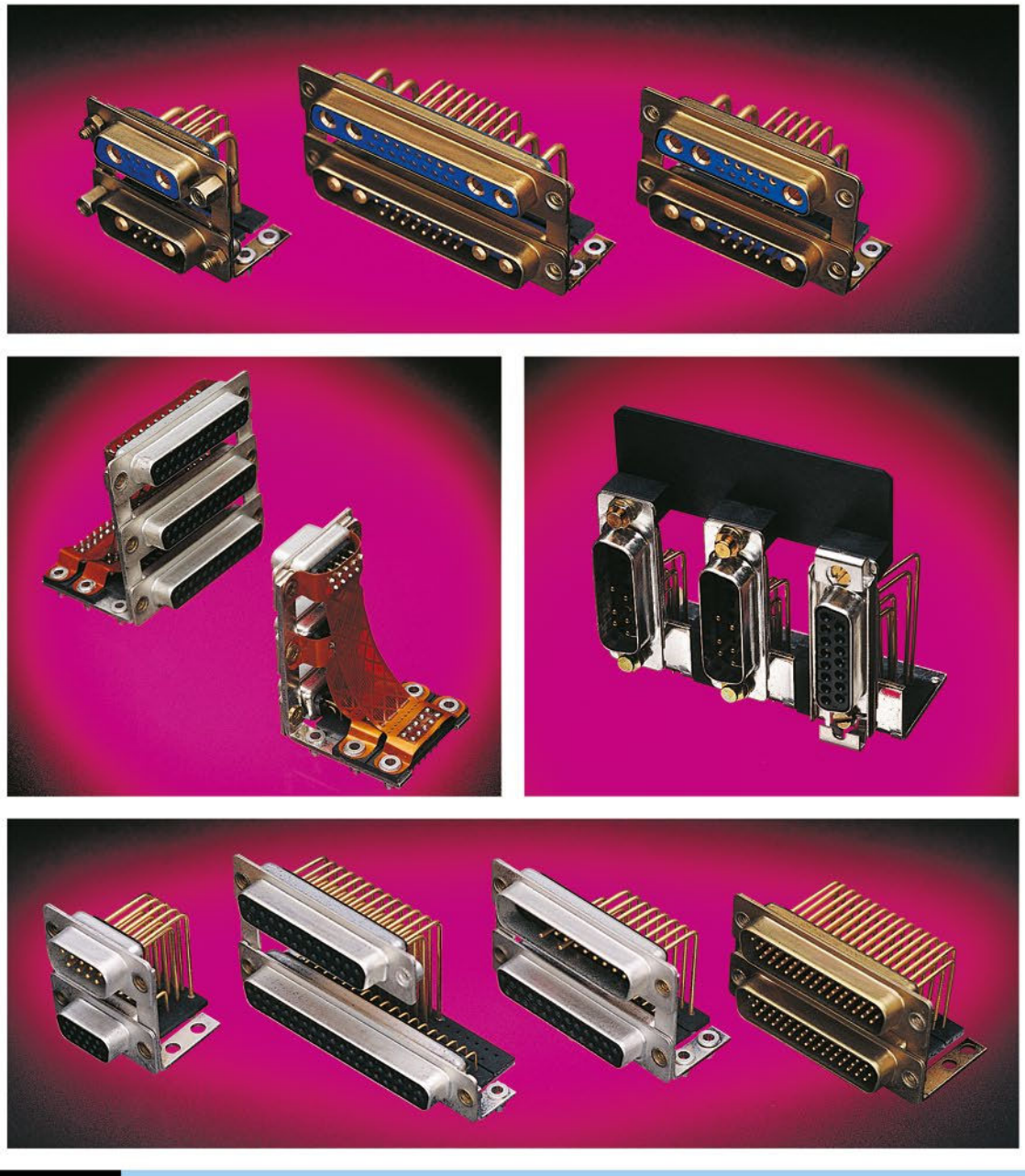
Positronic®

an **Amphenol** company

Dual Port Connectors



Catalog C-002 Rev. B3

Connector Excellence

POSITRONIC INDUSTRIES

About Us

Founded in 1966, Positronic Industries is a vertically integrated manufacturer of high quality interconnect products. Positronic has earned the worldwide reputation as a service oriented, quick-reaction, top quality connector supplier. We are committed to maintaining this reputation by continuous implementation of our **Complete Capability** concept.

Complete Capability

Machining

Design & Development

- Designs new connectors and modifies existing connectors to meet industry requirements
- Continuously conducts marketing studies to identify industry needs for new products
- Ongoing interest in unique connector designs

Tooling

- Tooling support for all manufacturing areas within company
- Provides 80% of new tooling, punch press dies, molds, jigs and fixtures used at Positronic factory locations worldwide

Machining

- Automatic screw machines produce finely crafted contacts and hardware for connector bodies
- Trained technicians operate machines from Tornos, Bechler and Brown & Sharpe

Molding

Molding

- Molds all plastic connector components such as insulators, hoods, angle brackets and more
- Overmold capability available

Plating

- Applies gold and other metal finishes to connector components to any required thickness
- Plating conforms to all military specifications

Quality Assurance Lab

- Quality assurance system certified to ISO 9001
- Maintains aggressive TQM program
- Able to test to IEC, EIA, UL, MIL-DTL-24308, MIL-DTL-28748, MIL-C-39029 and MIL-C-85049 requirements

Finished Stock Inventory

Finished Stock Inventory

- Each main factory location maintains a large inventory of connector components and accessories
- Same day shipments available on many standard connector products
- Stocking agreements available for qualified customers

Worldwide Sales & Service

- Responsive attitude toward customer needs
- Fully trained sales staff located worldwide

Products described within this catalog may be protected by one or more of the following US. patents:

#4,721,472 #4,900,261 #5,255,580
#5,329,697 #6,260,268 #6,835,079

Patented in Canada, 1992 Other Patents Pending

Unless otherwise specified, dimensional tolerances are:

1] ±0.001 inches [0.03 mm] for male contact mating diameters.
2] ±0.003 inches [0.08 mm] for contact termination diameters.
3] ±0.005 inches [0.13 mm] for all other diameters.
4] ±0.015 inches [0.38 mm] for all other dimensions.

Positronic Industries' FEDERAL SUPPLY CODE [Cage Code] FOR MANUFACTURERS is 28198

Positronic
connectpositronic.com

TABLE OF CONTENTS

D P / M D P S E R I E S

D D S E R I E S

X D S E R I E S

C B D P S E R I E S

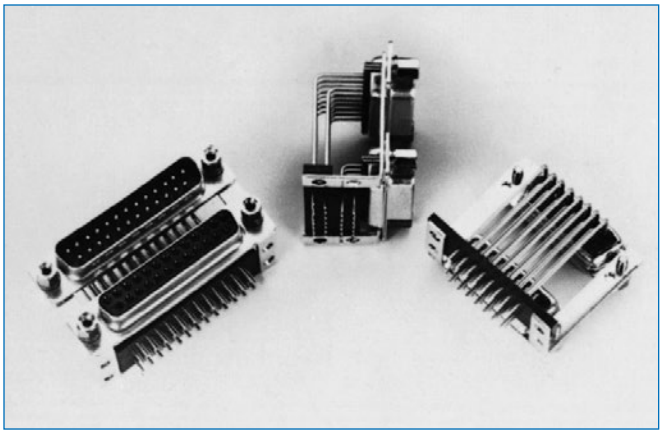
DP MDP Series

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, 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 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:	Glass filled polyester per ASTM D5927, 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. Other materials and finishes available upon request.
Mounting Spacers and Brackets:	Steel or brass with tin plate; zinc plate.
Push-On Fasteners:	Beryllium copper with tin plate.
Jackscrew Systems:	Steel with zinc plate, 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 polyester 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:

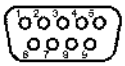
Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	10 days.

PROFESSIONAL QUALITY PRINTED BOARD MOUNT DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY

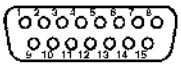
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

CONTACT VARIANTS

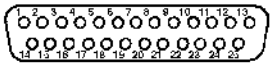
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



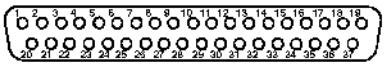
DP*9/MDP*9



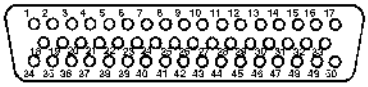
DP*15/MDP*15



DP*25/MDP*25

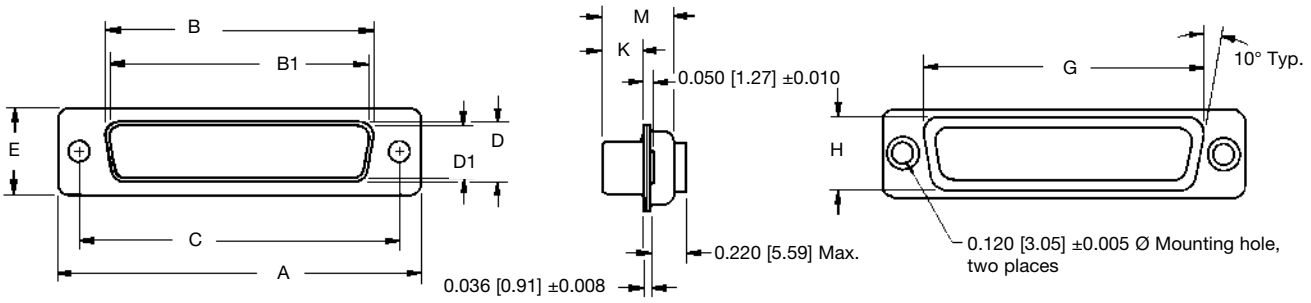


DP*37/MDP*37



DP*50/MDP*50

STANDARD SHELL ASSEMBLY

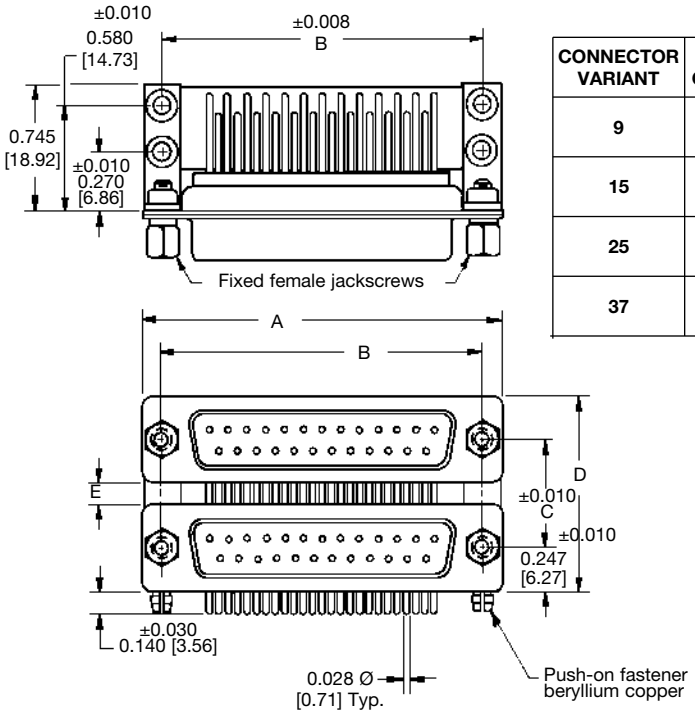


CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
9 M	1.213 [30.81]		0.666 [16.92]	0.984 [24.99]		0.329 [8.36]	0.494 [12.55]	0.759 [19.28]	0.422 [10.72]	0.233 [5.92]	0.422 [10.72]
9 F	1.213 [30.81]	0.643 [16.33]		0.984 [24.99]	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]
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.

