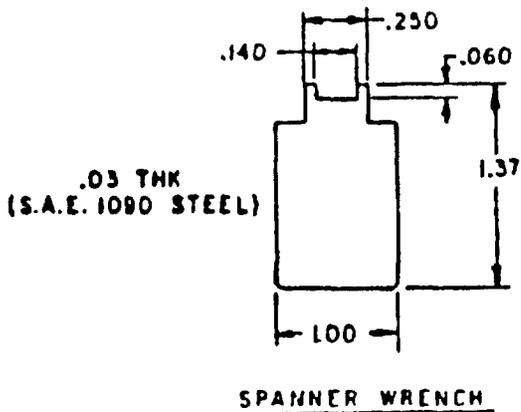


POLARIZING POSITION CHANGE

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

NOTE: Overtightening of spanner nut can fracture connector. Spanner keying wrench shown below.

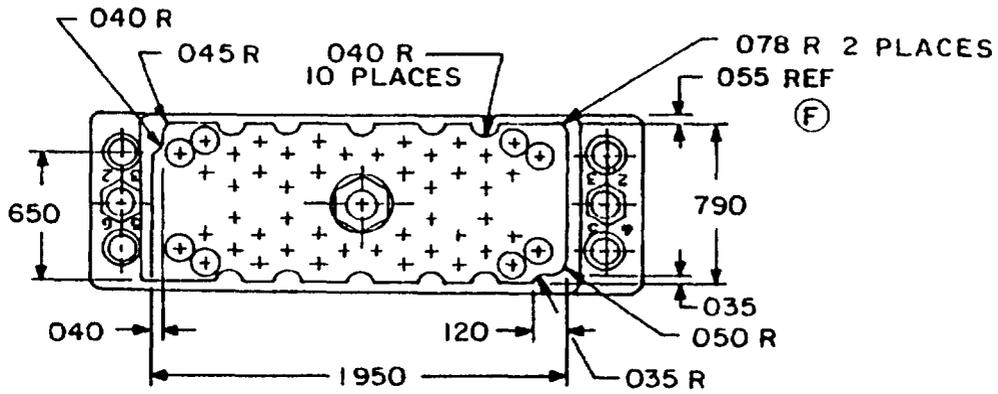


CONFIGURATION
OPTIONAL
DIMENSIONS REF ONLY

Inches	mm
.03	0.76
.060	1.52
.090	2.29
.110	2.79
.140	3.56
.250	6.35
1.00	25.4
1.37	34.8

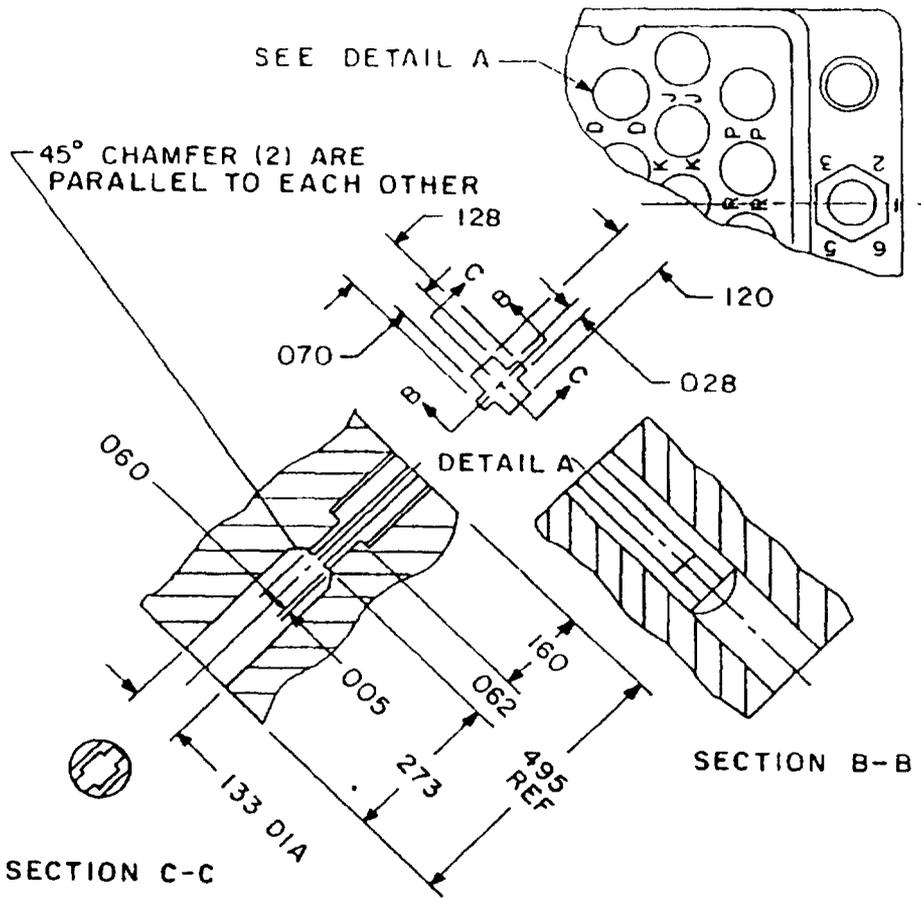
Configuration A - Connector polarization guide (layout)

FIGURE 1. Connector, male rectangular - Continued.



