

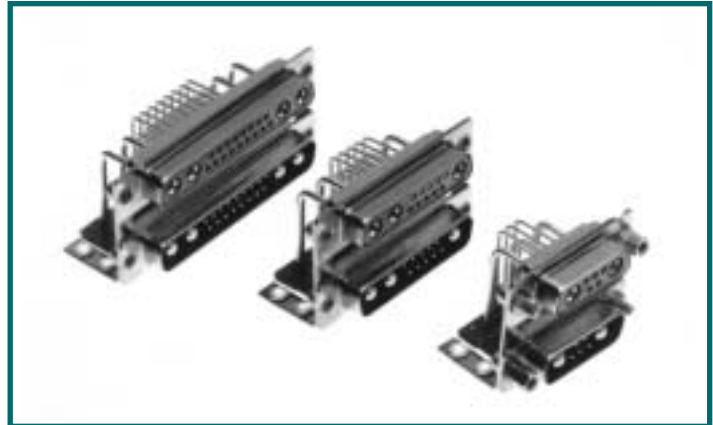


**Power and Signal  
Contacts**

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:

<b>Insulator:</b>	Polyester, glass filled per MIL-M-24519, UL 94V-0, blue color.
<b>Signal Contacts:</b>	Male contacts—precision machined copper alloy. Female contacts—precision machined high tensile phosphor bronze.
<b>Signal Contact Plating:</b>	Gold flash over nickel plate. Other finishes available upon request.
<b>Power Contacts:</b>	Male contacts—precision machined copper alloy. Female contacts—precision machined high tensile copper alloy.
<b>Power Contact Plating:</b>	Gold flash over nickel. Other finishes available upon request.
<b>Shells:</b>	Steel or brass with tin plate or zinc plate with dichromate seal. Other materials and finishes available upon request.
<b>Mounting Spacers and Brackets:</b>	Steel or brass with tin plate or zinc with dichromate seal.
<b>Cross Bar:</b>	Nylon, UL 94V-0, black color.
<b>Push-On Fasteners:</b>	Beryllium copper, tin plated.
<b>Jackscrew Systems:</b>	Steel with clear zinc plate or zinc plate with dichromate seal.
<b>Vibration Lock Systems:</b>	Lock tabs, steel with nickel plate.

### ELECTRICAL CHARACTERISTICS:

<b>Signal Contacts:</b>	7.5 amperes nominal.
<b>Initial Contact Resistance:</b>	0.008 ohms maximum.
<b>Power Contacts:</b>	15 ampere nominal for 90° board mount. 10, 20 and 40 ampere nominal are removable contacts with solder or crimp terminations.
<b>Initial Contact Resistance:</b>	0.0005 ohms max. per 512-2, test 2b
<b>Proof Voltage:</b>	1000 V r.m.s.
<b>Insulator Resistance:</b>	5 G ohms.
<b>Clearance and Creepage Distance (minimum):</b>	0.039 inch [1.0mm]
<b>Working Voltage:</b>	300 V r.m.s.

### MECHANICAL CHARACTERISTICS:

<b>Signal Contacts:</b>	Size 20 male contacts—0.040 inch [1.0mm] diameter. Female contact—rugged open entry design.
<b>Contact Retention In Insulator:</b>	9 lbs. [40N]
<b>Contact Terminations:</b>	Printed board mount with 90° terminations supported by alignment bar. Termination diameter 0.028 inch [0.71mm].
<b>Power Contacts:</b>	Size 8 male contact—0.142 inch [3.61mm] diameter. Female contact—open entry and closed entry options.
<b>Contact Retention In Insulator:</b>	22 lbs. [92N]
<b>Contact Terminations:</b>	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].
<b>Shells:</b>	Male connector 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 [3.05mm] diameter clearance hole, with 4-40 threads or 4-40 threads with nylon lock insert.
<b>Mounting To Printed Board:</b>	Rapid installation push-on fasteners.
<b>Locking Systems:</b>	Jackscrews and vibration locking system for either front or rear panel mounted connectors.
<b>Mechanical Operations:</b>	500 operations minimum per IEC 512-5.
<b>Temperature Range:</b>	-55°C to +125°C.
<b>Damp Heat, Steady State:</b>	10 days.