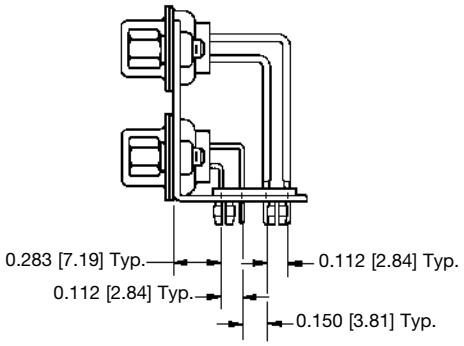
90° PRINTED BOARD MOUNT CONNECTOR

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]

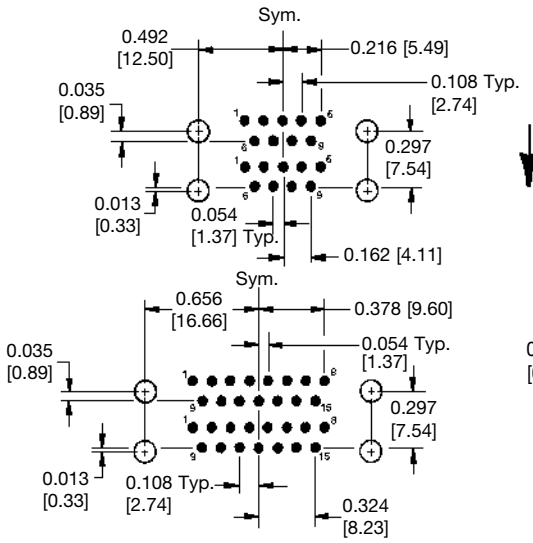


Typical Part Number: DPA25MN8T2/25MN8T2X

CONTACT HOLE PATTERN

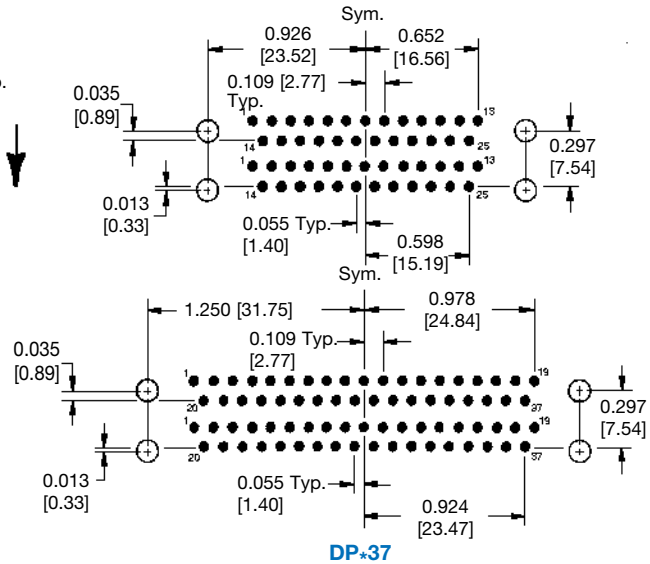
Hole identification shown is for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.

DP*9



DP*15

DP*25



DP*37

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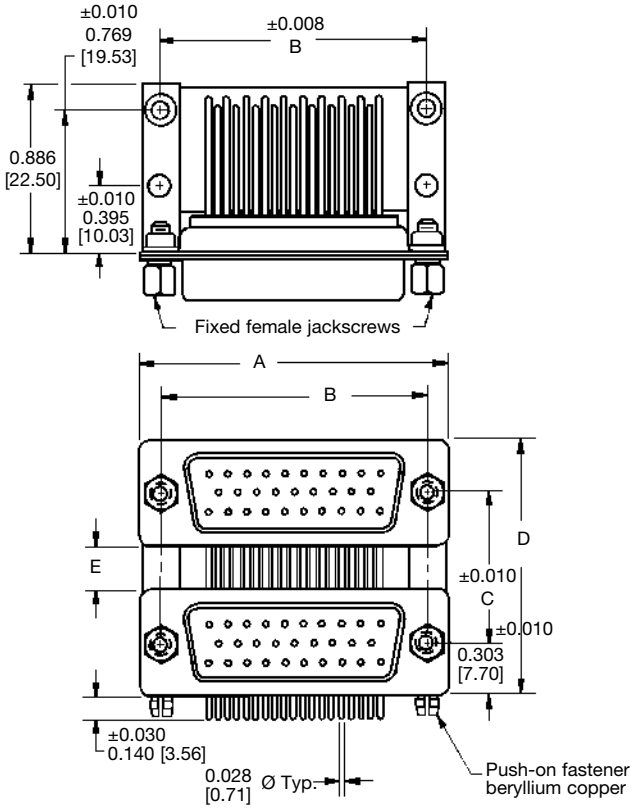
Mounting holes must move 0.020 ±0.010 [0.51] opposite direction of arrow for use of unriveted mounting bracket with connectors.

Suggest 0.045 ±0.002 [1.14] Ø hole for contact termination positions.
Suggest 0.123 ±0.003 [3.12] Ø hole for mounting connector with push-on fasteners.

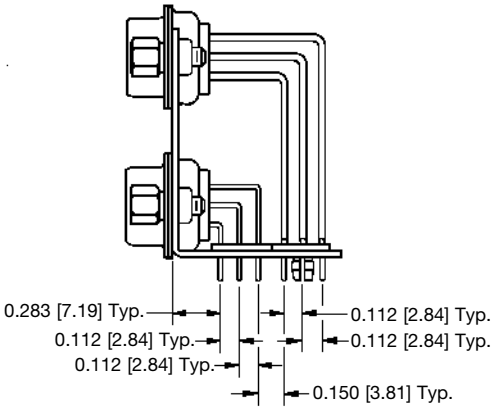
90° PRINTED BOARD MOUNT CONNECTOR

6 ROW CONNECTOR UNIT, 0.283 [7.19] CONTACT EXTENSION



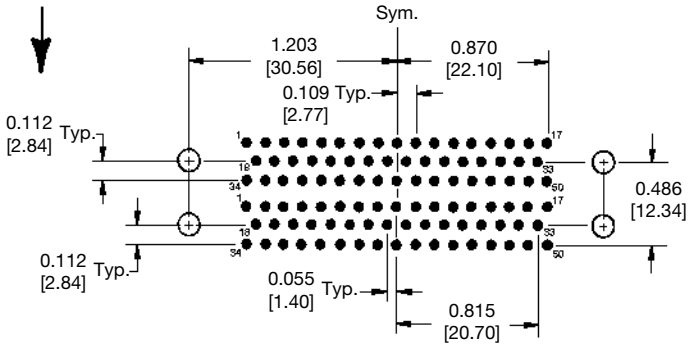
CONNECTOR VARIANT	NO. OF CONTACTS	A	B
50	100	2.635 [66.93]	2.406 [61.11]

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]



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*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.

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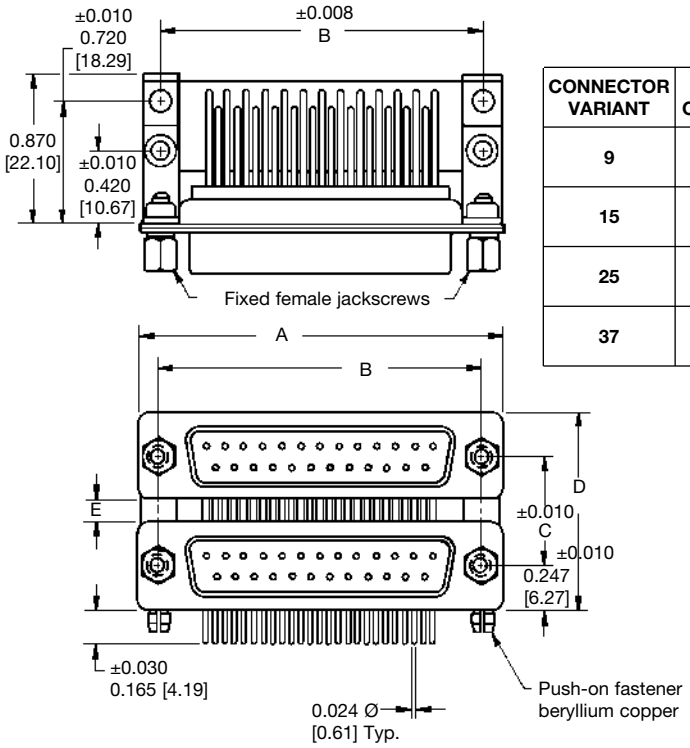
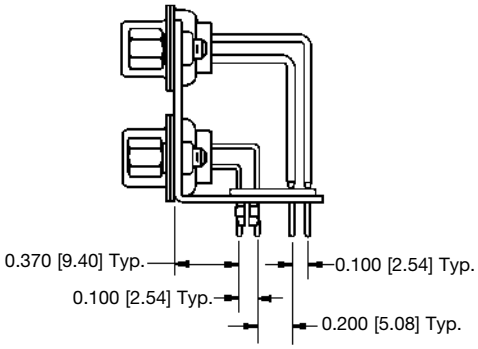
METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR

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]

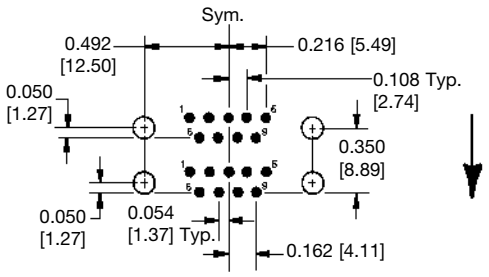
CONNECTOR DESIGNATION	C	D	E
MDPA	0.626 [15.90]	1.120 [28.45]	0.132 [3.35]
MDPB	0.752 [19.10]	1.246 [31.65]	0.258 [6.55]
MDPC	0.902 [22.90]	1.396 [35.46]	0.408 [10.36]



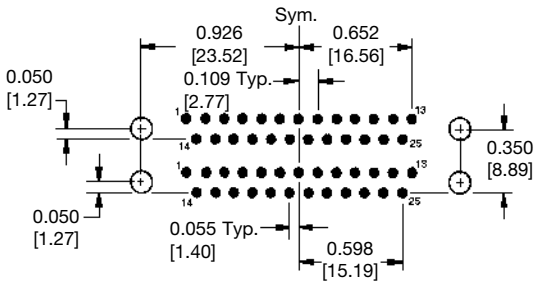
Typical Part Number:
MDPA25MR8T2/25MN8T2X

METRIC SYSTEM CONTACT HOLE PATTERN

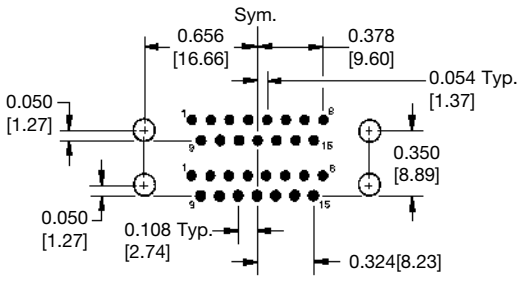
Hole identification shown is for male connector, use mirror image for female connector.
Mount connector with mating face positioned to follow direction of arrow.



