

## Mixed Density Dual Port Series

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

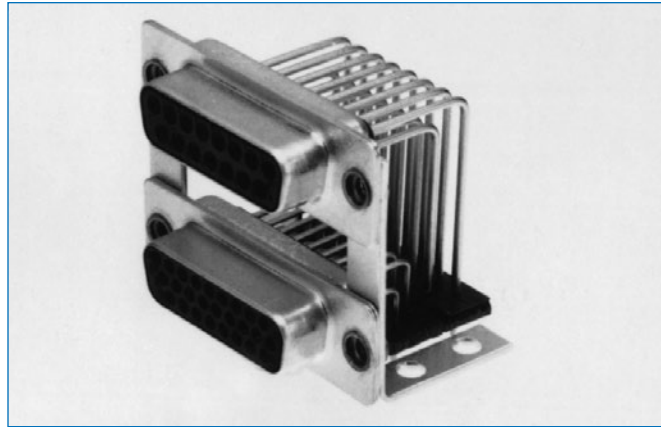
Size 20 and 22 Contacts  
Two Connectors Vertically  
Stacked and Assembled  
As a Single Connector Unit

### 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:

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

### ELECTRICAL CHARACTERISTICS:

<b>Contact Current Rating:</b>	5 amperes for standard density connectors. 3 amperes for high density connectors.
<b>Initial Contact Resistance:</b>	0.010 ohms maximum.
<b>Proof Voltage:</b>	1,000 V r.m.s.
<b>Insulator Resistance:</b>	5 G ohms.
<b>Clearance and Creepage Distance [minimum]:</b>	0.039 inch [1.0 mm].
<b>Working Voltage:</b>	300 V r.m.s.

### MECHANICAL CHARACTERISTICS:

<b>Fixed Contacts:</b>	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.
<b>Contact Retention in Insulator:</b>	7 lbs. [31 N].
<b>Contact Terminations:</b>	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].
<b>Shells:</b>	Male shells may be dimpled for EMI/ESD ground paths.
<b>Polarization:</b>	Trapezoidally shaped shells and polarized jackscrews.
<b>Mounting Bracket Riveted to Connector:</b>	Riveted fasteners with 0.120 inch [3.05 mm] diameter clearance hole, 4-40 threads, or 4-40 threads with polyester lock insert.
<b>Mounting to Printed Board:</b>	Rapid installation push-on fasteners.
<b>Locking Systems:</b>	Jackscrews and vibration locking systems for either front or rear panel mounted connectors.
<b>Mechanical Operations:</b>	500 operations minimum per IEC 512-5.

### CLIMATIC CHARACTERISTICS:

<b>Temperature Range:</b>	-55°C to +125°C.
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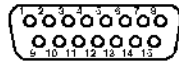


**CONTACT VARIANTS**

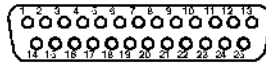
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



