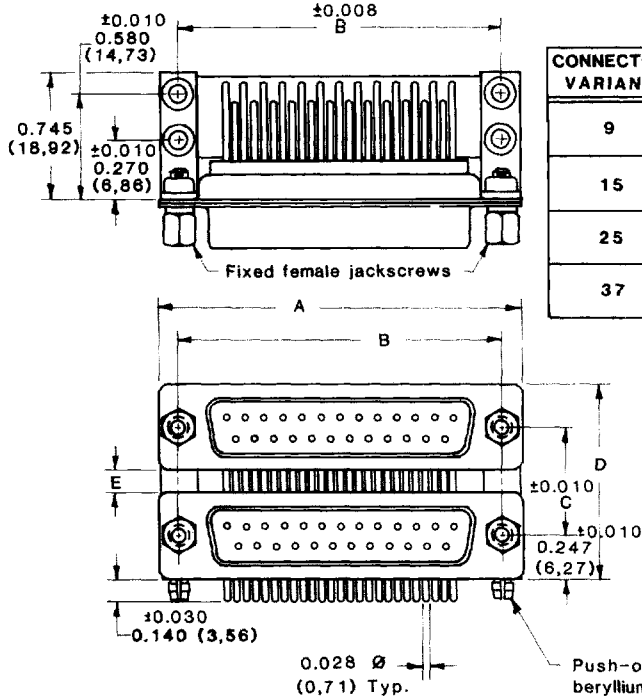
DIMENSIONS ARE IN INCHES (MILLIMETERS)
ALL DIMENSIONS SUBJECT TO CHANGE



PROFESSIONAL QUALITY PRINTED BOARD MOUNT DUAL PORT
VERTICALLY STACKED CONNECTOR ASSEMBLY
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

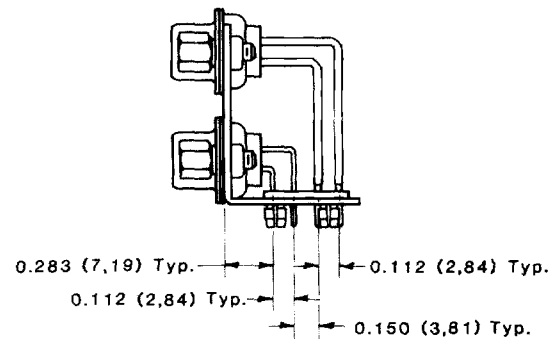
90° PRINTED BOARD MOUNT CONNECTOR

4 ROW CONNECTOR UNIT, 0.283(7,19) CONTACT EXTENSION



CONNECTOR VARIANT	NO. OF CONTACTS	A	B
9	18	1.213 (30,81)	0.984 (24,99)
15	30	1.541 (39,14)	1.312 (33,32)
25	50	2.088 (53,04)	1.852 (47,04)
37	74	2.729 (69,32)	2.500 (63,50)