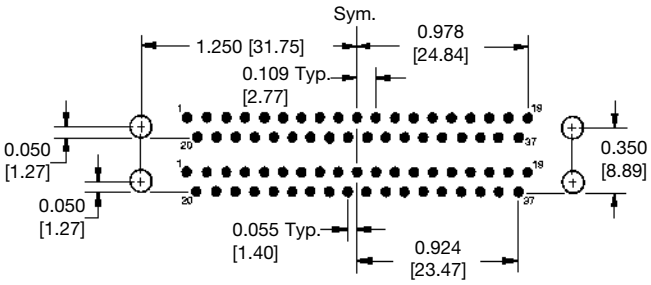
MDP★9



MDP★25



MDP★15



MDP★37

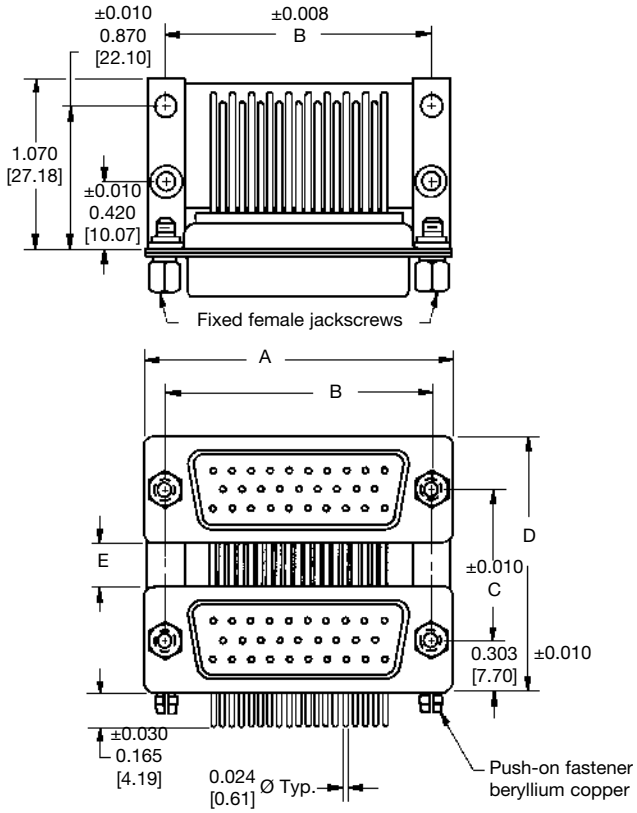
DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

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.

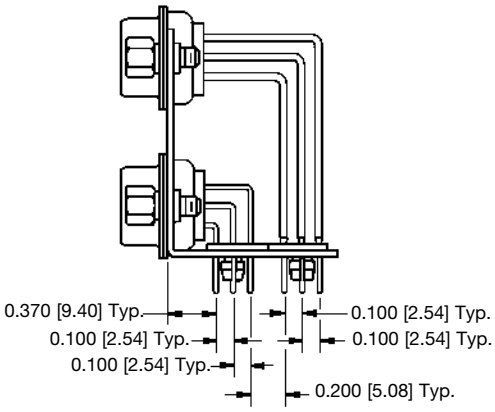
METRIC SYSTEM 90° PRINTED BOARD MOUNT CONNECTOR

6 ROW CONNECTOR UNIT, 0.370 [9.40] CONTACT EXTENSION



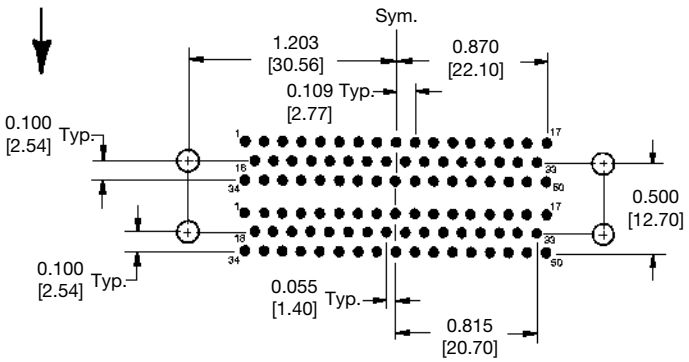
CONNECTOR VARIANT	NO. OF CONTACTS	A	B
50	100	2.635 [66.93]	2.406 [61.11]

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]



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.



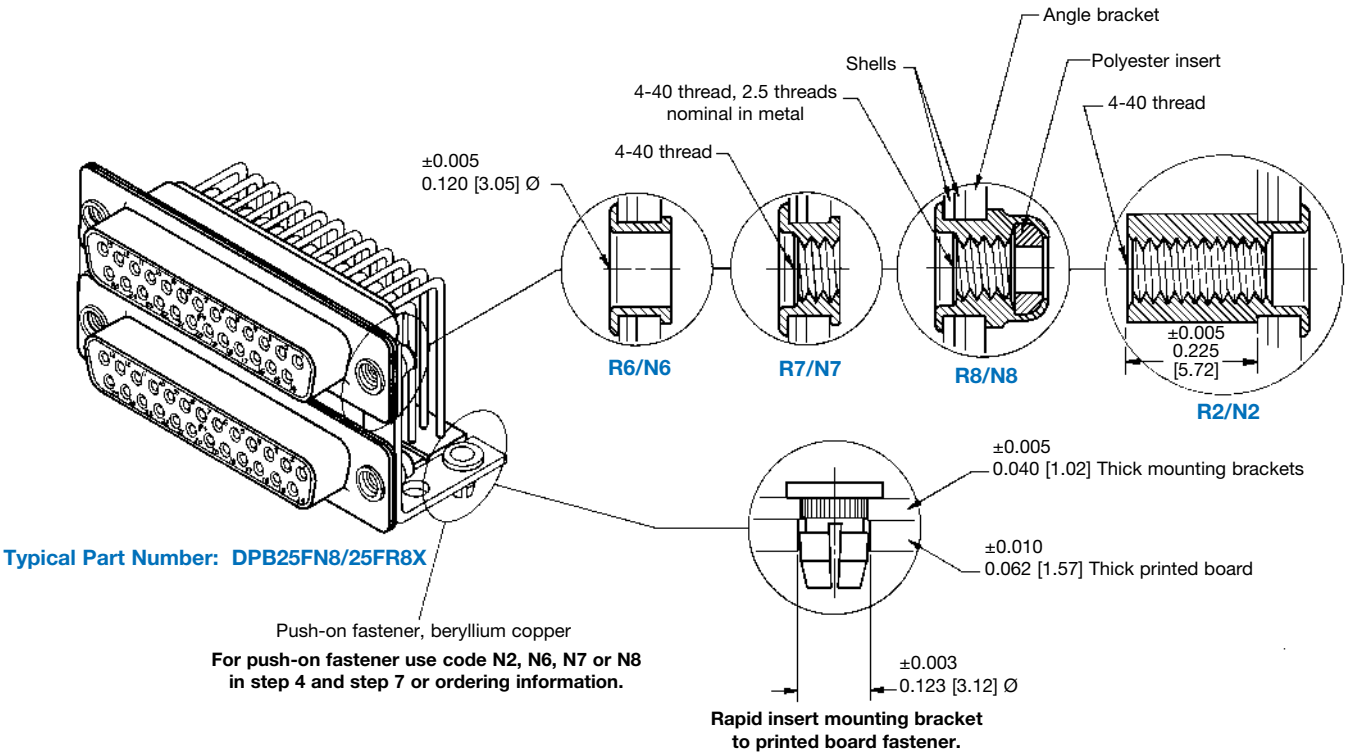
MDP*50

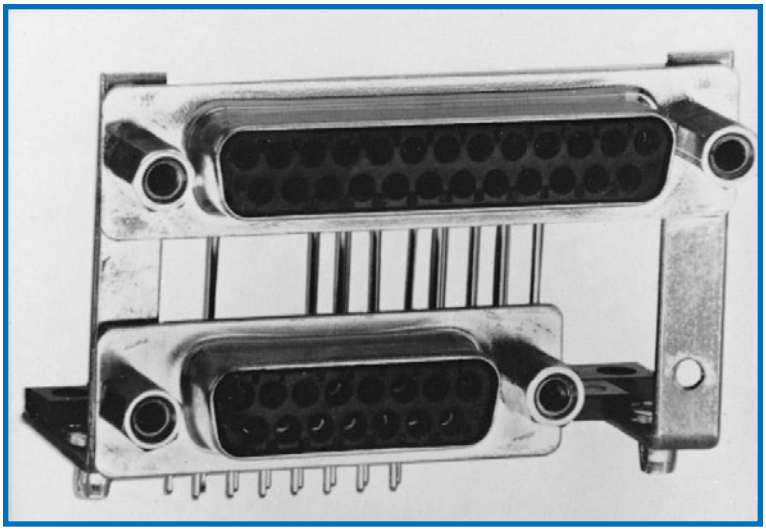
Suggest 0.039 ±0.002 [1.00] Ø hole for contact termination positions.

Suggest 0.123 ±0.003 [3.12] Ø hole for mounting connector with push-on fasteners.

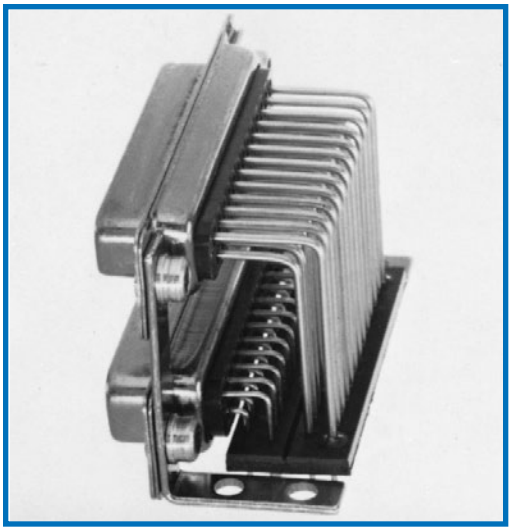
**DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

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	/	5	6	7	8	—	9	
Upper Connector	DPA	25	F	N6T		25	F	N6T	X			Lower Connector

Options are the same as for Upper Connector Steps 2, 3 and 4.

