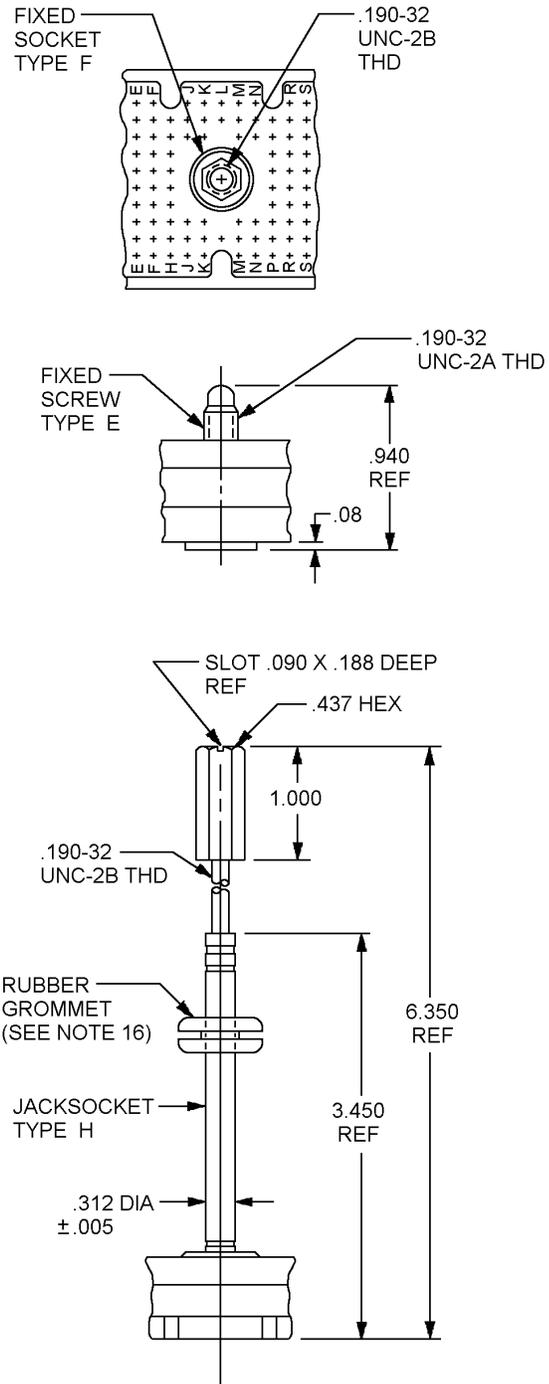




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Inches	mm
.005	0.13
.018	0.46
.040	1.02
.050	1.27
.052	1.32
.080	2.03
.082	2.08
.090	2.28
.100	2.54
.125	3.18
.155	3.94
.187	4.75
.188	4.77
.190	4.83
.195	4.95
.240	6.10
.312	7.92
.382	9.70
.385	9.78
.400	10.16
.437	11.20
.532	13.51
.570	14.48
.625	15.88
.700	17.78
.765	19.43
.940	23.88
1.000	25.40
1.141	28.96
1.234	31.34
1.800	45.72
1.970	50.04
2.282	57.96
2.770	70.36
2.718	69.04
2.950	74.93
3.372	86.65
3.450	87.63
6.350	161.30

FIGURE 1. Connector, female rectangular - Continued.