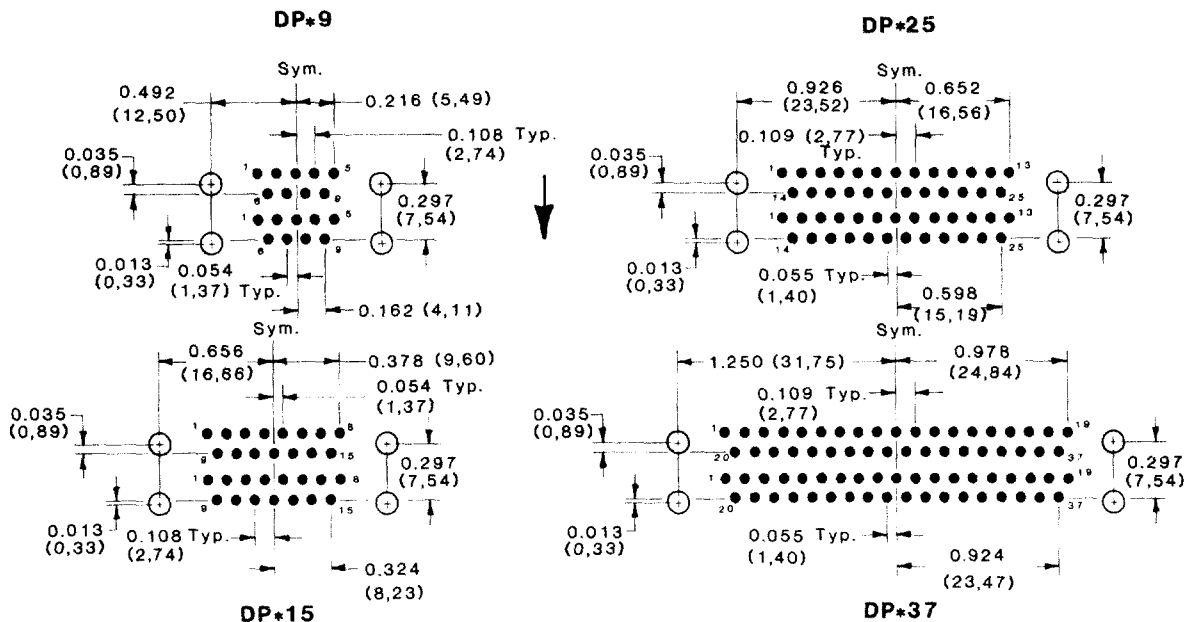
CONNECTOR DESIGNATION	C	D	E
DPA	0.625 (15,88)	1.119 (28,42)	0.131 (3,33)
DPB	0.750 (19,05)	1.244 (31,60)	0.256 (6,50)
DPC	0.900 (22,86)	1.394 (35,41)	0.406 (10,31)



Typical part number: DPA25MN8T2/25MN8T2X

CONTACT HOLE PATTERN

Hole identification shown is for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.



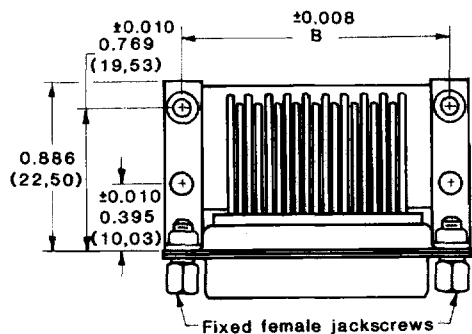
Mounting holes must move 0.020 ± 0.010 (0,51) opposite direction of arrow for use of unriveted mounting bracket with connectors.

Suggest 0.045 ± 0.002 (1,14) $\varnothing$ hole for contact termination positions.

Suggest 0.123 ± 0.003 (3,12) $\varnothing$ hole for mounting connector with push-on fasteners.

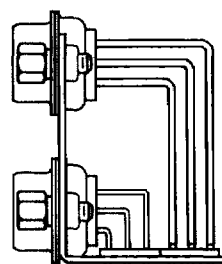
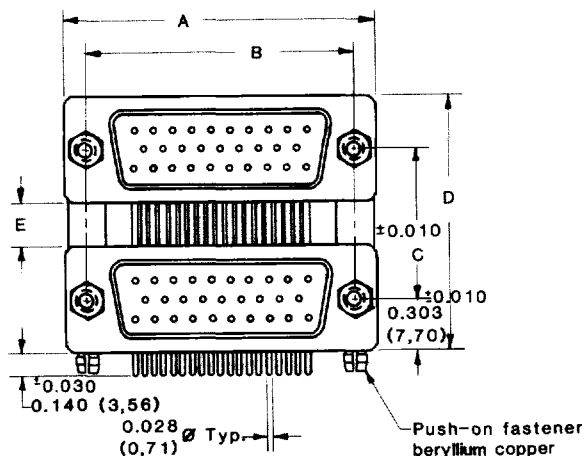
DIMENSIONS ARE IN INCHES (MILLIMETERS)
ALL DIMENSIONS SUBJECT TO CHANGE

90° PRINTED BOARD MOUNT CONNECTOR
6 ROW CONNECTOR UNIT, 0.283 (7,19) CONTACT EXTENSION



CONNECTOR VARIANT	NO. OF CONTACTS	A	B
29	58	1.770 (44,96)	1.534 (38,96)
50	100	2.635 (66,93)	2.406 (61,11)

CONNECTOR DESIGNATION	C	D	E
DPB	0.750 (19,05)	1.355 (34,42)	0.145 (3,68)
DPC	0.900 (22,86)	1.505 (38,23)	0.295 (7,49)

