

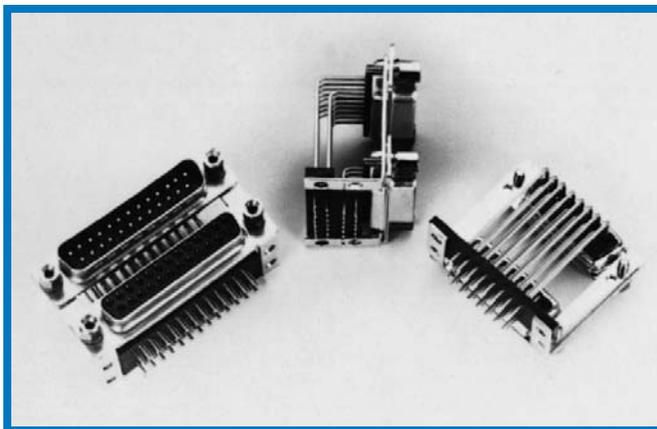
Dual Port Series

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 dimensional 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 non-polarized, 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-DTL-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. Other finishes available upon request.
Shells:	Steel or brass with tin plate; zinc plate with dichromate seal. Other materials and finishes available upon request.
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:

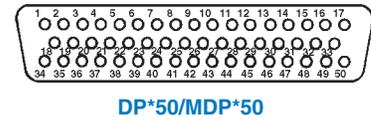
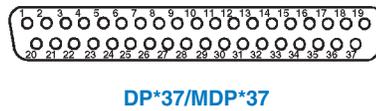
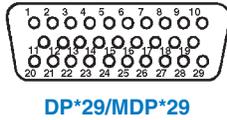
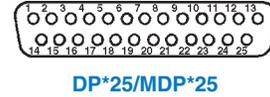
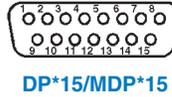
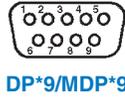
Contact Current Rating:	5 amperes.
Initial Contact Resistance:	0.008 ohms maximum.
Proof Voltage:	1,000 V r.m.s.
Insulator Resistance:	5 G ohms.
Clearance and Creepage Distance [minimum]:	0.039 inch [1.0 mm].
Working Voltage:	300 V r.m.s.

MECHANICAL CHARACTERISTICS:

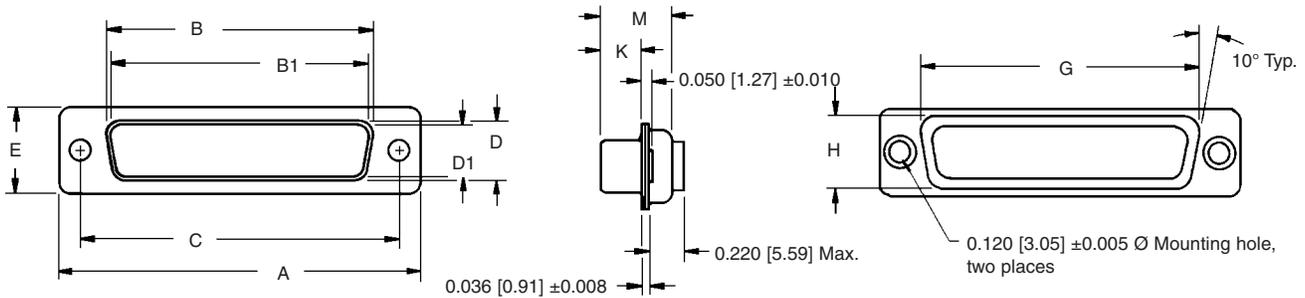
Fixed Contacts:	Size 20 contacts, male contact – 0.040 inch [1.02 mm] diameter. Female contact – rugged open entry design.
Contact Retention in Insulator:	6 lbs. [27 N].
Contact Terminations:	Printed board mount with 90° terminations supported in footprint pattern by a plastic cross bar. Termination diameter 0.028 inch [0.71 mm] and 0.024 [0.60 mm].
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 [3.05 mm] 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.