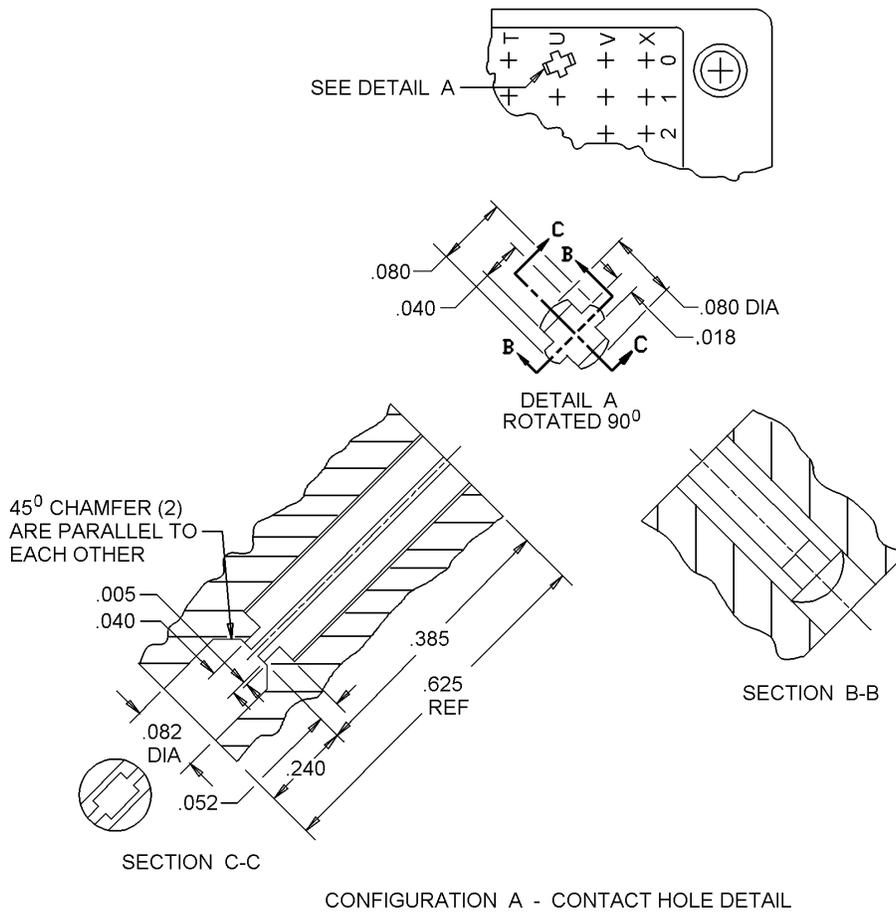
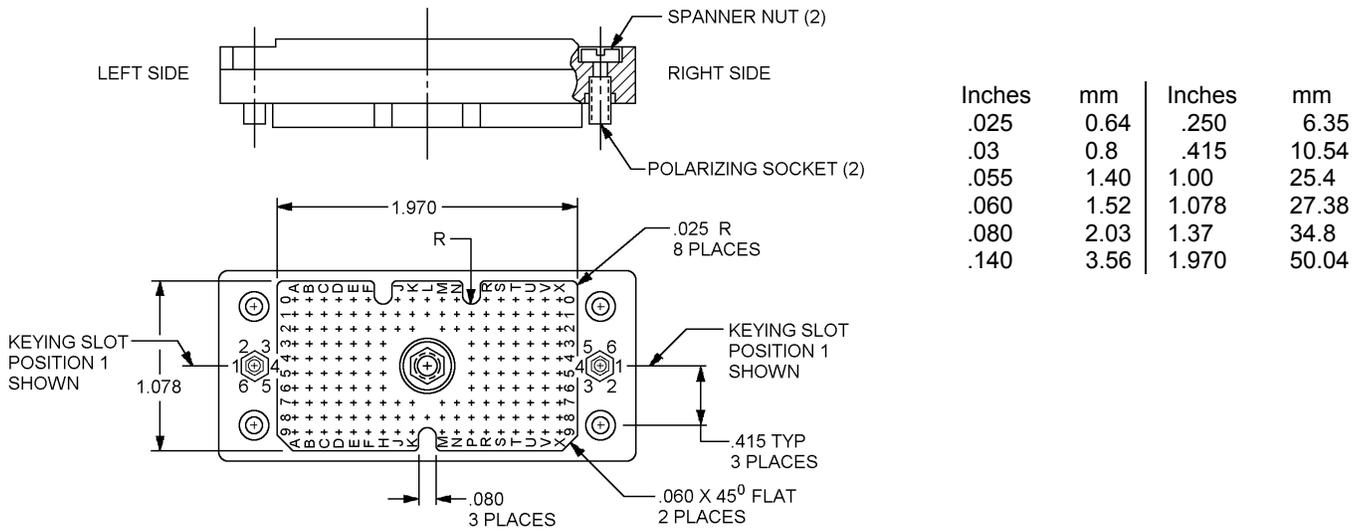


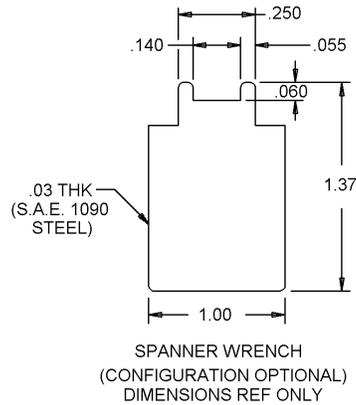
FIGURE 1. Connector, female rectangular - Continued.

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POLARIZING POSITION CHANGE

Polarizing key mating code	
R (FEMALE) position	P (MALE) position
1	4
2	5
3	6
4	1
5	2
6	3



CONFIGURATION B - CONNECTOR POLARIZATION GUIDE (LAYOUT)

Keying position on both polarizing sockets can be rotated to desired position by loosening spanner nut (counter-clockwise), resetting socket in one of six positions then retightening spanner nut (clockwise).

NOTE: Over tightening of spanner nut can fracture connector (see spanner keying wrench).

FIGURE 1. Connector, female rectangular - Continued.