**XD\*9/15**



**XD\*15/26**

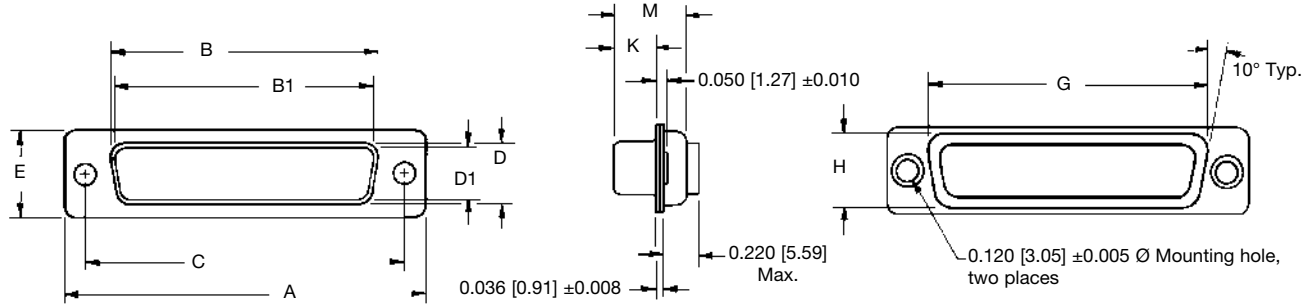


**XD\*25/44**



**XD\*37/62**

**STANDARD SHELL ASSEMBLY**

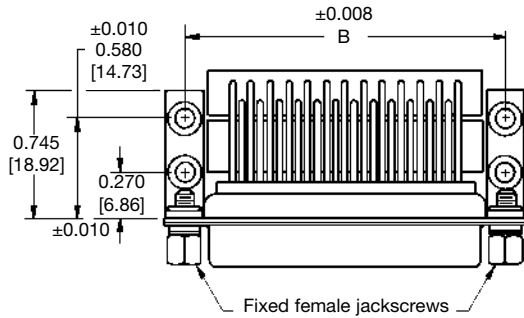


CONNECTOR VARIANT SIZES	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	G ±0.010	H ±0.010	K ±0.005	M ±0.010
<b>9M/15M</b>	1.213 [30.81]		0.666 [16.92]	0.984 [24.99]		0.329 [8.36]	0.494 [12.55]	0.759 [19.28]	0.422 [10.72]	0.233 [5.92]	0.422 [10.72]
<b>9F/15F</b>	1.213 [30.81]	0.643 [16.33]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

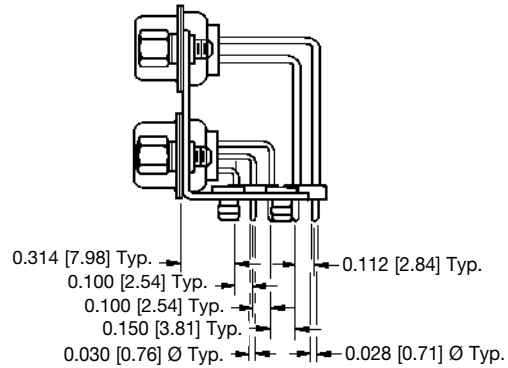
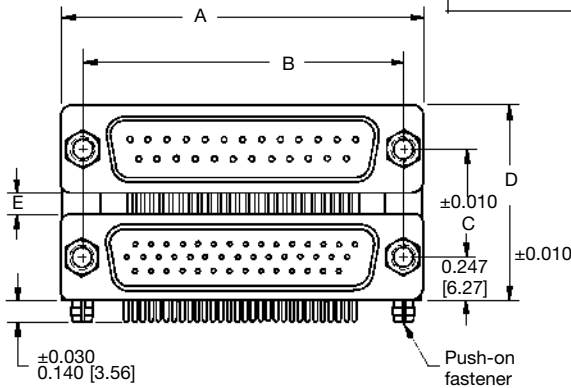
**90° PRINTED BOARD MOUNT CONNECTOR**

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]

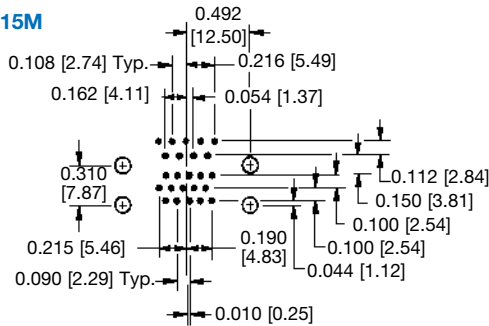


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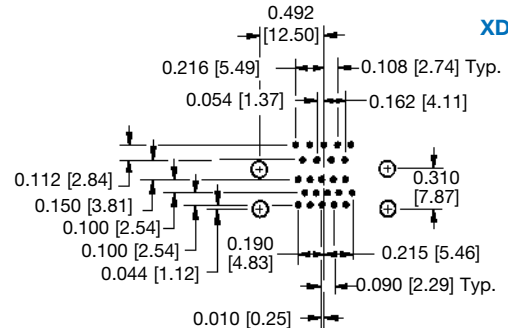
**CONTACT HOLE PATTERN**

