



Positronic Industries
connectpositronic.com

COMBO-D CONNECTOR SAVERS GENDER CHANGER

Combo-D
D-Sub

**Professional Quality Connectors
ACBDP Series
Size 20 "Open Entry" or
PosiBand® "Closed Entry"
Contact Design**

**Industrial /Military Quality
Connectors - ACBMP Series
Size 20 PosiBand®
"Closed Entry" Contact Design
Connector Saver**



ACBDP and ACBMP series connectors are suitable for use in any applications requiring high performance characteristic. The normal density ACBDP and ACBMP series are available in standard Combo-D connector variants.

ACBDP and ACBMP series connectors utilize precision machined contacts for strength and durability. The ACBDP female contact features a rugged "Open Entry" design or PosiBand "Closed Entry" design for even higher reliability. ACBMP connectors features PosiBand "Closed Entry" contacts and military contact plating.

ACBDP and ACBMP series connectors can be mated to a connector which would normally experience high numbers of mating cycles. The

ACBDP/ACBMP connector can be easily replaced, "Saving" a connector which is not easily replaced.

These connectors can also be used as a "gender changer". Connector Savers are also available in standard and high density D-subminiature versions, please consult our Professional, Industrial and Military Performance D-subminiature Connectors catalog for more information.

For high density 8W2, 19W1 and 45W2 adapter variants contact Technical Sales.



**For RoHS options
see page 60.**

CONNECTOR SAVERS

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator: Glass filled polyester per MIL-M-24519 UL 94V-0, blue color.

SIGNAL CONTACTS

ACBDP Series: Precision machined high tensile copper alloy open entry design.

ACBMP Series: Precision machined copper alloy.

POWER CONTACTS

ACBMP Series: Precision machined copper alloy closed entry design.

Contact Plating:

ACBDP Series: Gold flash over nickel plate.

ACBMP Series: 0.000050 [1.27µ] gold over nickel plate.

Shells:

Steel or brass with tin plate; zinc plate with chromate seal; stainless steel passivated. Other materials and finishes available upon request.

Jackscrew Systems: Brass or steel with zinc plate and chromate seal or clear zinc plate or tin plate; stainless steel, passivated.

Non-magnetic versions are available, contact Technical Sales.

MECHANICAL CHARACTERISTICS:

FIXED CONTACTS:

Signal Contacts: Size 20 contacts, male - 0.040 inch [1.02 mm] diameter. ACBDP series has female open entry contact or PosiBand closed entry contacts optional, see page 69 for details. ACBMP series offer female PosiBand closed entry contacts.

Power Contacts: Size 8 contacts, male - 0.142 inch [3.61 mm] diameter. Female contact features Large Surface Area (L.S.A.) closed entry contact design utilizing BeCu mechanical retention member.



TECHNICAL CHARACTERISTICS, *continued*

continued from previous page. . . .

MECHANICAL CHARACTERISTICS, continued:

- Connector Saver:** Male to female or male to male.
- Contact Retention:**
 - Signal:** 9 lbs. [40 N].
 - Power:** 22 lbs. [98 N].
- Shells:** Male shells may be dimpled for EMI/ESD ground paths.
- Polarization:** Trapezoidally shaped shells.
- Mechanical Operations:**
 - ACBDP Series:** 500 operations, minimum, per IEC 512-5.
 - ACBMP Series:** 1,000 operations, minimum, per IEC 512-5.

ELECTRICAL CHARACTERISTICS:

- SIZE 20 CONTACTS**
 - Contact Current Rating:** 7.5 amperes, nominal.
 - Initial Contact Resistance:** 0.008 ohms, maximum.
 - Proof Voltage:** 1,000 V r.m.s.
- SIZE 8 CONTACTS**
 - POWER CONTACTS**
 - Contact Current Rating:** 70 amperes, per U.L. 1977. *See Temperature Rise Curves on pages 1-2.*
 - Initial Contact Resistance:** 0.0005 ohms, maximum
 - Proof Voltage:** 1,000 V r.m.s.
- CONNECTOR**
 - Insulator Resistance:** 5 G ohms.
 - Clearance and Creepage Distance:** 0.039 inch [1.0 mm], minimum.
 - Working Voltage:** 300 V r.m.s.