STEP 1 - Basic Series
DPA Series
DPB Series
DPC Series

STEP 2 - DP Series Connector Variants
9, 15, 25, 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.

STEP 8 - Shell Options
0 - Zinc Plated.
X - Tin Plated.
Z - Tin Plated and Dimpled - male connector only.

STEP 9 - Special Options
Consult Sales Department.

STEP	1	2	3	4	/	5	6	7	8	—	9	
Upper Connector	MPDA	25	F	N6T		25	F	N6T	X			Lower Connector

Options are the same as for Upper Connector Steps 2, 3 and 4.

STEP 1 - Basic Series
MDPA Series
MDPB Series
MDPC Series

STEP 2 - MDP Series Connector Variants
9, 15, 25, 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.

STEP 8 - Shell Options
0 - Zinc Plated.
X - Tin Plated.
Z - Tin Plated and Dimpled - male connector only

STEP 9 - Special Options
Consult Sales Department.

High Density Dual Port Series

PROFESSIONAL QUALITY PRINTED BOARD MOUNT HIGH DENSITY DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY

FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

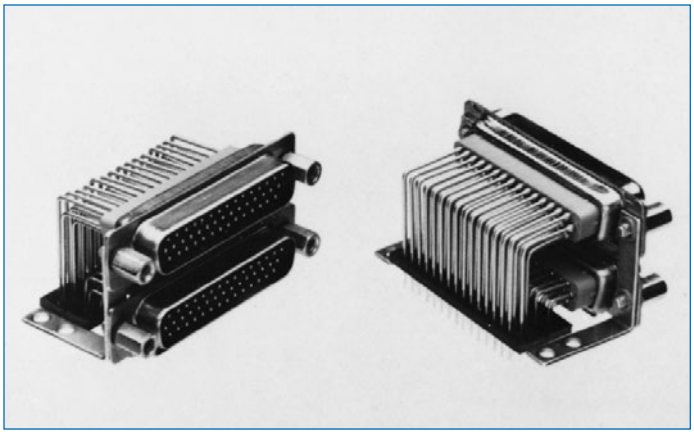
Size 22 Contacts, Two Connectors Vertically Stacked and Assembled As a Single Connector Unit

Professional Quality Connectors

U.L. Recognized
File #E49351

CSA Recognized
File #LR54219

Telecommunication
U.L. File #14098



High Density Dual Port Series connectors utilize two high density connectors vertically stacked and assembled into a single connector unit, which permits saving of panel and printed board space, and decreases final assembly costs.

High Density Dual Port Series connectors are professional quality connectors recommended for use in sheltered, non-corrosive indoor and outdoor environments having normal ventilation.

Connector contact variants are 15, 26, 44 and 62. Connector genders can be mixed, i.e., one male and one female connector within one High Density Dual Port assembly. The two connectors may be spaced apart to three standard dimensional spacings. The connector may also be partially populated with contacts which are installed in the connector body to customer selected contact positions.

Mounting angle brackets can be ordered riveted to the connector by specifying R2, R6, R7 or R8 options. 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.

High Density Dual Port Series connectors comply with the dimensional requirements of MIL-DTL-24308.

HIGH DENSITY DUAL PORT SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled polyester per ASTM D5927, UL 94V-0, black color.
Contacts:	Male and female contacts – precision machined high tensile phosphor bronze.
Contact Plating:	Gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel with tin plate, or zinc plate. Other materials and finishes available upon request.
Mounting Spacers and Brackets:	Steel or brass with tin plate, or zinc.
Push-On Fasteners:	Beryllium copper with tin plate.
Jackscrew Systems:	Steel with zinc plate, or clear zinc plate.
Vibration Lock Systems:	Lock tabs, steel with nickel plate.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	3 amperes.
Initial Contact Resistance:	0.010 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:

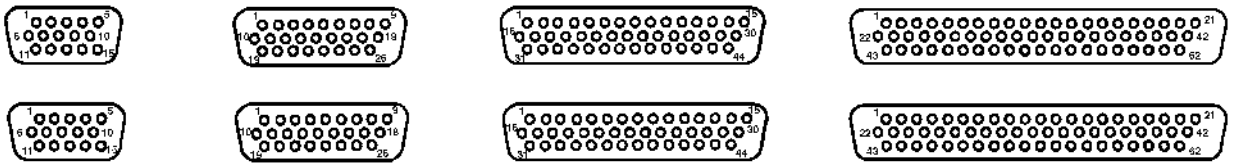
Fixed Contacts:	Size 22 contact, male contact – 0.030 inch [0.76 mm] diameter. Female contact – rugged open entry design.
Contact Retention in Insulator:	7 lbs. [31 N].
Contact Terminations:	Printed board mount with 90° terminations supported in footprint pattern by a plastic cross bar. Termination diameter 0.020 inch [0.51 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 Polyester 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.

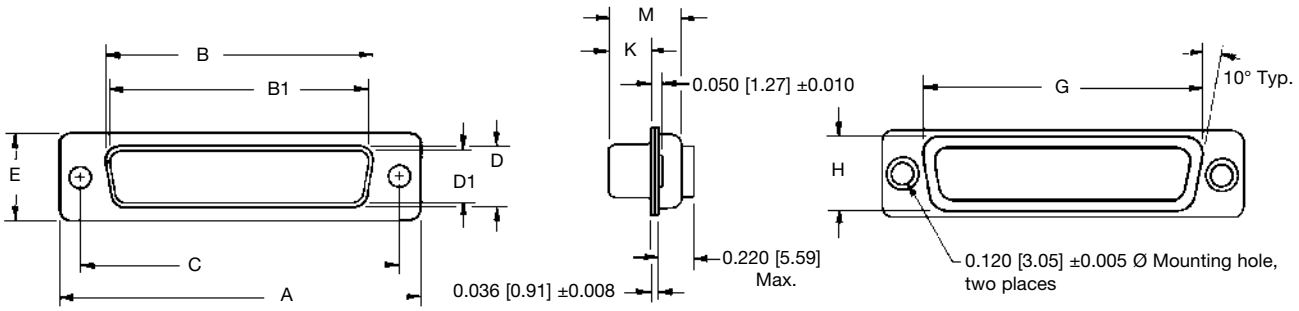
CONTACT VARIANTS

FACE VIEW OF MALE OR REAR VIEW OF FEMALE



DD*15/15 DD*26/26 DD*44/44 DD*62/62

STANDARD SHELL ASSEMBLY

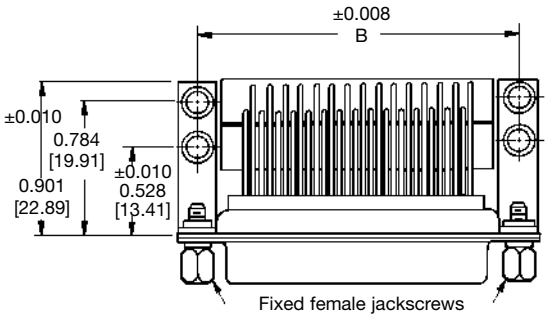


CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
15M/15M	1.213 [30.81]		0.666 [16.92]	0.984 [24.99]		0.329 [8.36]	0.494 [12.55]	0.759 [19.28]	0.422 [10.72]	0.233 [5.92]	0.422 [10.72]
15F/15F	1.213 [30.81]	0.643 [16.33]		0.984 [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]
26M/26M	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]
26F/26F	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]
44M/44M	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]
44F/44F	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]
62M/62M	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]
62F/62F	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]

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

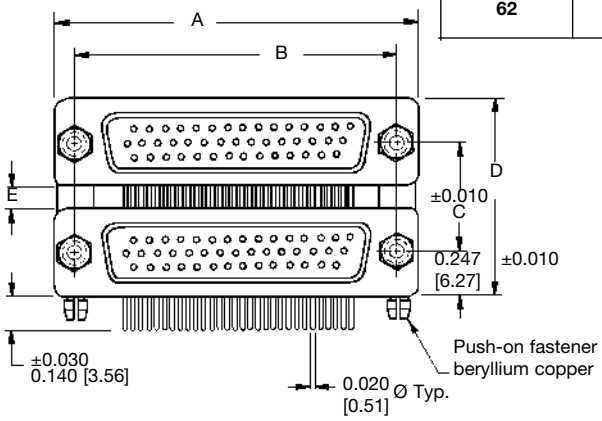
90° PRINTED BOARD MOUNT CONNECTOR

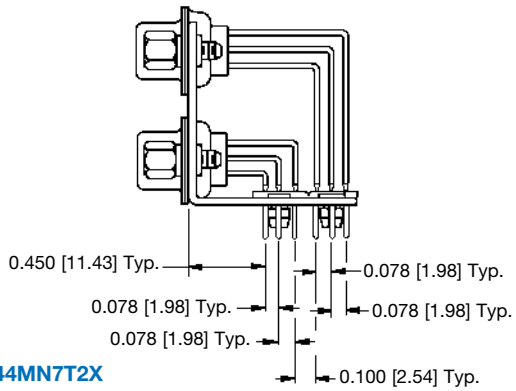
6 ROW CONNECTOR UNIT, 0.450 [11.43] CONTACT EXTENSION



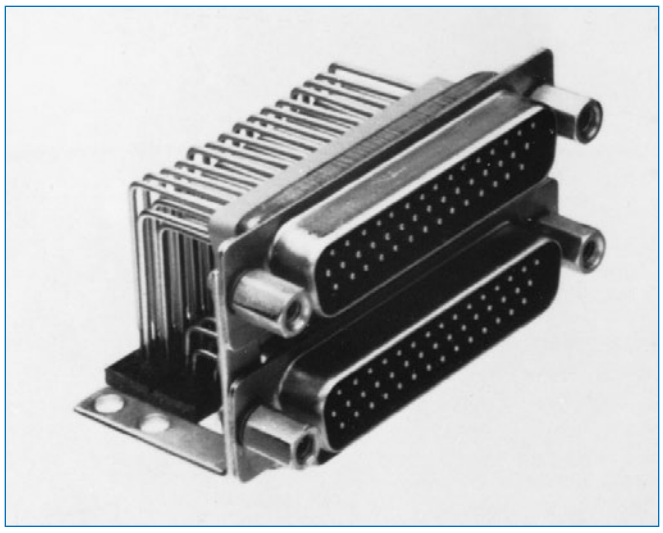
CONNECTOR VARIANT	NO. OF CONTACTS	A	B
15	30	1.213 [30.81]	0.984 [24.99]
26	52	1.541 [39.14]	1.312 [33.32]
44	88	2.088 [53.04]	1.852 [47.04]
62	124	2.729 [69.32]	2.500 [63.50]

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





Typical Part Number: DDA44MN7T2/44MN7T2X



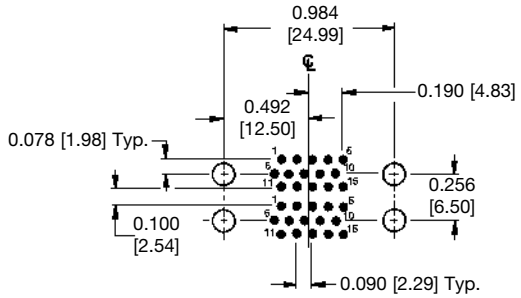
DDA44MR7T/44MR7T0

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

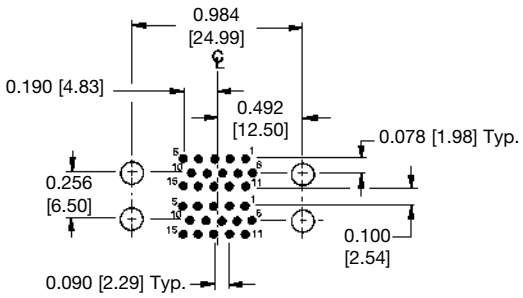
PRINTED BOARD CONTACT HOLE PATTERN

Mount connector with mating face positioned to follow direction of arrows.