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

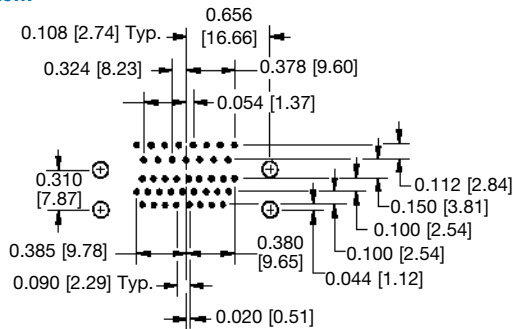
**XD\*9M/15M**



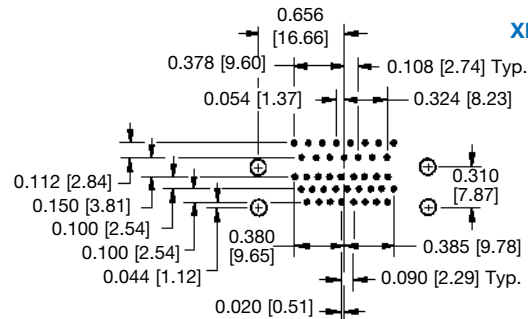
**XD\*9F/15F**



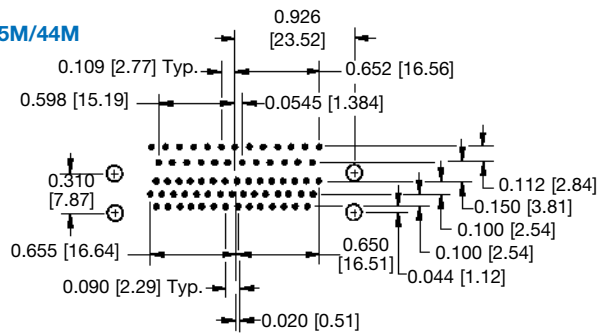
**XD\*15M/26M**



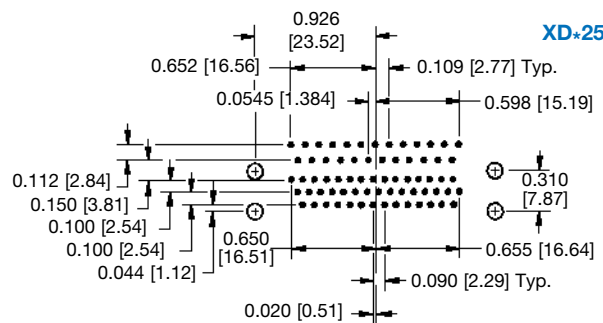
**XD\*15F/26F**



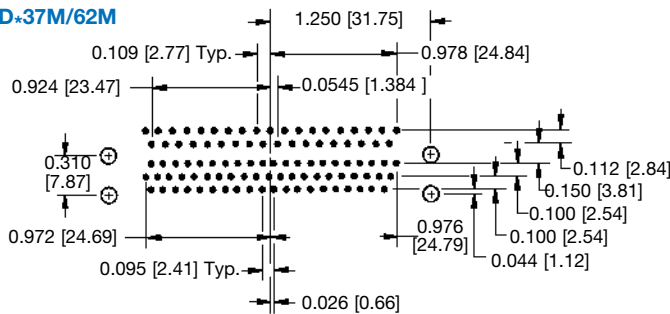
**XD\*25M/44M**



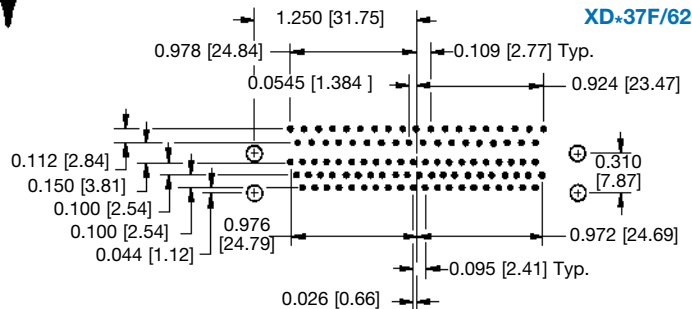
**XD\*25F/44F**



**XD\*37M/62M**



**XD\*37F/62F**



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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				
	<b>STEP 1 - Basic Series</b> XDA Series XDB Series XDC Series									<b>STEP 9 - Special Options</b> Consult Sales Department.			
	<b>STEP 2 - Normal Density Connector Variants</b> 9, 15, 25, 37									<b>STEP 8 - Shell Options</b> 0 - Zinc Plated. X - Tin Plated. Z - Tin Plated and Dimpled - male connector only			
	<b>STEP 3 - Connector Gender</b> M - Male F - Female									<b>STEP 7 - Locking, Polarizing, Mounting and Push-On Fastener Systems</b> 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.		<b>STEP 6 - Connector Gender</b> M - Male F - Female	
	<b>STEP 4 - Locking, Polarizing, Mounting and Push-On Fastener Systems</b> 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 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.									<b>STEP 5 - High Density Connector Variants</b> 15, 26, 44, 62			