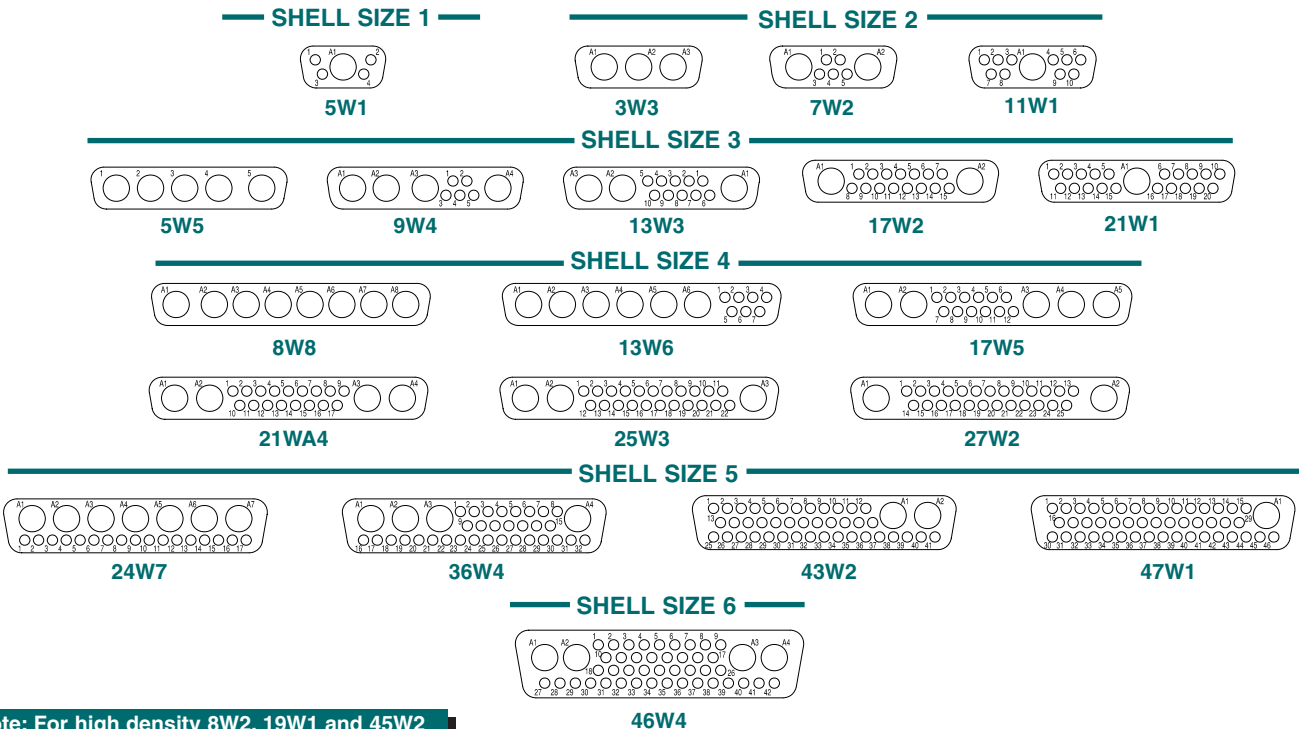
CLIMATIC CHARACTERISTICS:

- Temperature Range:** -55°C to +125°C.

ACBDP/ACBMP SERIES SIZE 20 AND SIZE 8 CONTACT CONNECTOR SAVER

CONTACT VARIANTS

FACE VIEW OF MALE OR REAR VIEW OF FEMALE



Note: For high density 8W2, 19W1 and 45W2 variants contact Technical Sales for availability.