CONTACT VARIANTS

FACE VIEW OF MALE OR REAR VIEW OF FEMALE



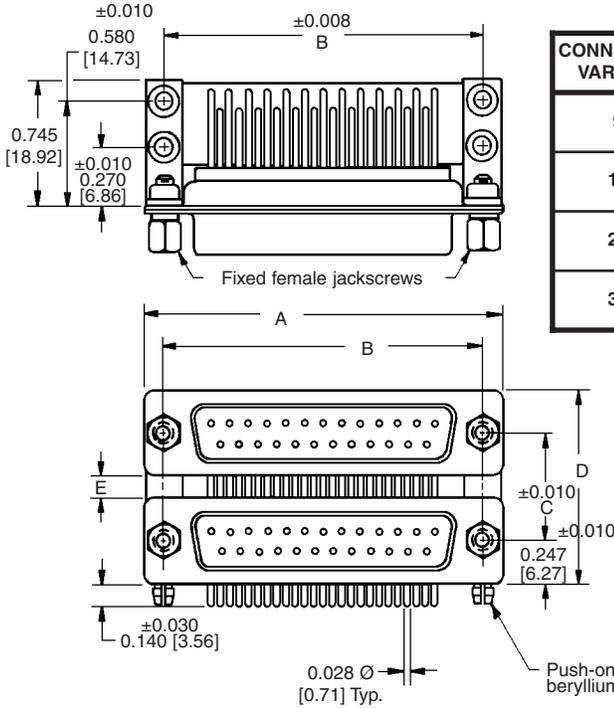
STANDARD SHELL ASSEMBLY



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]

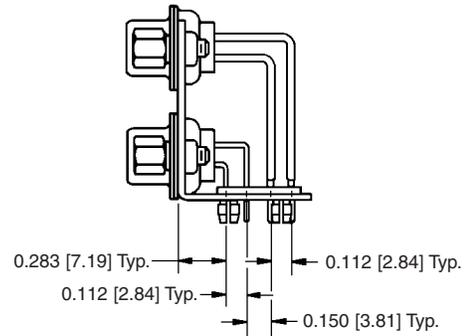
DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

**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]

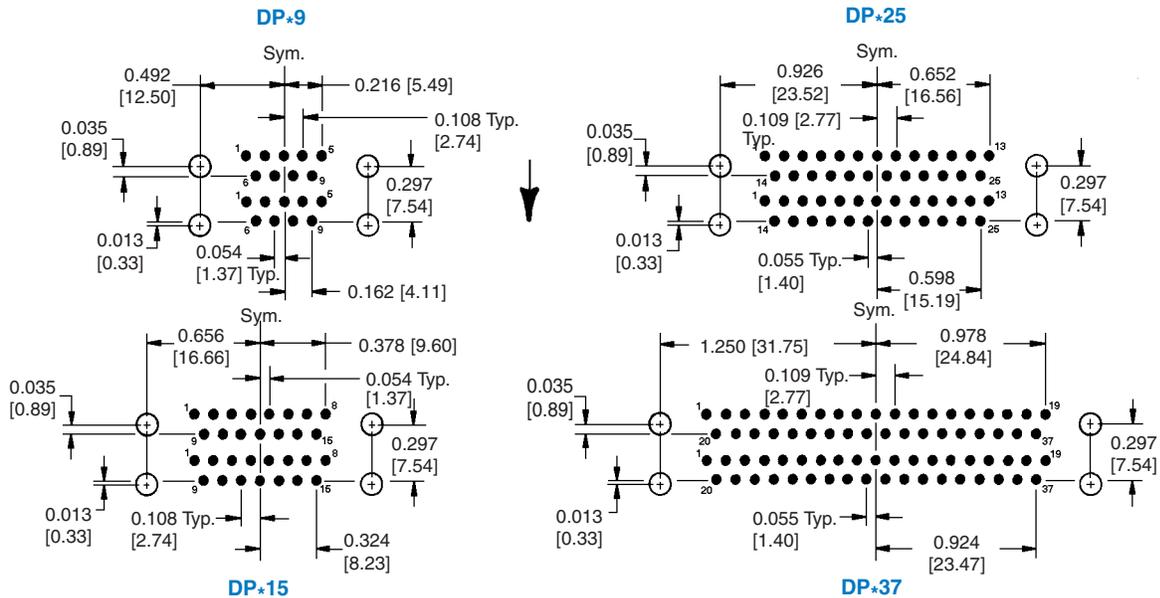
CONNECTOR DESIGNATION	C	D	E
DPA	0.625 [15.88]	1.119 [28.42]	0.131 [3.33]
DPB	0.750 [19.05]	1.244 [31.60]	0.256 [6.50]
DPC	0.900 [22.86]	1.394 [35.41]	0.406 [10.31]



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.