### CLIMATIC CHARACTERISTICS:

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



Positronic Industries, Inc.  
www.connectpositronic.com

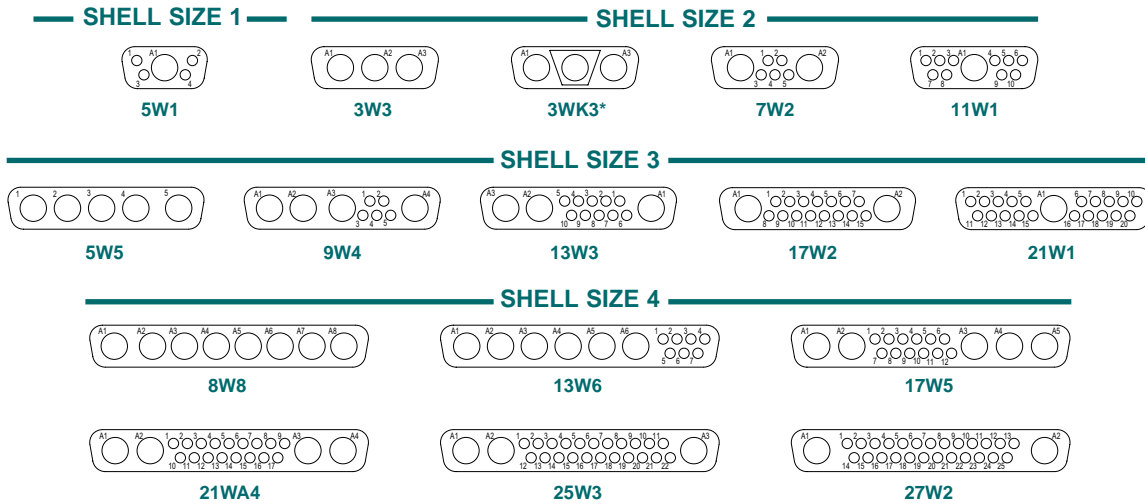
# PROFESSIONAL QUALITY PRINTED BOARD MOUNT COMBINATION POWER AND SIGNAL CONTACT DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY

Combo-D  
Sub-D

FOR SHELTERED INDOOR/OUTDOOR ENVIRONMENTAL APPLICATIONS

## CONTACT VARIANTS

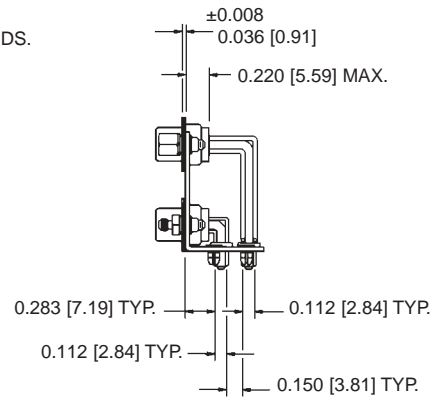
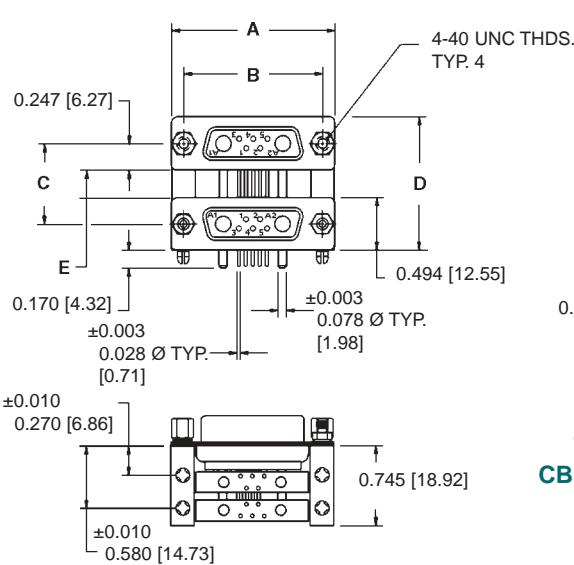
FACE VIEW OF MALE OR REAR VIEW OF FEMALE



**\*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:  
CBDBP7W2MN8T2/7W2MN8T6X

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]