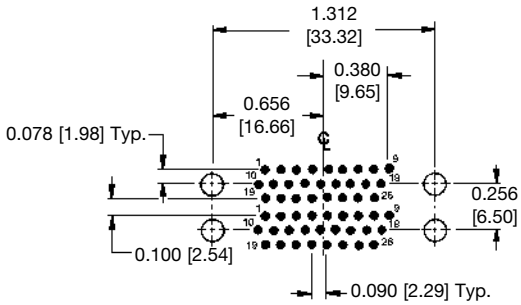
DD⋆15 MALE OVER MALE CONNECTOR



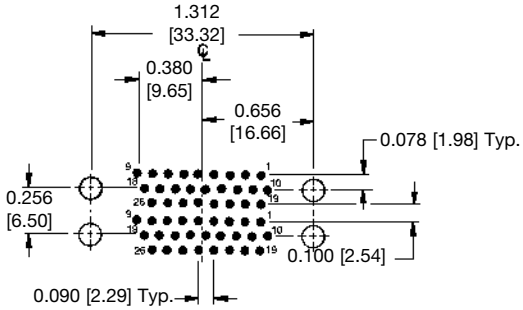
DD⋆15 FEMALE OVER FEMALE CONNECTOR



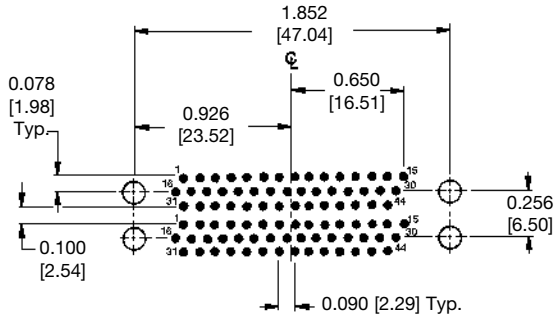
DD⋆26 MALE OVER MALE CONNECTOR



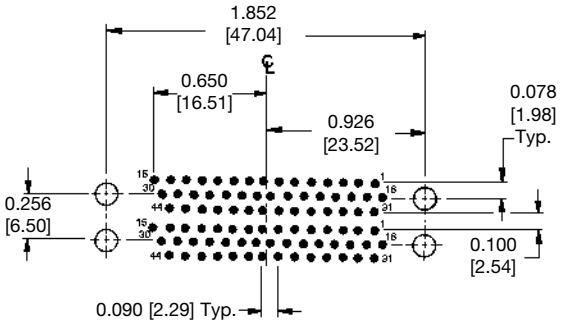
DD⋆26 FEMALE OVER FEMALE CONNECTOR



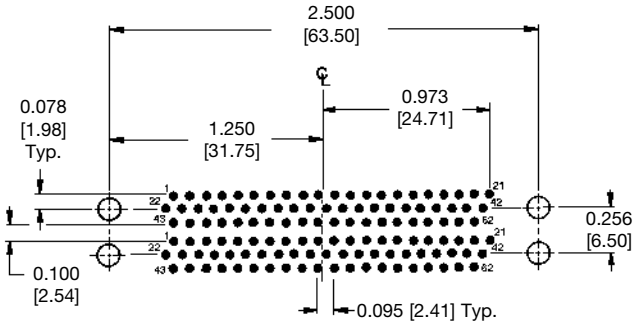
DD⋆44 MALE OVER MALE CONNECTOR



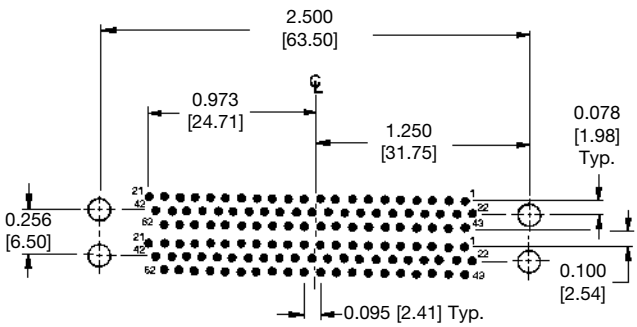
DD⋆44 FEMALE OVER FEMALE CONNECTOR



DD⋆62 MALE OVER MALE CONNECTOR



DD⋆62 FEMALE OVER FEMALE CONNECTOR



Mounting hole must move 0.020 [0.51] opposite direction of the arrow for use of unriveted mounting brackets with connectors.

Suggest 0.035 ±0.002 [0.89] Ø hole for contact termination positions.
Suggest 0.123 ±0.003 [3.12] Ø hole for mounting connector with push-on fasteners.
The ⋆ signifies either a DDA, DDB or DDC connector type.

**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	/	5	6	7	8	—	9
Upper Connector	DDA	44	F	N6T		44	F	N6T	X		

Lower Connector

STEP 1 - Basic Series
DDA Series
DDB Series
DDC Series

STEP 2 - DD Series Connector Variants
15, 26, 44, 62

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 Thread 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 Thread 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.

Options are the same as for Upper Connector Steps 2, 3 and 4.

STEP 8 - Shell Options
0 - Zinc Plated.
X - Tin Plated.
Z - Tin Plated and Dimpled - male connector only

STEP 9 - Special Options
Consult Sales Department.

Mixed Density Dual Port Series

PROFESSIONAL QUALITY PRINTED BOARD MOUNT MIXED DENSITY DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY

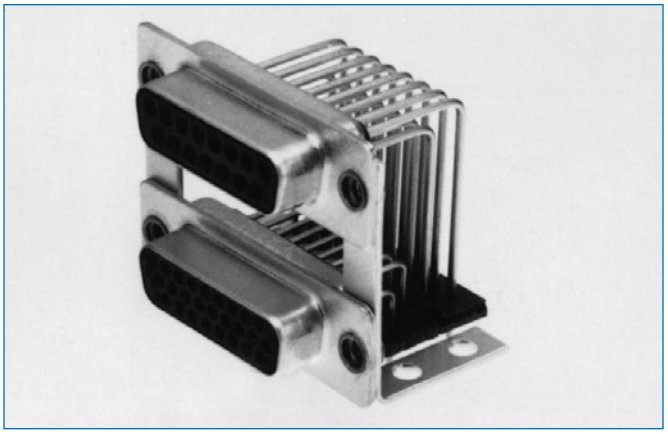
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Size 20 and 22 Contacts
Two Connectors Vertically Stacked and Assembled As a Single Connector Unit
Professional Quality Connectors

U.L. Recognized
File #E49351

CSA Recognized
File #LR54219

Telecommunication
U.L. File #14098



Mixed Density Dual Port Series connectors utilize one standard density connector and one high density connector, vertically stacked and assembled into a single connector unit. This single connector unit permits saving of panel and printed board space and decreases final assembly costs.

Mixed Density Dual Port Series connectors are professional quality connectors recommended for use in sheltered, non-corrosive indoor and outdoor environments having normal ventilation.

Connector contact variants are the normal density over a high density connector: 9 over 15, 15 over 26, 25 over 44 and 37 over 62. Connector genders can be mixed, i.e., one male and one female connector within one Mixed Density Dual Port assembly. The two connectors may be spaced apart to three standard dimensional spacings. The connector may also be partially populated with contacts which are installed in the connector body to customer selected contact positions.

Mounting angle brackets can be ordered riveted to the connector by specifying R2, R6, R7 or R8 options. 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.

Mixed Density Dual Port Series connectors comply with the dimensional requirements of MIL-DTL-24308.

MIXED DENSITY DUAL PORT SERIES TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled polyester per ASTM D5927, UL 94V-0, black color.
Contacts:	Male contacts – precision machined copper alloy. Female contacts – precision machined high tensile phosphor bronze.
Contact Plating:	Gold flash over nickel plate. Other finishes available upon request.
Shells:	Steel with tin plate, or zinc plate. Other materials and finishes available upon request.
Mounting Spacers and Brackets:	Steel or brass with tin plate, or zinc.
Push-On Fasteners:	Beryllium copper with tin plate.
Jackscrew Systems:	Steel with zinc plate, or clear zinc plate.
Vibration Lock Systems:	Lock tabs, steel with nickel plate.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	5 amperes for standard density connectors. 3 amperes for high density connectors.
Initial Contact Resistance:	0.010 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:

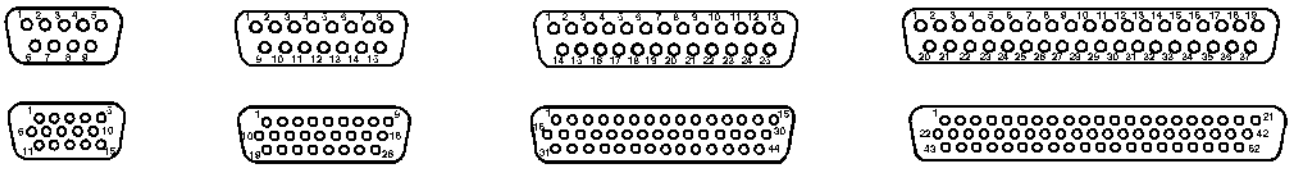
Fixed Contacts:	Size 20 contacts on the top connector, 0.040 inch [1.02 mm] diameter. Size 22 contacts on the bottom connector, 0.030 inch [0.76 mm] diameter. Female contacts – rugged open entry design.
Contact Retention in Insulator:	7 lbs. [31 N].
Contact Terminations:	Printed board mount with 90° terminations supported in footprint pattern by a plastic cross bar. Termination diameter 0.030 inch [0.76 mm] and 0.028 inch [0.71 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 polyester 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.