DIMENSIONS ARE IN INCHES [MILLIMETERS].
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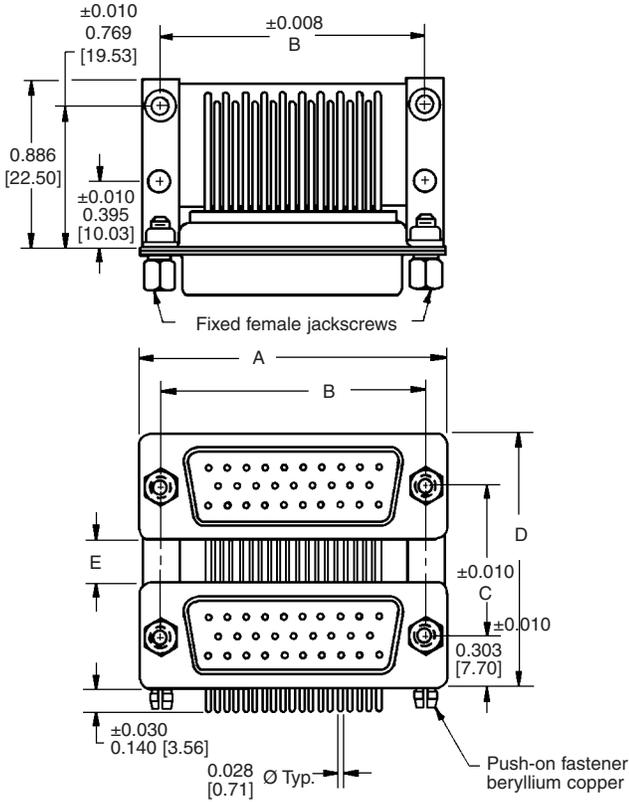
Mounting holes must move 0.020 ± 0.010 [0.51] opposite direction of arrow for use of unriveted mounting bracket with connectors.

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.

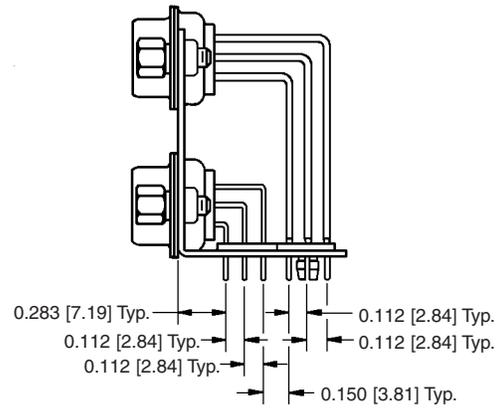
90° PRINTED BOARD MOUNT CONNECTOR

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]

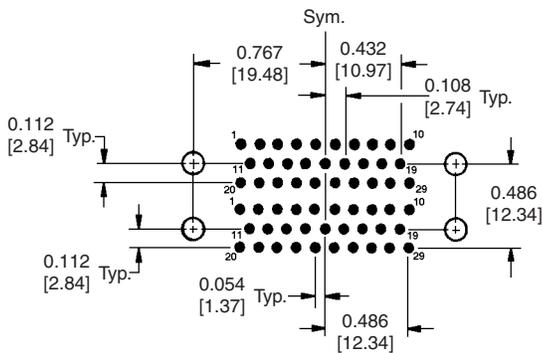
CONNECTOR DESIGNATION	C	D	E
DPB	0.750 [19.05]	1.355 [34.42]	0.145 [3.68]
DPC	0.900 [22.86]	1.505 [38.23]	0.295 [7.49]