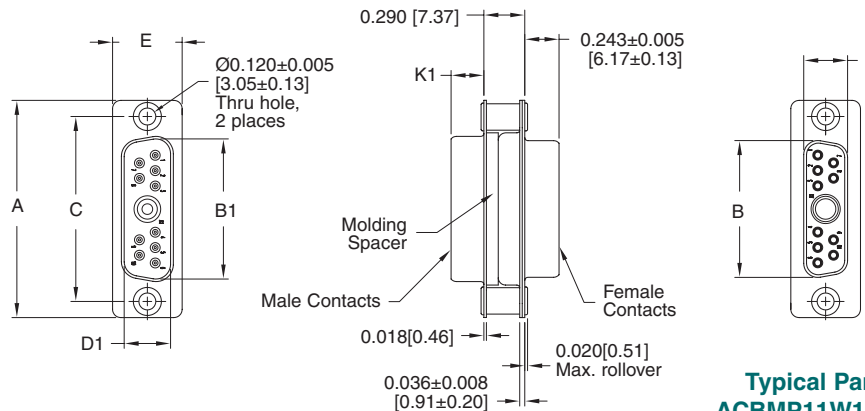
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COMBO-D CONNECTOR SAVERS GENDER CHANGER

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MALE TO FEMALE CONNECTOR SAVER SIZE 20 AND SIZE 8 CONTACTS CODE 0 AND S

NOTE:
Code S = Swaged
spacer with 4-40
UNC-2B threads.



Typical Part Number:
ACBMP11W1F0011W1M00

CONNECTOR SIZE	A ±0.015	B ±0.005	B1 ±0.005	C ±0.005	D ±0.005	D1 ±0.005	E ±0.015	K1 ±0.005
SHELL SIZE 1	1.213 [30.81]	0.643 [16.33]	0.666 [16.92]	0.984 [24.99]	0.311 [7.90]	0.329 [8.36]	0.494 [12.55]	0.233 [5.92]
SHELL SIZE 2	1.541 [39.14]	0.971 [24.66]	0.994 [25.25]	1.312 [33.32]	0.311 [7.90]	0.329 [8.36]	0.494 [12.55]	0.233 [5.92]
SHELL SIZE 3	2.088 [53.04]	1.511 [38.38]	1.534 [38.96]	1.852 [47.04]	0.311 [7.90]	0.329 [8.36]	0.494 [12.55]	0.230 [5.84]
SHELL SIZE 4	2.729 [69.32]	2.159 [54.84]	2.182 [55.42]	2.500 [63.50]	0.311 [7.90]	0.329 [8.36]	0.494 [12.55]	0.230 [5.84]
SHELL SIZE 5	2.635 [66.93]	2.064 [52.43]	2.079 [52.81]	2.406 [61.11]	0.423 [10.74]	0.441 [11.20]	0.605 [15.37]	0.230 [5.84]
SHELL SIZE 6	2.729 [69.32]	2.189 [55.60]	2.212 [56.18]	2.500 [63.50]	0.485 [12.32]	0.503 [12.78]	0.668 [16.97]	0.230 [5.84]