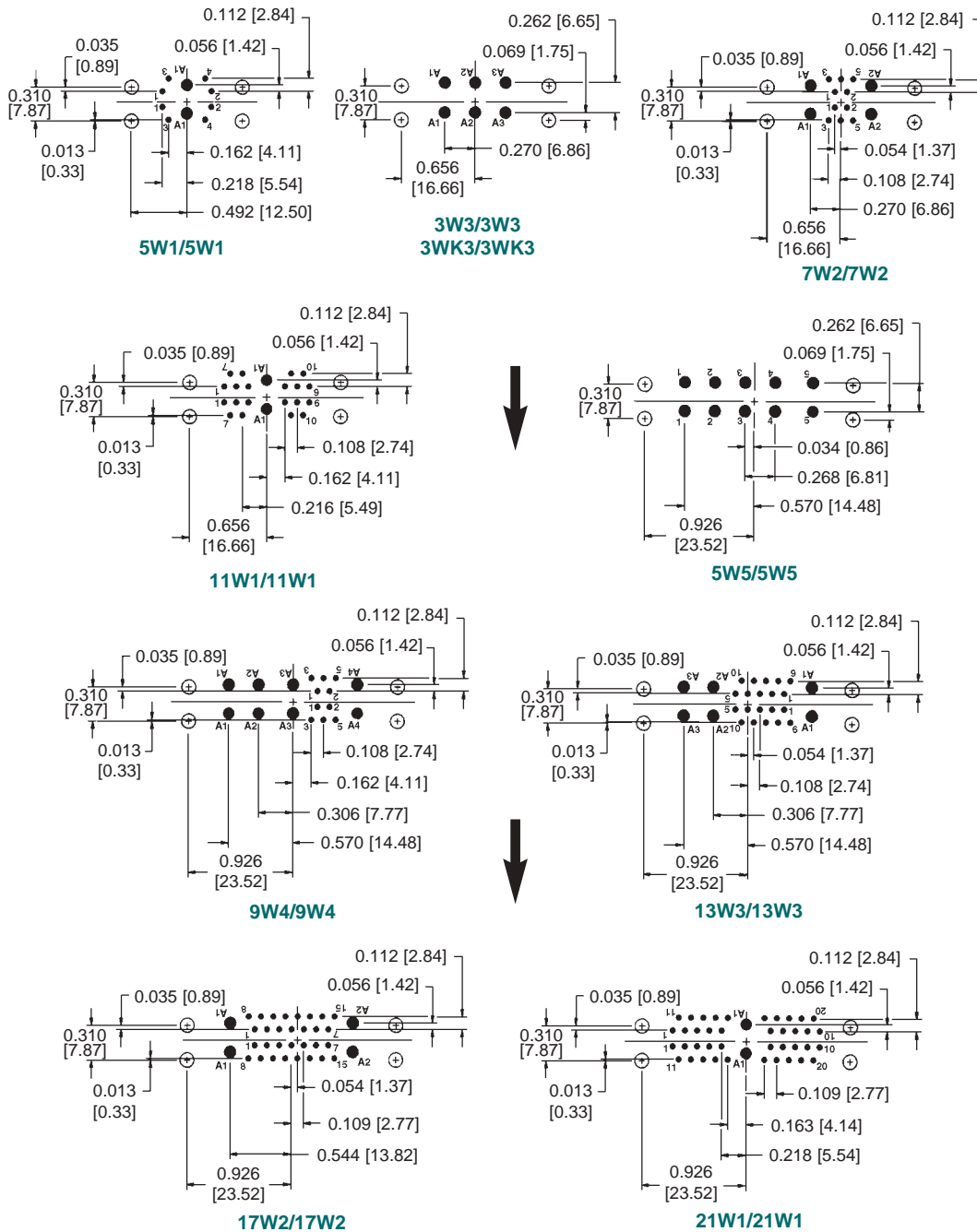
CONNECTOR VARIANT	A	B
SHELL SIZE 1	1.213 [30.81]	0.984 [24.99]
SHELL SIZE 2	1.541 [39.14]	1.312 [33.32]
SHELL SIZE 3	2.088 [53.04]	1.852 [47.04]
SHELL SIZE 4	2.729 [69.32]	2.500 [63.50]

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.