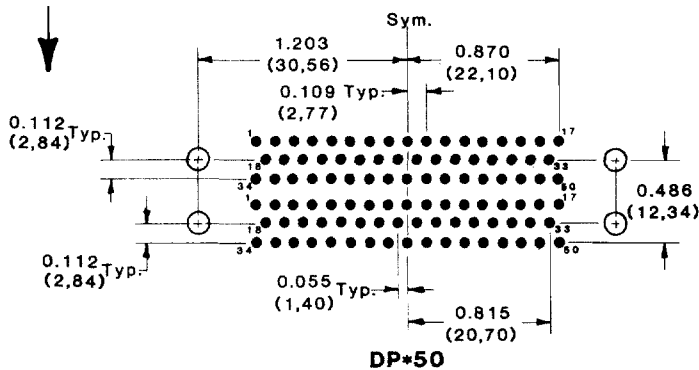
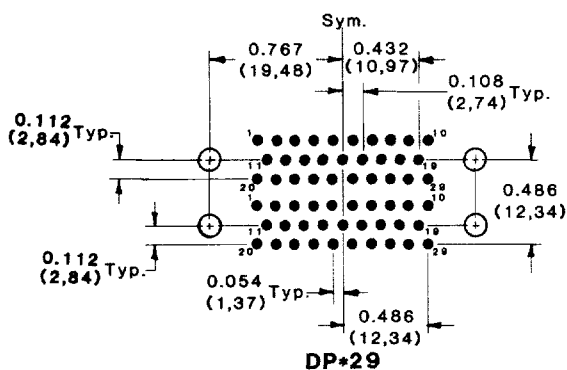


0.283 (7,19) Typ.
0.112 (2,84) Typ.
0.112 (2,84) Typ.
0.112 (2,84) Typ.
0.150 (3,81) Typ.

Typical part number: DPB29MN8T2/29MR8T2X

CONTACT HOLE PATTERN

Hole identification shown is for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.



Suggest 0.045 ±0.002 (1,14) Ø hole for contact termination positions.

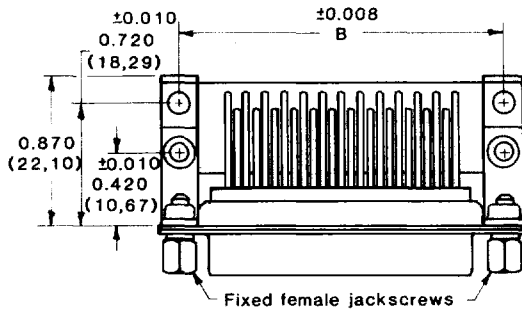
Suggest 0.123 ±0.003 (3,12) Ø hole for mounting connector with push-on fasteners.

Mounting holes must move 0.020 ±0.010 (0,51) opposite direction of arrow for use of unrveted mounting bracket with connectors.

DIMENSIONS ARE IN INCHES (MILLIMETERS)
ALL DIMENSIONS SUBJECT TO CHANGE

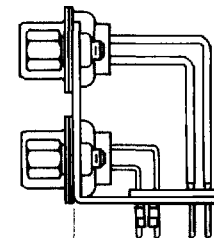
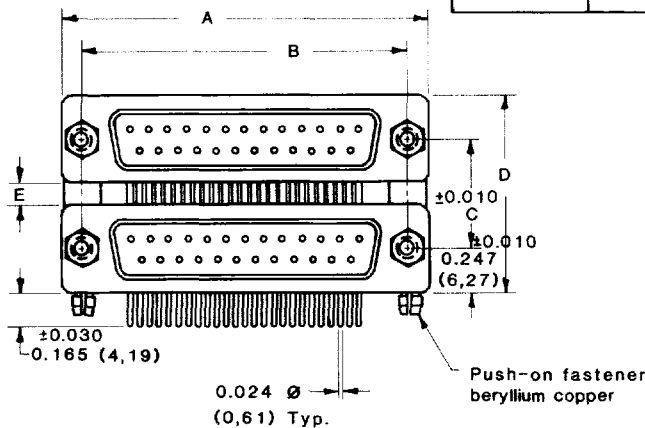


METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR
4 ROW CONNECTOR UNIT, 0.370 (9,40) CONTACT EXTENSION



CONNECTOR VARIANT	NO. OF CONTACTS	A	B
9	18	1.213 (30,81)	0.984 (24,99)
15	30	1.541 (39,14)	1.312 (33,32)
25	50	2.088 (53,04)	1.852 (47,04)
37	74	2.729 (69,32)	2.500 (63,50)

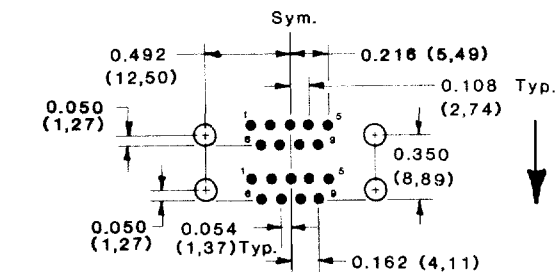
CONNECTOR DESIGNATION	C	D	E
MDPA	0.626 (15,90)	1.120 (28,45)	0.132 (3,35)
MDPB	0.752 (19,10)	1.246 (31,85)	0.258 (6,55)
MDPC	0.902 (22,90)	1.396 (35,46)	0.408 (10,36)



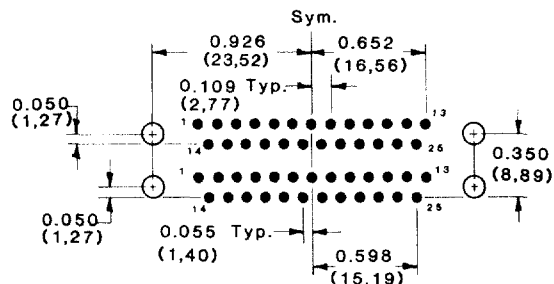
Typical part number: MDPA25MR8T2/25MN8T2X

METRIC SYSTEM CONTACT HOLE PATTERN

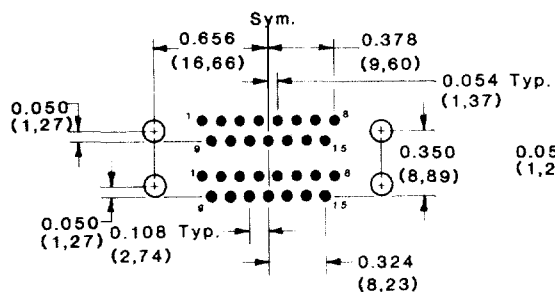
Hole identification shown is for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.



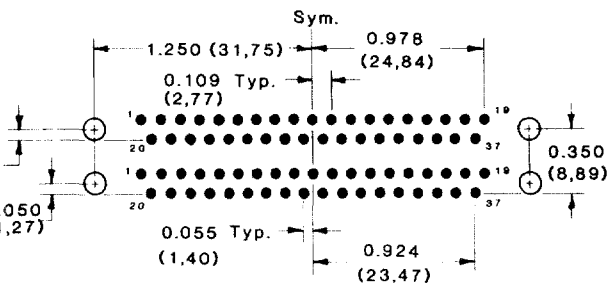
MDP*9



MDP*25



MDP*15



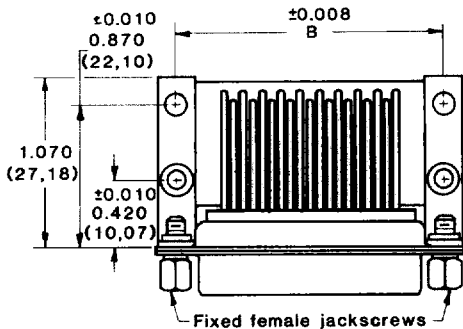
MDP*37

DIMENSIONS ARE IN INCHES (MILLIMETERS)
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Suggest 0.039 ±0.002 (1,00) Ø hole for contact termination positions.