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerances between any two contact centers shall be  $\pm .004$  (0.10 mm).
4. Flatness, squareness, and parallelism shall be within dimensional tolerances.
5. Contact hole details shall be in accordance with configuration B.
6. Mating connector information:  
M28732/32-0001 mate with M28732/31-0003 and -0005.  
M28732/32-0002 mate with M28732/31-0004 and -0006.  
M28732/32-0003 and -0005 mate with M28732/31-0001.  
M28732/32-0004 and -0006 mate with M28732/31-0002.
7. Polarization information:  
Polarization sockets are provided for indexing to preclude intermixing of adjacent connectors. By using a standard type spanner wrench, polarization sockets can be rotated to desired position. For parts supplied directly to the government, polarization will be in the 1-1 position. For other polarization positions, see connector polarization guide configuration A (see marking, note 13d). For direct government acquisition a tool is supplied in the unit package for polarization socket adjustment.
8. Contact and terminal designations:  
Contacts and terminal shall be designated on the insulator using letters in the location shown on figure 1.
9. Tolerance shall be  $\pm .010$  (0.25 mm) unless otherwise specified.
10. The Government has a royalty-free license under the following listed patents for the benefit of manufacturers of the item either for the Government or for use in equipment to be delivered to the Government. Patent notice: Patent No. 3,675,185 owned by Elco Corporation.
11. For direct government acquisition crimp contacts M28731/35-0001 are furnished in a plastic bag in each unit package (see marking, note 13a).
12. For direct government acquisition wrappost contacts are M28731/36-0001 and are factory installed in connector body (see marking, note 13a).
13. Marking:
  - a. Connectors supplied directly to government shall be marked with the military Part or Identifying Number (PIN) (see table I). Example M28731/34-0001.
  - b. Connectors supplied with contacts to government end users shall be marked with the military PIN (see table I). Example M28731/34-0001.
  - c. Connectors supplied without contacts to government end users shall be marked as follows:  
Example: M28731/34E (screw or socket type from table I). The user shall complete the remaining portion of the military PIN as shown in table I based upon contact type he assembles.  
Example: M28731/34E-0004.
  - d. Polarization position marking is not required unless otherwise specified. When required polarization marking shall be in accordance with the connector polarization guide (see configuration B). The marking shall appear following the PIN.
14. Applicable contact insertion and removal tools:  
Insertion: See MIL-I-81969/5-01.  
Removal: See MIL-I-81969/4-02.
15. Rectangular shield shall conform to MIL-DTL-28731/19, or MIL-DTL-28731/37 for applicable connectors listed in table II. Shields M28731/19-0011, -0012, -0019, 0020 and M28731/31-0001 must be ordered separately.
16. Rubber grommet No. MS35489-9 in accordance with NASM3036 shown on type H connector is for stabilizing actuating shaft in rectangular shield (M28731/37) (see table II).

FIGURE 1. Connector, female rectangular - Continued.

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REQUIREMENTS

Dimensions and configuration: See figure 1.

Mating and unmating forces (torque): 160 inch-ounces, maximum.

Dielectric withstanding voltage: 1,000 volts rms (sea level).

Mechanical shock (specified pulse): Applicable.

Contact retention: 6 pounds.

Contact separation force: 1 ounce, minimum.

Contact current rating: 5 amperes, 22 AWG wire.

Connector shields end grommets: See table I.

PIN information: See table II.

TABLE I. Connector shields and grommets.

Applicable shields (must be ordered separately)		
Connector M28731/34-	Shield	Grommet
-0001	M28731/19-0011, -0012, -0019, or -0020 (as required)	Supplied with shield
-0002		“
-0003		“
-0004		“
-0005		“
-0006		“
-0007	M28731-0001	Supplied on connector shaft

TABLE II. PIN information.

Military PIN	Actuating hardware	Polarizing socket position		Contact type
		Left side	Right side	
M28731/34-0001	Jackscrew Type G	1	1	Crimp, MIL-C-28731/35 <u>1/</u>
M28731/34-0002	Jackscrew Type D	1	1	Crimp, MIL-C-28731/35 <u>1/</u>
M28731/34-0003	Jackscrew Type F	1	1	Crimp, MIL-C-28731/35 <u>1/</u>
M28731/34-0004	Jackscrew Type E	1	1	Crimp, MIL-C-28731/35 <u>1/</u>
M28731/45-0005	Jackscrew Type F	1	1	Wrappost, MIL-DTL-28731/36 <u>2/</u>
M28731/34-0006	Jackscrew Type E	1	1	Wrappost, MIL-DTL-28731/36 <u>2/</u>
M28731/34-0007	Jackscrew Type H	1	1	Crimp, MIL-C-28731/35 <u>1/</u>

1/ See figure 1, note 11.

2/ See figure 1, note 12.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Referenced document. In addition to MIL-DTL-28731, this document references the following:

MIL-C-28731/35	NASM3036
MIL-DTL-28731/36	MIL-I-81969/4
MIL-DTL-28731/19	MIL-I-81969/5
MIL-DTL-28731/37	

#### CONCLUDING MATERIAL

Custodians:  
 Army – CR  
 Navy – EC  
 Air Force – 11  
 DLA – CC

Preparing activity:  
 DLA - CC

(Project 5935-4508-005)

Review activities:  
 Army – AR, AT, AV, CR4  
 Navy – AS, MC, OS,  
 Air Force – 19, 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organization and responsibilities can change, you should verify the currency of information above using the ASSIST Online database at [www.dodssp.daps.mil](http://www.dodssp.daps.mil).