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.



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.



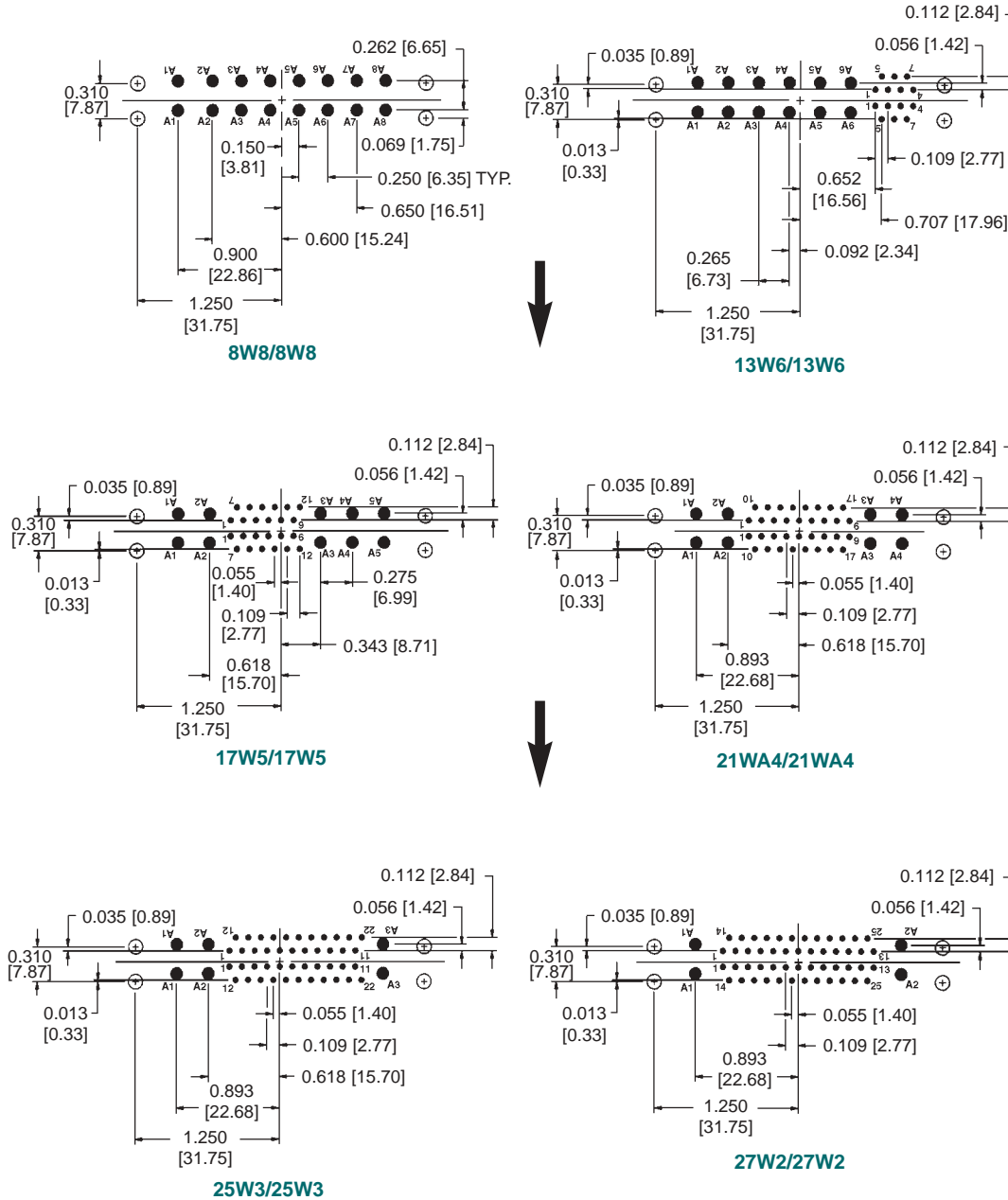
Positronic Industries, Inc.  
www.connectpositronic.com