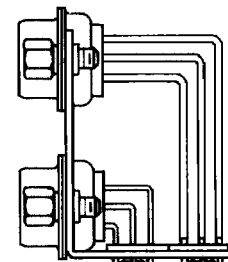
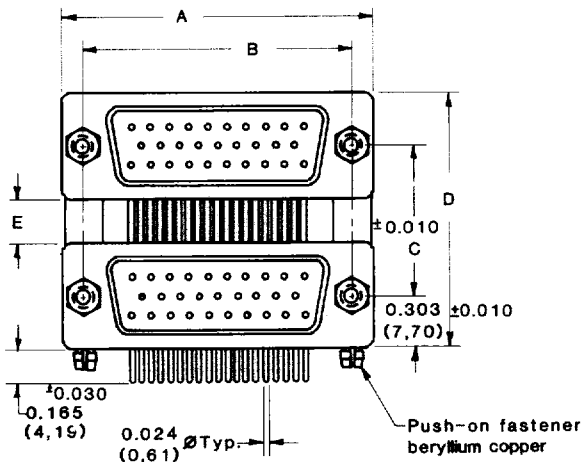
Suggest 0.123 ±0.003 (3,12) Ø hole for mounting connector with push-on fasteners.

METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR
6 ROW CONNECTOR UNIT, 0.370 (9,40) CONTACT EXTENSION



CONNECTOR VARIANT	NO. OF CONTACTS	A	B
29	58	1.770 (44,96)	1.534 (38,96)
50	100	2.635 (66,93)	2.406 (61,11)

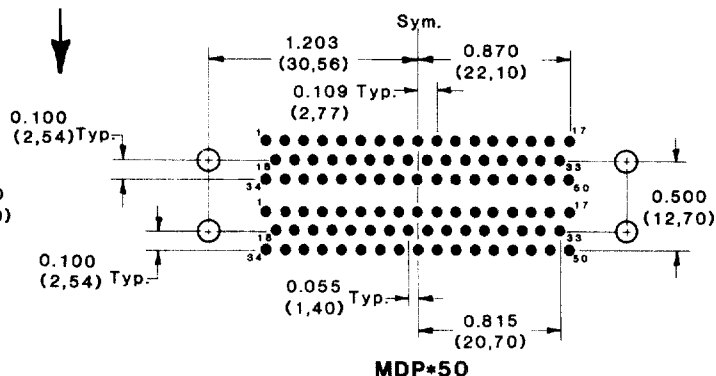
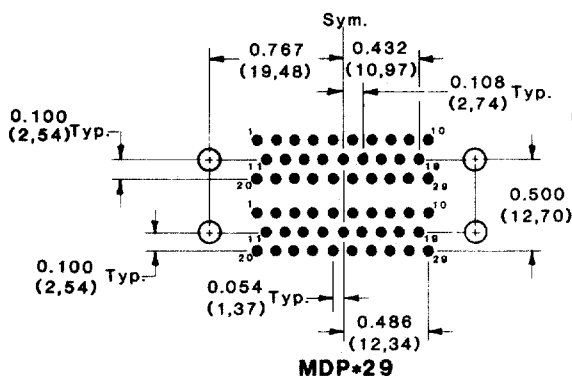
CONNECTOR DESIGNATION	C	D	E
MDPB	0.752 (19,10)	1.357 (34,47)	0.147 (3,73)
MDPC	0.902 (22,90)	1.507 (38,28)	0.297 (7,54)



Typical part number: MDPB29MN7T2/29MN7T2X

METRIC SYSTEM CONTACT HOLE PATTERN

Hole identification shown is for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.