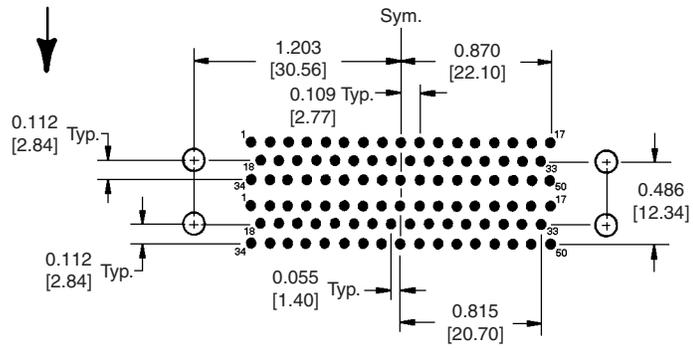
Typical Part Number: DPB29MN8T2/29MR8T2X

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.



DP*29



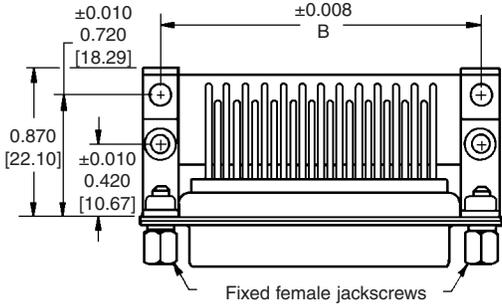
DP*50

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 unriveted mounting bracket with connectors.

**DIMENSIONS ARE IN INCHES [MILLIMETERS].
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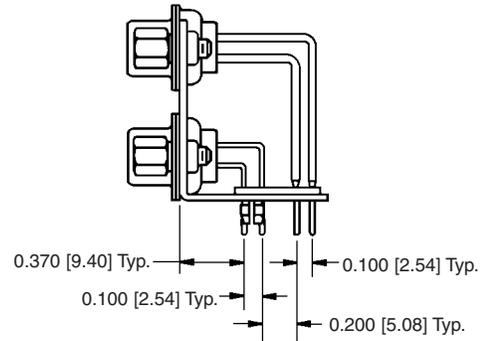
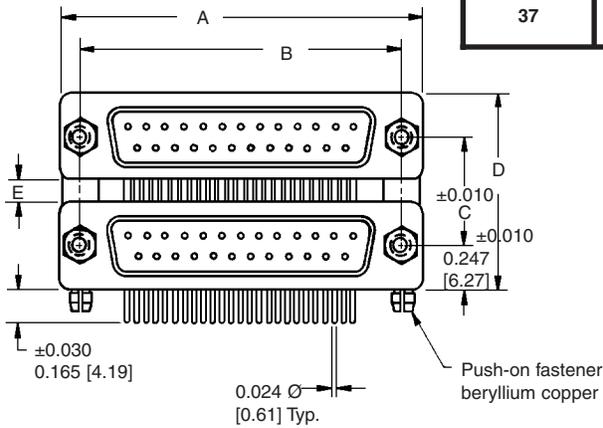
METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR

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]