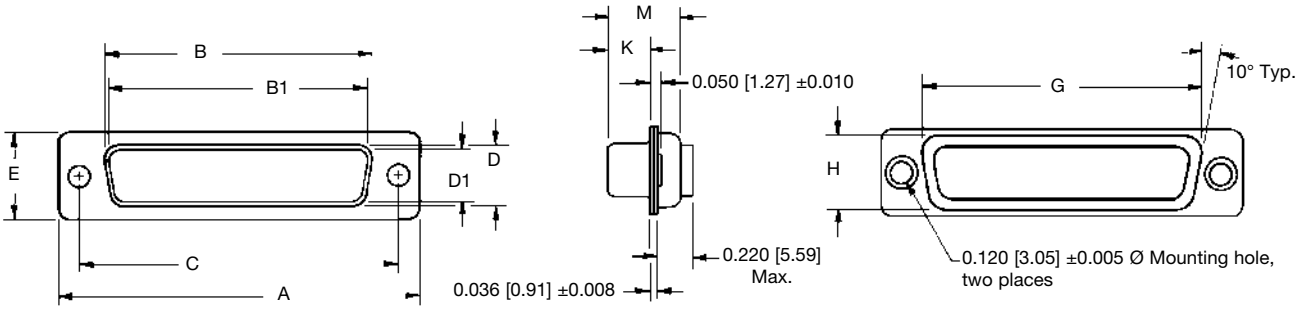
CONTACT VARIANTS

FACE VIEW OF MALE OR REAR VIEW OF FEMALE



XD*9/15 | XD*15/26 | XD*25/44 | XD*37/62

STANDARD SHELL ASSEMBLY

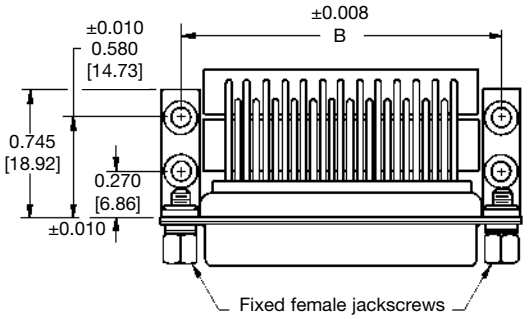


CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
9M/15M	1.213 [30.81]		0.666 [16.92]	0.984 [24.99]		0.329 [8.36]	0.494 [12.55]	0.759 [19.28]	0.422 [10.72]	0.233 [5.92]	0.422 [10.72]
9F/15F	1.213 [30.81]	0.643 [16.33]		0.984 [24.99]	0.311 [7.90]		0.494 [12.55]	0.759 [19.28]	0.422 [10.72]	0.243 [6.17]	0.429 [10.90]
15M/26M	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]
15F/26F	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]
25M/44M	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]
25F/44F	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]
37M/62M	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]
37F/62F	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]

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

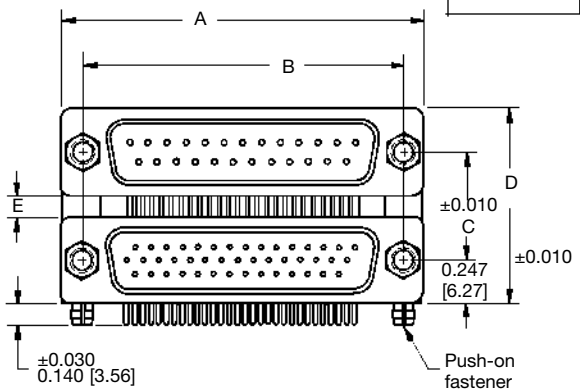
90° PRINTED BOARD MOUNT CONNECTOR

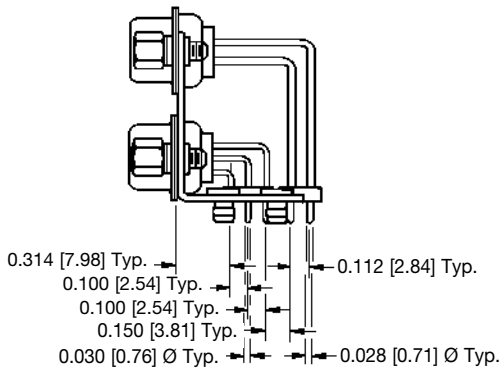
5 ROW CONNECTOR UNIT, 0.314 [7.98] CONTACT EXTENSION



CONNECTOR VARIANT	NO. OF CONTACTS	A	B
9/15	24	1.213 [30.81]	0.984 [24.99]
15/26	41	1.541 [39.14]	1.312 [33.32]
25/44	69	2.088 [53.04]	1.852 [47.04]
37/62	99	2.729 [69.32]	2.500 [63.50]

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



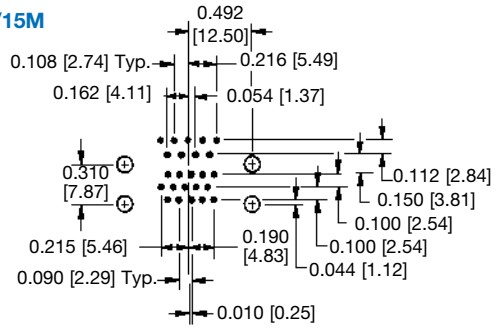


DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

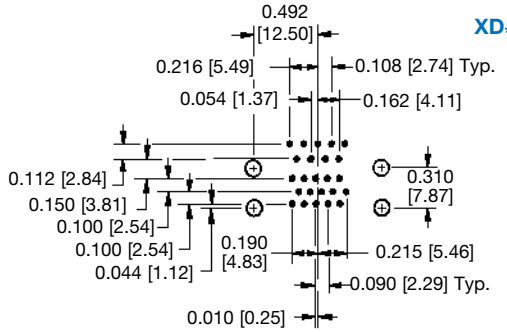
CONTACT HOLE PATTERN

Mount connector with mating face positioned to follow direction of arrows.

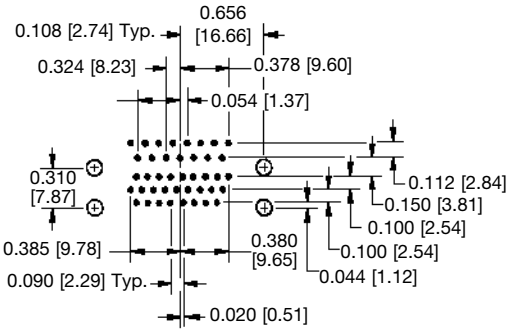
XD*9M/15M



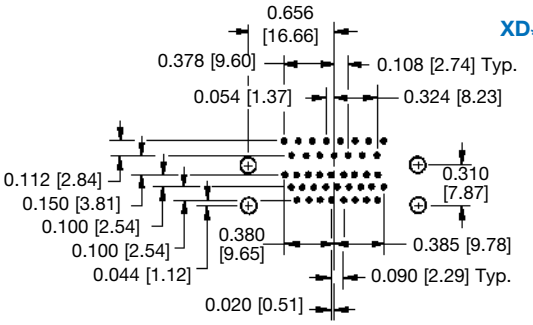
XD*9F/15F



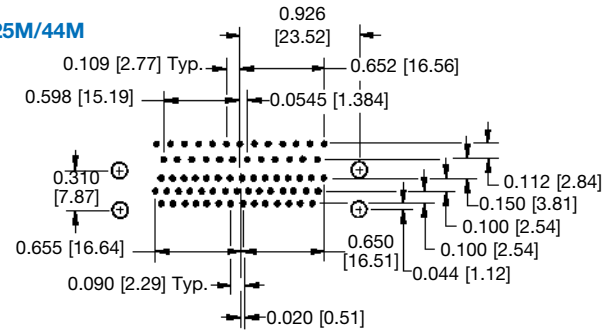
XD*15M/26M



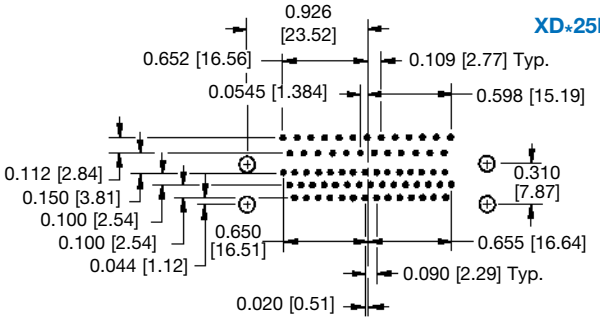
XD*15F/26F



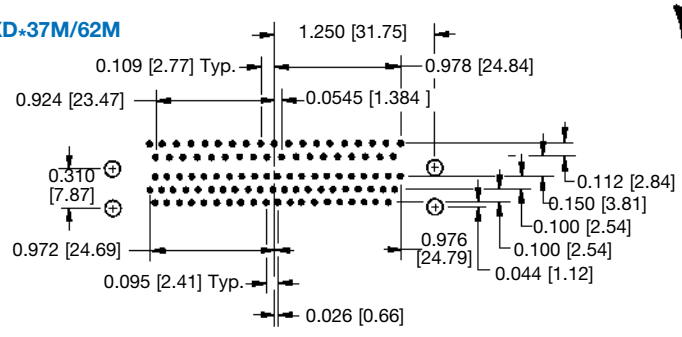
XD*25M/44M



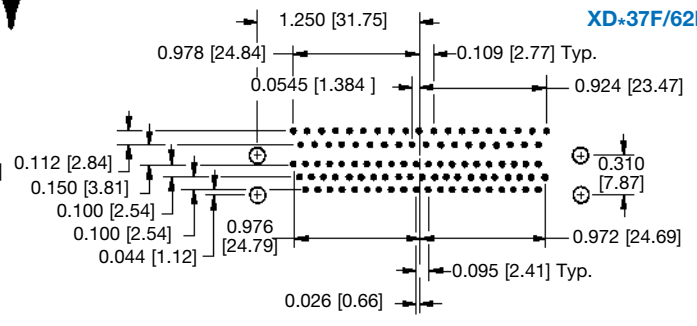
XD*25F/44F



XD*37M/62M



XD*37F/62F



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

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 [0.51] opposite direction of arrows for use of unriveted mounting brackets with connectors.

Mount connector with mating face positioned to follow direction of arrows.

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	/	5	6	7	8	—	9
Upper Connector	XDA	25	F	R7T		44	F	R7T	0		Lower Connector

STEP 1 - Basic Series
XDA Series
XDB Series
XDC Series

STEP 2 - Normal Density Connector Variants
9, 15, 25, 37

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 Thread 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 Thread 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.