# PROFESSIONAL QUALITY PRINTED BOARD MOUNT COMBINATION POWER AND SIGNAL CONTACT DUAL PORT VERTICALLY STACKED CONNECTOR ASSEMBLY

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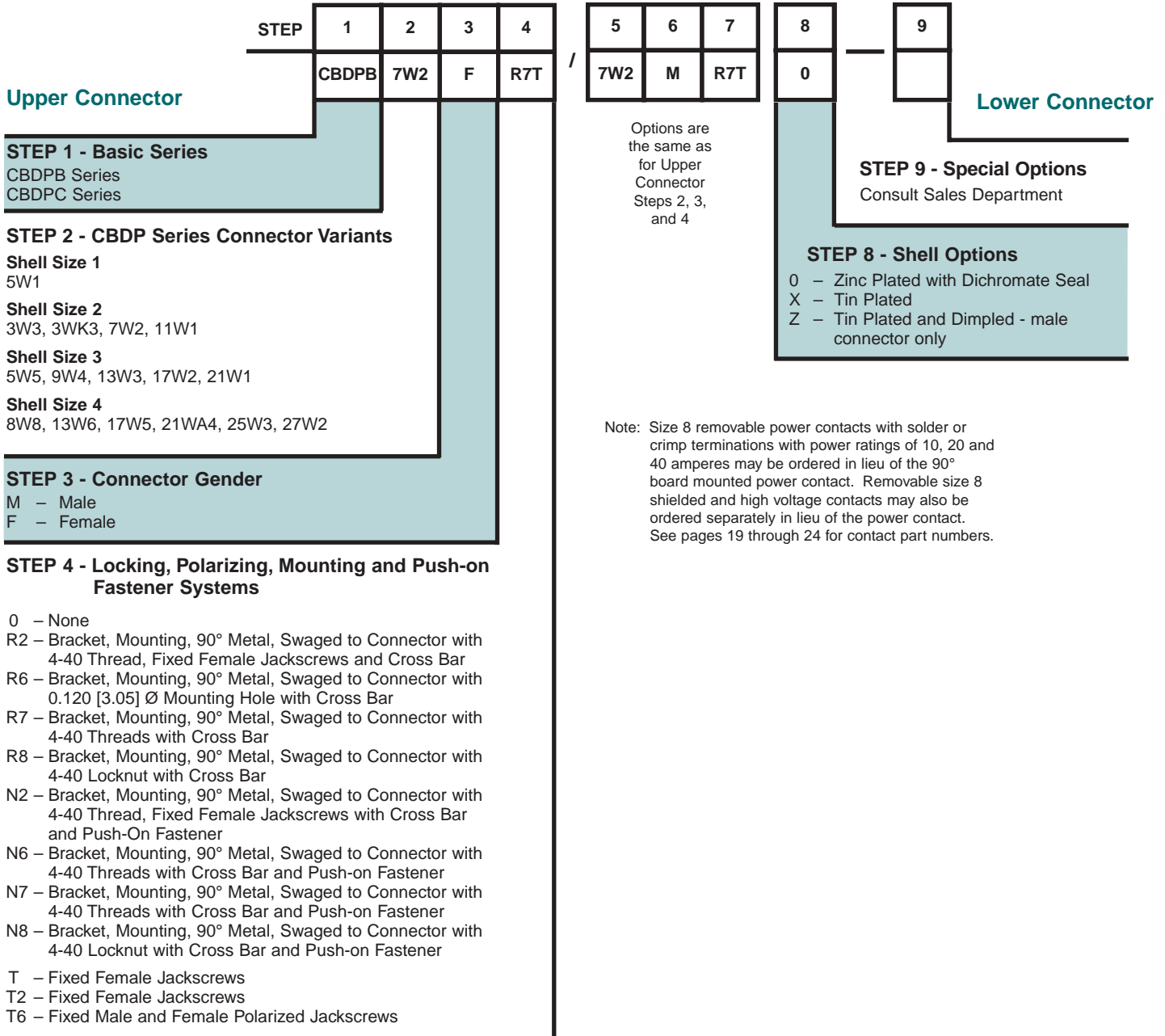
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CBDP SERIES



ORDERING INFORMATION – CODE NUMBERING SYSTEM

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



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 pages 19 through 24 for contact part numbers.