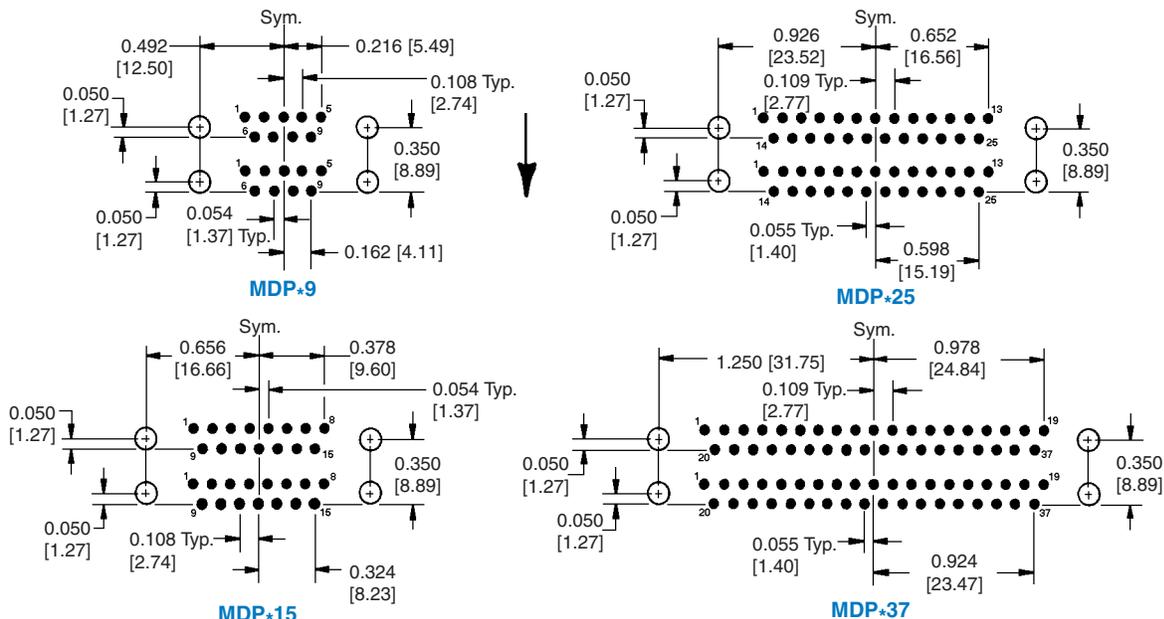
CONNECTOR DESIGNATION	C	D	E
MDPA	0.626 [15.90]	1.120 [28.45]	0.132 [3.35]
MDPB	0.752 [19.10]	1.246 [31.65]	0.258 [6.55]
MDPC	0.902 [22.90]	1.396 [35.46]	0.408 [10.36]



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.

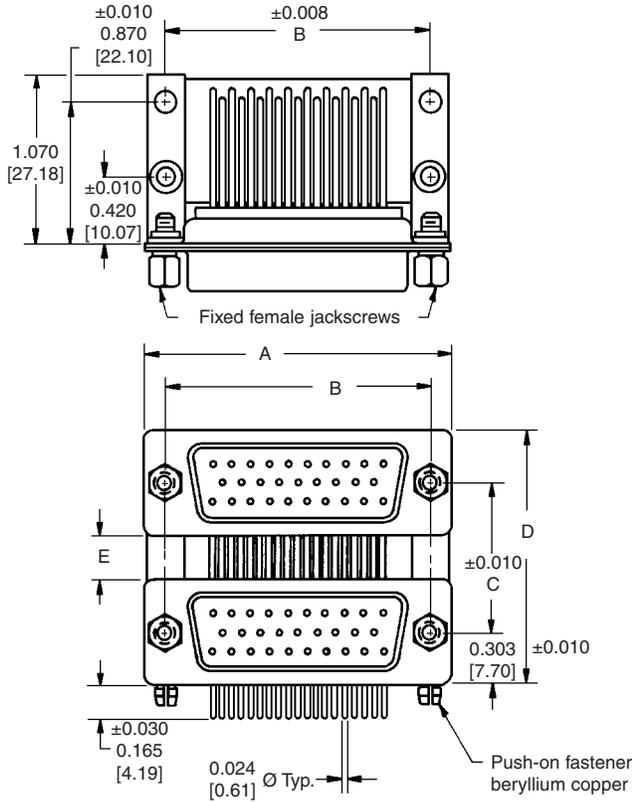


DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

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.

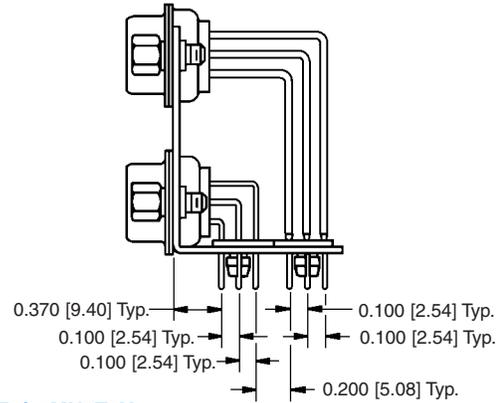
METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR

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]