STEP 5 - High Density Connector Variants
15, 26, 44, 62

STEP 6 - Connector Gender
M - Male
F - Female

STEP 7 - Locking, Polarizing, Mounting and Push-On Fastener Systems
0 - None.
R2 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Thread 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 Thread 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 and with Push-on Fastener.
N7 - Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar 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.

STEP 8 - Shell Options
0 - Zinc Plated.
X - Tin Plated.
Z - Tin Plated and Dimpled - male connector only

STEP 9 - Special Options
Consult Sales Department.

Combo Dual Port Series

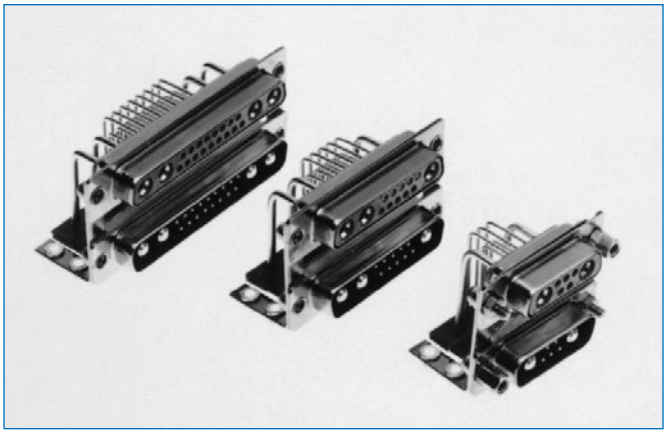
PROFESSIONAL QUALITY PRINTED BOARD MOUNT COMBINATION POWER AND SIGNAL CONTACT DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

Power and Signal Contacts

U.L. Recognized File #E49351

CSA Recognized File #LR54219

Telecommunication U.L. File #14095



The Combo-Dual Port connector series offers several combinations of power and signal contacts within the same connector assembly. Fifteen different combinations of power and signal contact stacked assemblies are available within four standard shell sizes. The connector assembly can be partially populated with either signal or power contacts installed in the connector bodies to customer selected contact positions. The stacked connectors may be spaced apart to two dimensional spacings.

On special order, the 90° printed board mount 15 ampere contacts may be replaced with size 8 power, shielded or high voltage contacts having crimp or solder cup terminations. Signal contacts remain in dual port configuration.

Mounting angle brackets can be ordered riveted to the connector by specifying R2, R6, R7 and R8 options. 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.

Combo-Dual Port Series connectors comply with the dimensional requirements of IEC 807-2 and DESC 85039.

COMBO-DUAL PORT TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass filled polyester per ASTM D5927, UL 94V-0, blue color.
Signal Contacts:	Male contacts–precision machined copper alloy. Female contacts–precision machined high tensile phosphor bronze.
Signal Contact Plating:	Gold flash over nickel plate. Other finishes available upon request.
Power Contacts:	Male contacts-precision machined copper alloy. Female contacts-precision machined high tensile copper alloy.
Power Contact Plating:	Gold flash over nickel. Other finishes available upon request.
Shells:	Steel or brass with tin platel. Other materials and finishes available upon request.
Mounting Spacers	Steel or brass with tin plate or zinc.
Push-On Fasteners:	Beryllium copper, tin plated.
Jackscrew Systems:	Steel with clear zinc plate or zinc plate.
Vibration Lock Systems:	Lock tabs, steel with nickel plate.

ELECTRICAL CHARACTERISTICS:

Signal Contacts:	7.5 amperes nominal.
Initial Contact Resistance:	0.008 ohms maximum.
Power Contacts:	15 ampere nominal for 90° board mount. 10, 20 and 40 ampere nominal are removable contacts with solder or crimp terminations.
Initial Contact Resistance:	0.0005 ohms max. per 512-2, test 2b
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:

Signal Contacts:	Size 20 male contacts- 0.040 inch [1.0mm] diameter. Female contact-rugged open entry design.
Contact Retention In Insulator:	9 lbs. [40N]
Contact Terminations:	Printed board mount with 90° terminations supported by alignment bar. Termination diameter 0.028 inch [0.71mm].
Power Contacts:	Size 8 male contact- 0.142 inch [3.61mm] diameter. Female contact-open entry and closed entry options.
Contact Retention In Insulator:	22 lbs. [92N]
Contact Terminations:	Printed board mount with 90° terminations of 0.078 inch [1.98mm] diameter. Size 8 removable solder cup contacts with wire hole diameters of 0.188 inch [4.78mm], 0.112 inch [2.84mm] and 0.069 inch [1.75mm].
Shells:	Male connector 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, with 4-40 threads or 4-40 threads with polyester lock insert.
Mounting To Printed Board:	Rapid installation push-on fasteners.
Locking Systems:	Jackscrews and vibration locking system 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 COMBINATION POWER AND SIGNAL CONTACT DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY

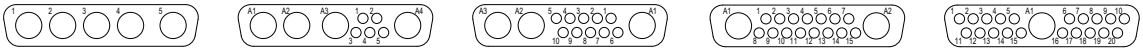
FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

CONTACT VARIANTS

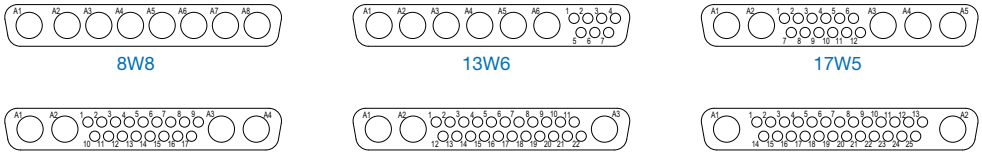
FACE VIEW OF MALE OR REAR VIEW OF FEMALE

SHELL SIZE 1 — SHELL SIZE 2

SHELL SIZE 3



SHELL SIZE 4



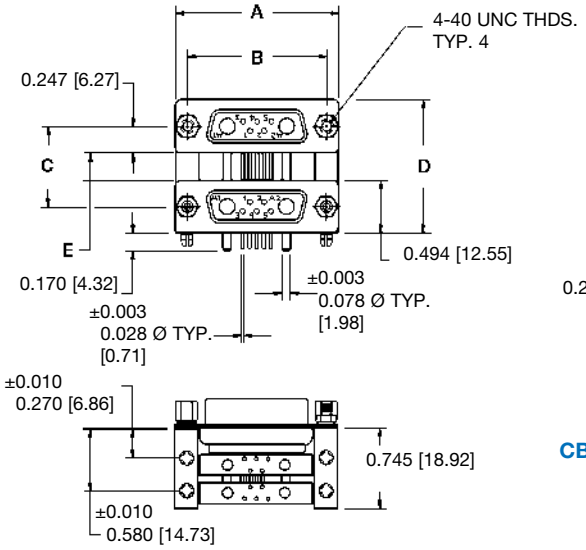
*3WK3: M variant contains 2 male contacts and 1 female contact
F variant contains 2 female contacts and 1 male contact

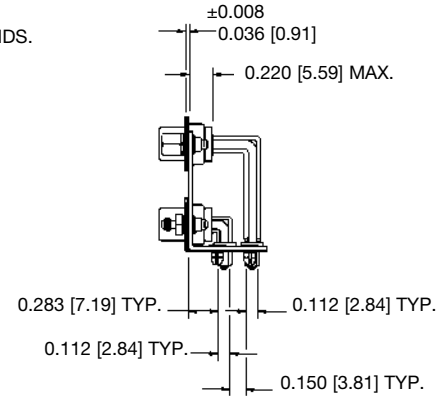
90° PRINTED BOARD MOUNT CONNECTOR

4 ROW CONNECTOR UNIT, 0.283 [7.19] CONTACT EXTENSION

15 AMPERE MAXIMUM RATED POWER CONTACTS

Note: 30 ampere 0.125 [3.18] Ø power contacts may be ordered at special request for a limited number of CBDP variants. Contact factory for details.





TYPICAL PART NUMBER:
CBDPB7W2MN8T2/7W2MN8T6X

CONNECTOR DESIGNATION	C	D	E
CBDPB	0.750 [19.05]	1.244 [31.60]	0.256 [6.50]
CBDPC	0.900 [22.86]	1.394 [35.41]	0.406 [10.31]

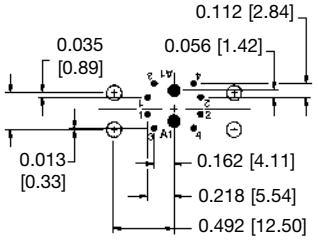
CONNECTOR VARIANT	A	B
SHELL SIZE 1	1.213 [30.81]	0.984 [24.99]
SHELL SIZE 2	1.541 [39.14]	1.312 [33.32]
SHELL SIZE 3	2.088 [53.04]	1.852 [47.04]
SHELL SIZE 4	2.729 [69.32]	2.500 [63.50]

Note: Printed board power contacts [size 8] may be replaced with a size 8 removable power, shielded or high voltage contact having solder or crimp terminations.

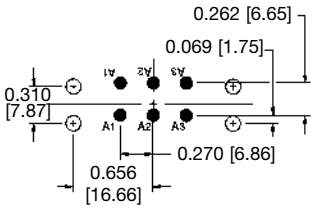
DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.

90° PRINTED BOARD CONTACT HOLE PATTERN

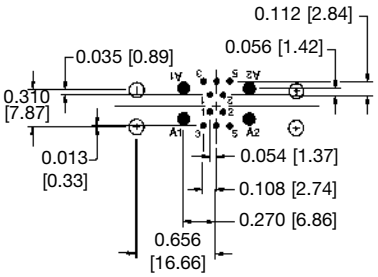
Hole identification shown is for female connector over male connector.
Mount connector with mating face positioned to follow direction of arrow.