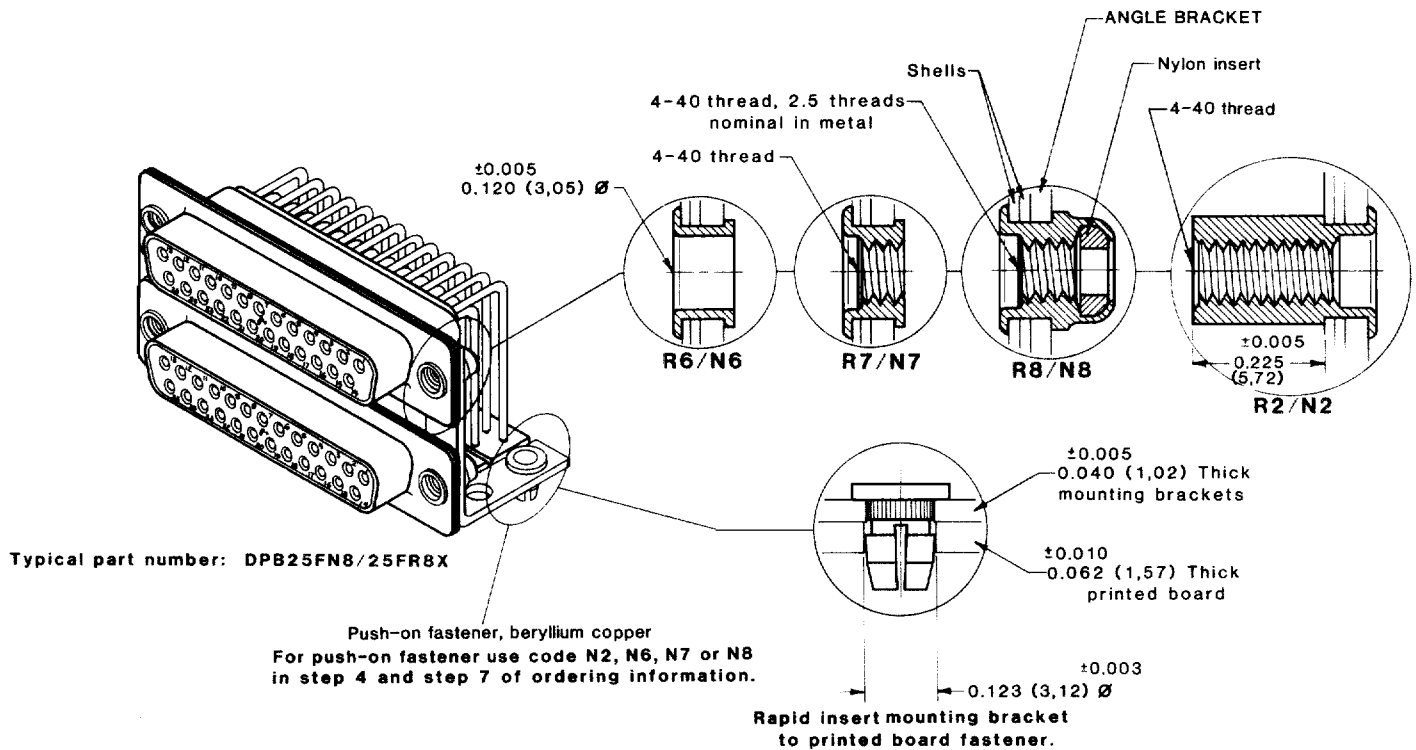
Suggest 0.039 ±0.002 (1,00) Ø hole for contact termination positions.

Suggest 0.123 ±0.003 (3,12) Ø hole for mounting connector with push-on fasteners.

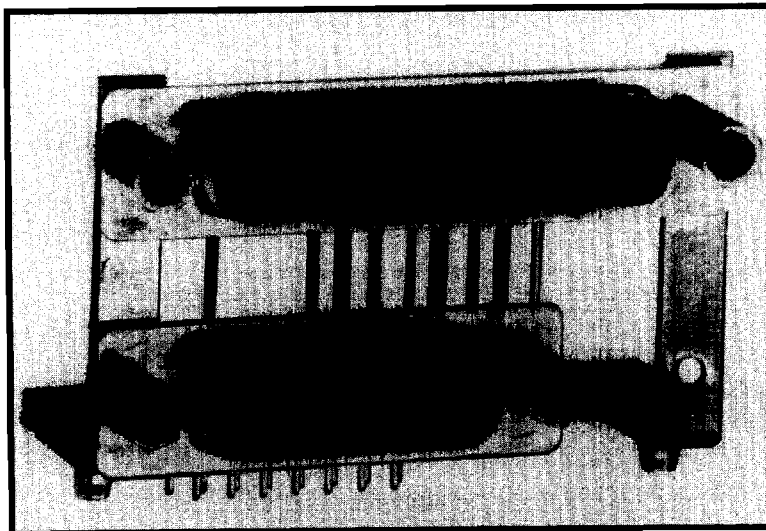
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ALL DIMENSIONS SUBJECT TO CHANGE