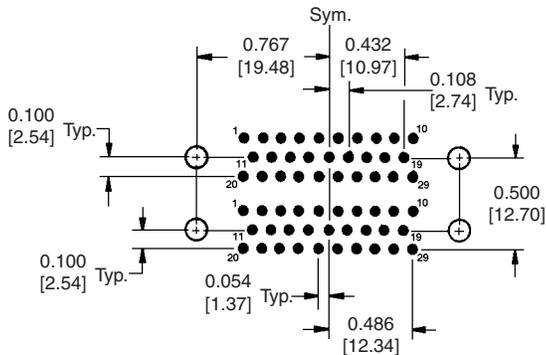
CONNECTOR DESIGNATION	C	D	E
MDPB	0.752 [19.10]	1.357 [34.47]	0.147 [3.73]
MDPC	0.902 [22.90]	1.507 [38.28]	0.297 [7.54]



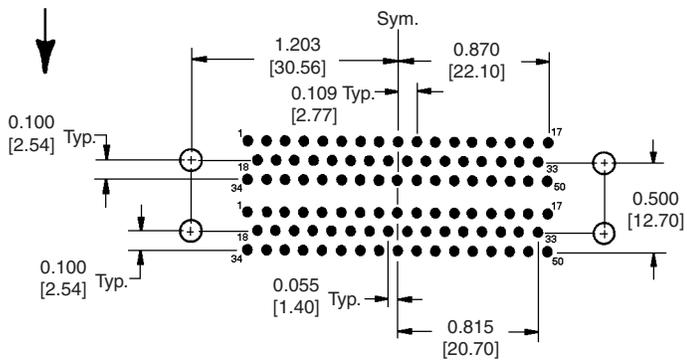
Typical Part Number: MDPB29MN7T2/29MN7T2X

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.



MDP*29

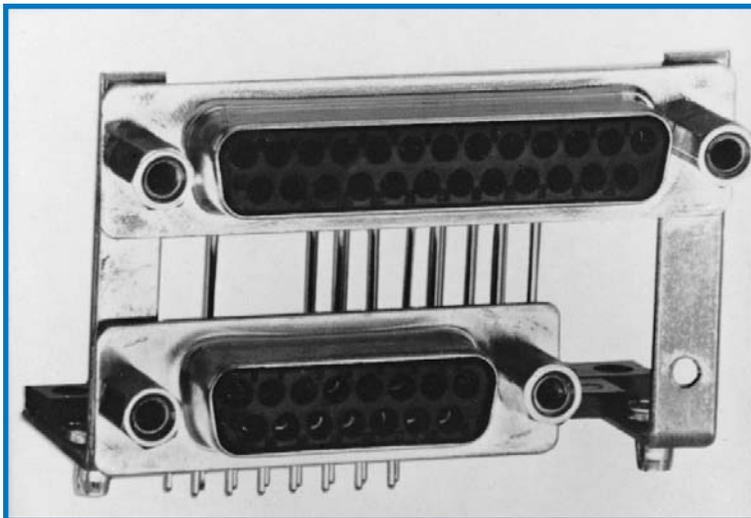
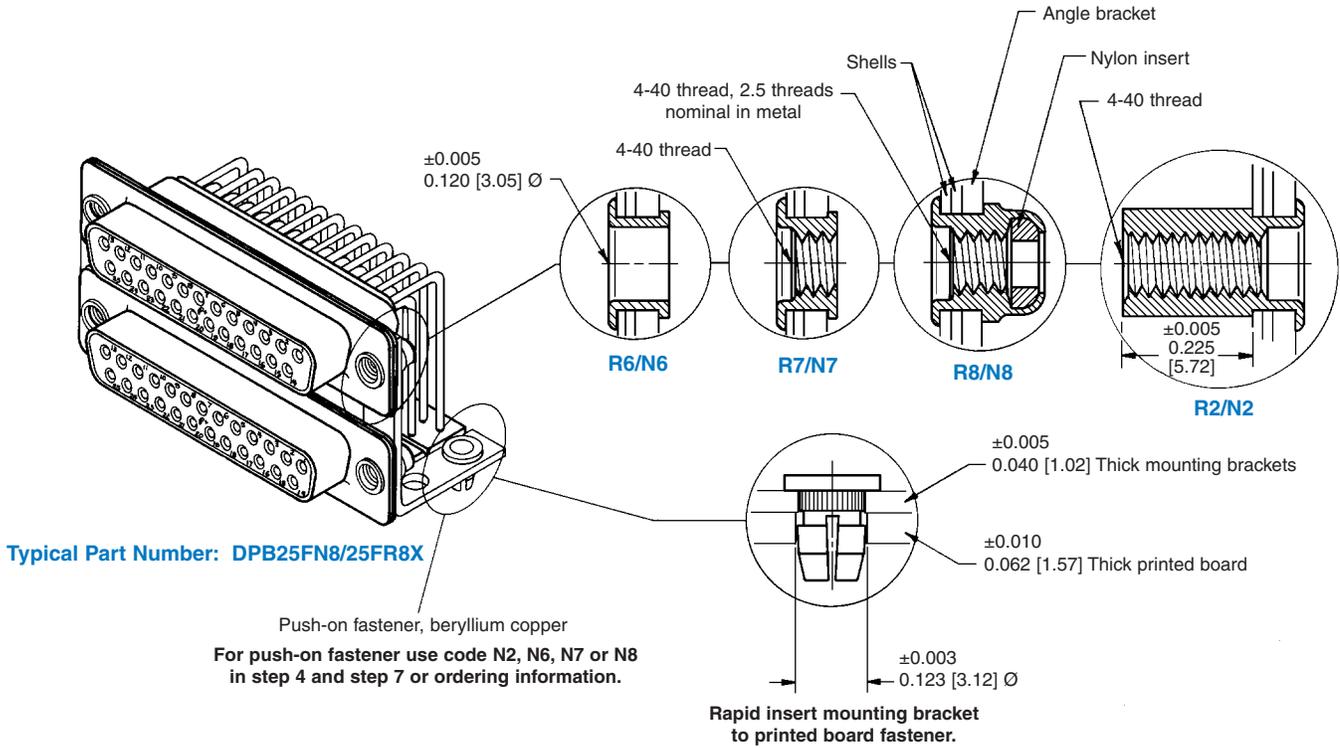