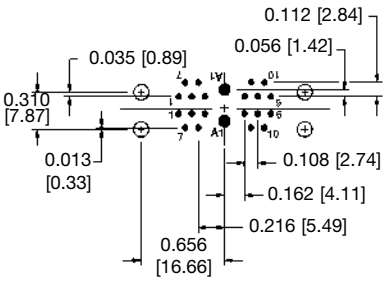
5W1/5W1



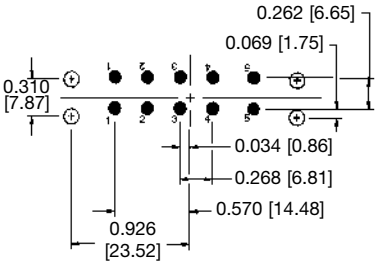
3W3/3W3
3WK3/3WK3



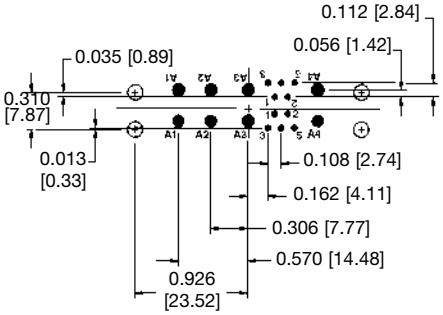
7W2/7W2



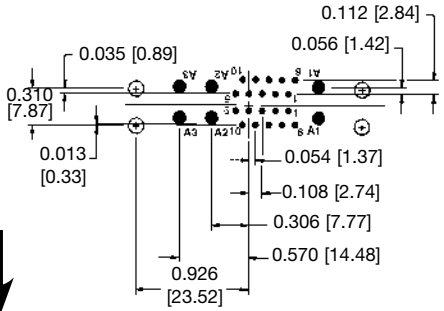
11W1/11W1



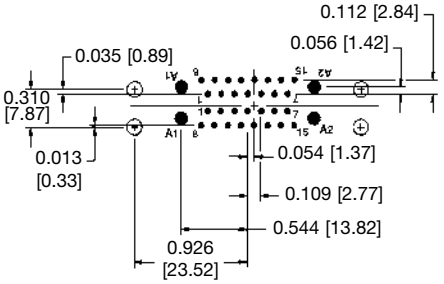
5W5/5W5



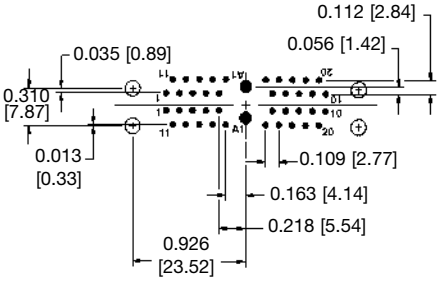
9W4/9W4



13W3/13W3



17W2/17W2



21W1/21W1

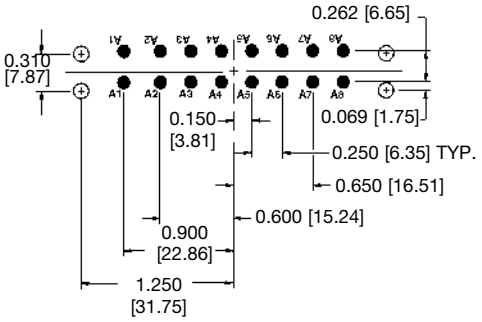
Suggest 0.045 [1.14] Ø hole for signal contact termination positions.
Suggest 0.098 [2.49] Ø hole for 0.078 [1.98] Ø power contact termination positions.
Suggest 0.123 ±0.003 [3.12] Ø hole for mounting connector with push-on fasteners.

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

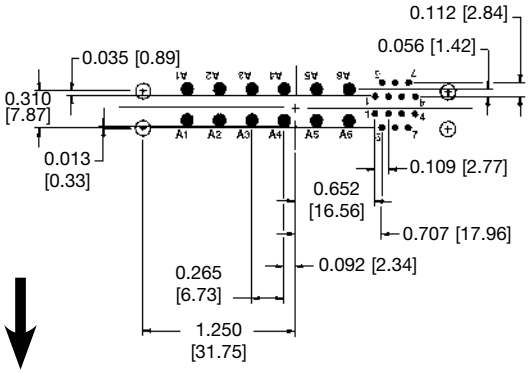
**DIMENSIONS ARE IN INCHES [MILLIMETERS].
ALL DIMENSIONS ARE SUBJECT TO CHANGE.**

90° PRINTED BOARD CONTACT HOLE PATTERN

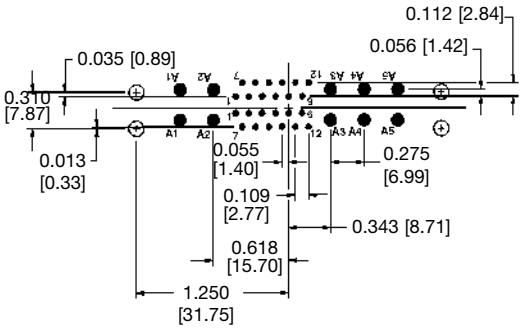
Hole identification shown is for female connector over male connector.
Mount connector with mating face positioned to follow direction of arrow.



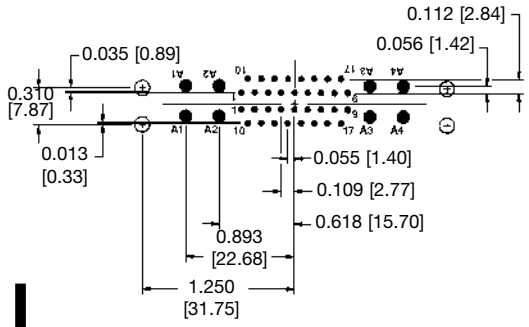
8W8/8W8



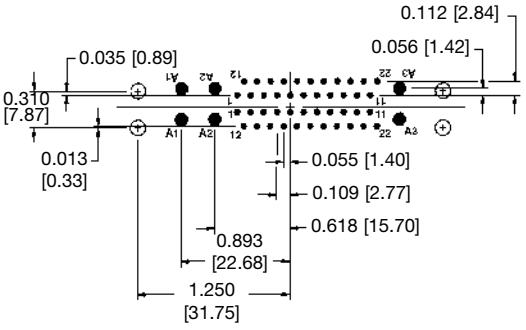
13W6/13W6



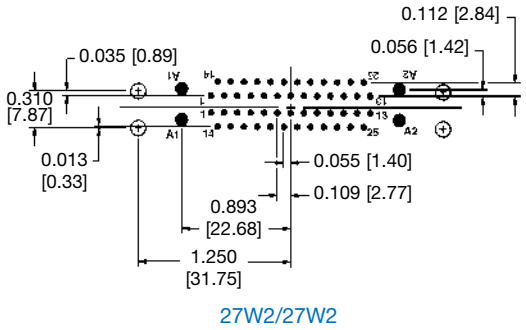
17W5/17W5



21WA4/21WA4



25W3/25W3



27W2/27W2

Suggest 0.045 [1.14] Ø hole for signal contact termination positions.
Suggest 0.098 [2.49] Ø hole for 0.078 [1.98] Ø power 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 [0.51] ±0.010 opposite direction of arrow for use of unriveted mounting bracket with connectors.

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		5	6	7	8		9
	CBDPB	7W2	F	R7T	/	7W2	M	R7T	0	—	

Upper Connector

Options are the same as for Upper Connector Steps 2, 3, and 4

Lower Connector

STEP 1 - Basic Series
CBDPB Series
CBDPC Series

STEP 2 - CBDP Series Connector Variants
5W1

Shell Size 2
3W3, 3WK3, 7W2, 11W1

Shell Size 3
5W5, 9W4, 13W3, 17W2, 21W1

Shell Size 4
8W8, 13W6, 17W5, 21WA4, 25W3, 27W2

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 Thread, Fixed Female Jackscrews and 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 Thread, Fixed Female Jackscrews with Cross Bar and Push-On Fastener
N6 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar and Push-on Fastener
N7 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Threads with Cross Bar and Push-on Fastener
N8 – Bracket, Mounting, 90° Metal, Swaged to Connector with 4-40 Locknut with Cross Bar and Push-on Fastener
T – Fixed Female Jackscrews
T2 – Fixed Female Jackscrews
T6 – Fixed Male and Female Polarized Jackscrews

STEP 8 - Shell Options
0 – Zinc Plated.
X – Tin Plated.
Z – Tin Plated and Dimpled - male connector only.

STEP 9 - Special Options
Consult Sales Department

Note: Size 8 removable power contacts with solder or crimp terminations with power ratings of 10, 20 and 40 amperes may be ordered in lieu of the 90° board mounted power contact. Removable size 8 shielded and high voltage contacts may also be ordered separately in lieu of the power contact. See catalog of Combo-D Subminiature-D Connectors for contact part numbers.

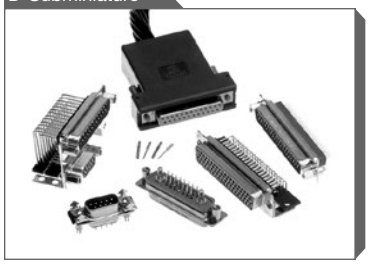
POSITRONIC PRODUCTS

Power

Contact Sizes: 0, 8, 12, 16, 20 and 22
Current Ratings: To 150 amperes
Terminations: Crimp, wire solder, straight solder, right angle solder, straight press-fit and right angle press-fit
Configurations: Multiple variants in a variety of package sizes
Compliance: PICMG 2.11, PICMG 3.0, VITA 41

FEATURES: Hot swap capability • AC/DC operation in a single connector • Signal contacts for hardware management • Blind mating • Sequential mating • Large Surface Area Contact Mating System • Wide variety of accessories • Customer specified contact arrangements

D-Subminiature



Contact Sizes: 8, 20 and 22
Current Ratings: To 40 amperes nominal
Terminations: Crimp, wire solder, straight solder, right angle solder and straight press-fit
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-24308, Goddard Space Flight 311P, MIL-C-39029, IP65, IP67

FEATURES: Three performance levels available: professional quality, military quality and space-flight quality provide multiple performance to cost choices • Options include thermocouple contacts, filtered, environmentally sealed and dual port package including mixed density • Broad selection of accessories

Rectangular

Contact Sizes: 16, 20 and 22
Current Ratings: To 13 amperes
Terminations: Crimp, wire solder, straight solder and right angle solder
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-28748, MIL-C-39029, CCITT V.35

FEATURES: Two performance levels available: industrial quality and military quality provide two performance to cost choices • Large Surface Area Contact Mating System • A wide variety of accessories • Broad selection of contact variants and package sizes

Circular

Contact Sizes: 12, 16, 20 and 22
Current Ratings: To 25 amperes nominal
Terminations: Crimp, wire solder, straight solder and right angle solder
Configurations: Multiple variants in two package sizes
Qualifications: Environmental protection to IP67

FEATURES: Non-corrodible / lightweight composite construction • EMI/RFI shielded versions • Thermocouple contacts • Environmentally sealed versions • Rear insertion/ front release of removable contacts • Two level sequential mating • Overmolding available on full assemblies

Cable

All Positronic connector products can be supplied as part of cable assemblies whose technical characteristics would reflect those of the connectors being used within the assembly.

FEATURES: Shorten the supply chain and reduce additional costs and delays by “cablizing” • Overmolding available • Shielded and environmentally sealed versions available • Power cables and access boxes which meet the SAE J2496 specification

Hermetic

Contact Sizes: 8, 12, 16, 20 and 22
Current Ratings: To 40 amperes nominal
Terminations: Feed through is standard; flying leads and board mount available upon request
Configurations: See D-Subminiature and Circular Configurations above
Qualifications: Space-D32

FEATURES: Intended for use as an electrical feedthrough in high vacuum applications • Leakage rate: 1 x 10-9 mbar.l/s • Signal, power, coax and high voltage versions available • Connectors can be mounted on flange assembly per customer specification

For more information, visit www.connectpositronic.com or call your nearest Positronic sales office as given on the back of this catalog.

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