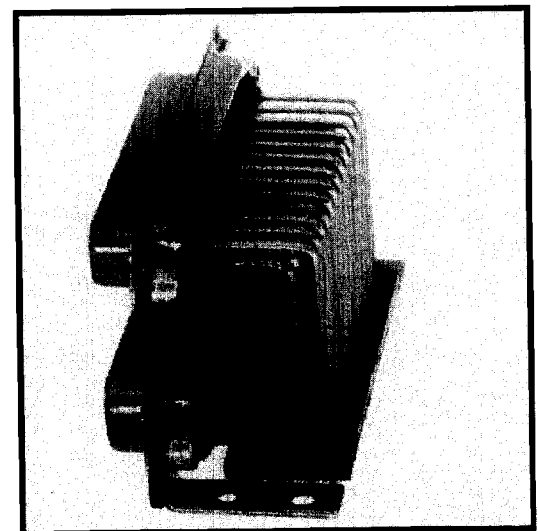
RIVETED ON MOUNTING BRACKETS AND PUSH-ON FASTENER



DIMENSIONS ARE IN INCHES (MILLIMETERS)
ALL DIMENSIONS SUBJECT TO CHANGE



DPA25FR7T/15FN7TO



DPA25FR8/25FR8X

PROFESSIONAL QUALITY PRINTED BOARD MOUNT DUAL PORT
VERTICALLY STACKED CONNECTOR ASSEMBLY
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

ORDERING INFORMATION — CODE NUMBERING SYSTEM

Specify Complete Connector By Following Steps 1 Through 9
Insert "0" When Step Is Not Used

STEP	1	2	3	4
Upper Connector	DPA	25	F	N6T
STEP 1 Basic Series DPA Series DPB Series DPC Series				
STEP 2 DP Series Connector Variants 9, 15, 25, 29, 37, 50				
STEP 3 Connector Gender M — Male F — Female				
STEP 4 Locking, Polarizing, Mounting and Push-On Fastener Systems 0 — None R2 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threaded Fixed Female Jackscrews with Cross Bar R6 — Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar R7 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar R8 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar N2 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threaded Fixed Female Jackscrews with Cross Bar and Push-on Fastener N6 — Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar with Push-on Fastener N7 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar and with Push-on Fastener N8 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar and with Push-on Fastener V3 — Lock Tab, connector front panel mounted V5 — Lock Tab, connector rear panel mounted T — Fixed Female Jackscrews T2 — Fixed Female Jackscrews T6 — Fixed Male and Female Polarized Jackscrews				

5	6	7	8	9
25	F	N6T	X	
Options are the same as for Upper Connector Steps 2, 3 and 4.			STEP 9 Special Options Consult Sales Department STEP 8 Shell Options 0 — Zinc Plated, with Dichromate Seal X — Tin Plated Z — Tin Plated and Dimpled	

STEP	1	2	3	4	5	6	7	8	9
Upper Connector	MDPA	25	F	N6T	25	F	N6T	X	
STEP 1 Basic Series MDPA Series MDPB Series MDPC Series					STEP 9 Special Options Consult Sales Department STEP 8 Shell Options 0 — Zinc Plated, with Dichromate Seal X — Tin Plated Z — Tin Plated and Dimpled				
STEP 2 MDP Series Connector Variants 9, 15, 25, 29, 37, 50					Options are the same as for Upper Connector Steps 2, 3 and 4.				
STEP 3 Connector Gender M — Male F — Female									
STEP 4 Locking, Polarizing, Mounting and Push-On Fastener Systems 0 — None R2 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threaded Fixed Female Jackscrews with Cross Bar R6 — Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar R7 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar R8 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar N2 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threaded Fixed Female Jackscrews with Cross Bar and Push-on Fastener N6 — Bracket, Mounting, 90° Metal, Swaged to Connector with 0.120 (3.05) Ø Mounting Hole with Cross Bar with Push-on Fastener N7 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar and with Push-on Fastener N8 — Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar and with Push-on Fastener V3 — Lock Tab, connector front panel mounted V5 — Lock Tab, connector rear panel mounted T — Fixed Female Jackscrews T2 — Fixed Female Jackscrews T6 — Fixed Male and Female Polarized Jackscrews									