MDP*50

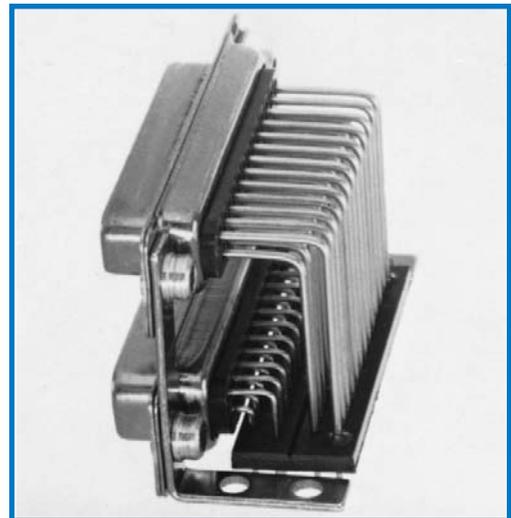
Suggest 0.039 ±0.002 [1.00] Ø hole for contact termination positions.
Suggest 0.123 ±0.003 [3.12] Ø hole for mounting connector with push-on fasteners.

**DIMENSIONS ARE IN INCHES [MILLIMETERS].
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RIVETED ON MOUNTING BRACKETS AND PUSH-ON FASTENER



DPA25FR7T/15FN7T0



DPA25FR8/25FR8X

**DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

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 - male connector only	

STEP	1	2	3	4	5	6	7	8	9
Upper Connector	MPDA	25	F	N6T	25	F	N6T	X	
STEP 1 - Basic Series MDPA Series MDPB Series MDPC Series					Options are the same as for Upper Connector Steps 2, 3 and 4.				
STEP 2 - MDP Series Connector Variants 9, 15, 25, 29, 37, 50					STEP 9 - Special Options Consult Sales Department.				
STEP 3 - Connector Gender M - Male F - Female					STEP 8 - Shell Options 0 - Zinc Plated, with Dichromate Seal. X - Tin Plated. Z - Tin Plated and Dimpled - male connector only				
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.									