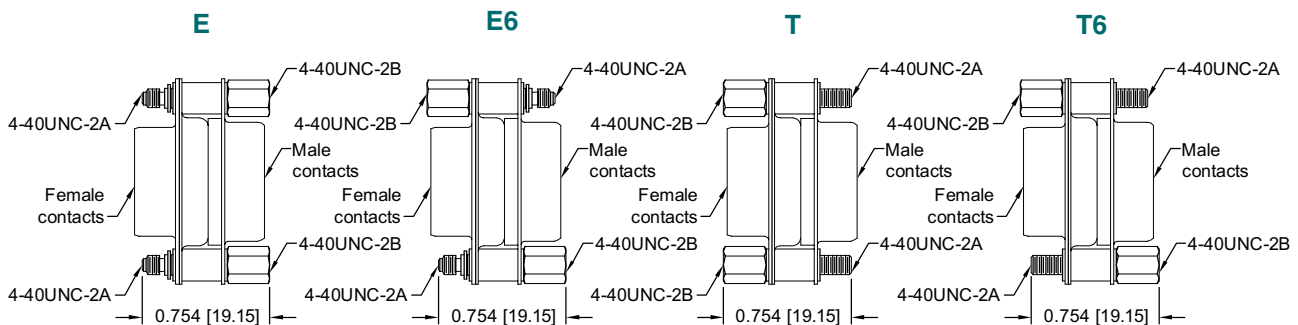
JACKSCREW SYSTEMS CODE E, E6, T AND T6

ROTATING
MALE AND FEMALE
JACKSCREWS

ROTATING
MALE AND FEMALE
POLARIZED JACKSCREWS

FIXED
MALE AND FEMALE
JACKSCREWS

FIXED
MALE AND FEMALE
POLARIZED JACKSCREWS



Example Part Number:
ACBDP5W1FEX5W1M0X

Example Part Number:
ACBDP5W1FE6X5W1M0X

Example Part Number:
ACBDP5W1FTX5W1M0X

Example Part Number:
ACBDP5W1FT6X5W1M0X



ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 Through 9

STEP	1	2	3	4	5	6	7	8	9	10	11
EXAMPLE	ACBDP	11W1	F	S	X	11W1	M	S	X	/AA	-14

STEP 1 - BASIC SERIES

ACBDP – Professional / Industrial Quality, see Step 3.
ACBMP – Military conformance with “closed entry” female signal contacts plated 0.000050 [1.27µ] gold over nickel plate. Choose “S” or “M” in Step 3.

STEP 2 - CONNECTOR VARIANT

Shell Size 1
5W1
Shell Size 2
3W3, 7W2, 11W1
Shell Size 3
5W5, 9W4, 13W3, 17W2, 21W1
Shell Size 4
8W8, 13W6, 17W5, 21WA4, 25W3, 27W2
Shell Size 5
24W7, 36W4, 43W2, 47W1
Shell Size 6
46W4

Note: For high density 8W2, 19W1 and 45W2 variants contact Technical Sales for availability.

STEP 3 - 1ST CONNECTOR GENDER

F - Female - Professional Level - Open Entry Signal Contacts
*1M - Male
S - Female - Industrial / Military Level - PosiBand Closed Entry Signal Contacts. Military gold plating is optional.

*2 STEP 4 - 1ST CONNECTOR MATING STYLE

0 - Swaged spacer 0.120 [3.05µ] mounting hole
S - Swaged spacer 4-40 UNC-2B threads
*3 E - Rotating male and female jackscrews (Select 0 in Step 8)
*3 E6 - Rotating male and female polarized jackscrew (Select 0 in Step 8)
*3 T - Fixed male and female jackscrews (Select 0 in Step 8)
*3 T6 - Fixed male and female polarized jackscrew (Select 0 in Step 8)

STEP 5 - 1ST CONNECTOR SHELL OPTION

0 - Zinc Plated, with Chromate Seal.
*4 S - Stainless Steel, passivated.
X - Tin Plated.
Z - Tin Plated and Dimpled (male connectors only).

STEP 11 - SPECIAL OPTIONS

FOR SPECIAL OPTIONS, SEE SPECIAL OPTIONS APPENDIX ON PAGE 89.

STEP 10 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - Compliant per EU Directive 2002/95/EC (RoHS)



NOTE: If compliance to environmental legislation is not required, this step will not be used. Example: ACBDP11W1FSX11W1MSX

STEP 9 - 2ND CONNECTOR SHELL OPTION

0 - Zinc Plated, with Chromate Seal.
*4 S - Stainless Steel, passivated.
X - Tin Plated.
Z - Tin Plated and Dimpled (male connectors only).

*2 STEP 8 - 2ND CONNECTOR MATING STYLE

0 - Swaged spacer 0.120 [3.05µ] mounting hole
S - Swaged spacer 4-40 UNC-2B threads
*3 E - Rotating male and female jackscrews (Select 0 in Step 4)
*3 E6 - Rotating male and female polarized jackscrew (Select 0 in Step 4)
*3 T - Fixed male and female jackscrews (Select 0 in Step 4)
*3 T6 - Fixed male and female polarized jackscrew (Select 0 in Step 4)

STEP 7 - 2ND CONNECTOR GENDER

M - Male

*5 STEP 6 - 2ND CONNECTOR VARIANT

Select same variant as chosen in STEP 2.

NOTES

- *1 Male option in Step 3 available only on connector variants 5W1, 3W3, 7W2, 11W1, 17W2, 21W1, 21WA4, 27W2, 24W7, 46W4.
- *2 Connector mating style for both connectors must be the same if 0 or S is used. If E, E6, T or T6 is used in either Step 4 or 8 the other step must be 0.
- *3 For hardware information, see page 59.
- *4 For stainless steel dimpled male versions, contact Technical Sales.
- *5 Connector variant for both connectors must be the same.