Inches	mm
.035	0.89
.040	1.02
.045	1.14
.050	1.27
.055	1.40
.078	1.98
.120	3.05
.650	16.51
.790	20.07
1.950	49.53

FIGURE 1. Connector, male rectangular - Continued.



Inches	mm
.005	0.13
.022	0.71
.060	1.52
.062	1.57
.070	1.78
.128	3.25
.133	3.38
.160	4.06
.273	6.93
.495	12.57

Configuration B - Contact hole detail

FIGURE 1. Connector, male 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 ± 0.004 (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
M28731/13-0073 and -0075 and mate with M28731/14-0074, -0076 and -0077.
M28731/13-0074, -0076 and -0077 mate with M28731/14-0073 and -0075.
M28731/13-0078, and -0079 and -0080 mate with M28731/14-0078 and -0079
- 7 Polarization information Polarization pins are provided for indexing to preclude intermixing of adjacent connectors. By using a standard type spanner wrench, polarization pins 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 13.d). For direct Government acquisition, a tool is supplied in the unit package for polarization socket adjustment.
8. Contact and terminal designations: Contacts and terminals shall be designated on the insulator using letters in the location shown on figure 1.
9. Unless otherwise specified, tolerance shall be ± 0.010 (0.25 mm).
10. Patent notice: Patent No. 3,248,686 owned by Elco Corporation. The Government has a royalty-free license under the above patent for the benefit of manufacturers of items called for in this specification, either for the Government or for use in equipment to be delivered to the Government.
11. For direct Government acquisition, crimp contacts M28731/20-0001 are furnished in a plastic bag in each unit package (see marking, note 13.a).
12. For direct Government acquisition, solder hole and wrappost contacts M28731/25-0001 and M28731/26-0001 are factory installed in connector body (see marking, note 13.a).
13. Marking:
 - a. Connectors supplied directly to the Government shall be marked with the military part number (see table I). Example: M28731/13-0074.
 - b. Connectors supplied with contacts to Government end users shall be marked with the military part number (see table I). Example: M28731/13-0074.
 - c. Connectors supplied without contacts to Government end users shall be marked as follows: Example: M28731/13F (screw or socket type from table I). The user shall complete the remaining portion of the military part number as shown in table I based upon contact type they assemble. Example: M28731/13F-0074.
 - d. Unless otherwise specified, polarization position marking is not required. When required, polarization marking shall be in accordance with the connector polarization guide (see configuration A). The marking shall appear following the part number.
14. Applicable contact insertion and removal tools:
Insertion - - - - - MIL-I-81969/13-01
Removal - - - - - MIL-I-81969/11-01
15. When double wire crimp contact MIL-C-28731/23 is required for use with the connector, it shall be ordered separately.
16. Rectangular shields shall conform to MIL-C-28731/19-0007 through -0010, MIL-C-28731/19-0017 and -0018 must be ordered separately.
17. Recommended hardware (not furnished) for panel mounting: (4) .112-40-UNC-2A (length to suit) bolt with no. 4 washer and mating nut.

FIGURE 1. Connector, male rectangular - Continued.

REQUIREMENTS

Dimensions and configurations See figure 1.

Mating and unmating forces (torque). 100 inch-ounces, maximum.

Dielectric withstanding voltage 1,250 V rms, 60 Hz minimum.

Mechanical shock High impact shock applicable

Part number See table I

TABLE I. Part number information.

Military part number	Actuating hardware	Polarizing pin position		Contact type
		A .110 dia.	B .090 dia.	
M28731/13-0073	Jackscrew type C	1	1	Crimp MIL-C-28731/20 <u>1/</u>
M28731/13-0074	Fixed socket type F	1	1	Crimp MIL-C-28731/20 <u>1/</u>
M28731/13-0075	Jackscrew type C	1	1	Solder hole MIL-C-28731/25 <u>2/</u>
M28731/13-0076	Fixed socket type F	1	1	Solder hole MIL-C-28731/25 <u>2/</u>
M28731/13-0077	Fixed socket type F	1	1	Wrappost MIL-C-28731/26 <u>2/</u>
M28731/13-0078	Fixed screw type E	1	1	Crimp MIL-C-28731/20 <u>1/</u>
M28731/13-0079	Fixed screw type E	1	1	Solder hole MIL-C-28731/25 <u>2/</u>
M28731/13-0080	Fixed screw type E	1	1	Wrappost MIL-C-28731/26 <u>2/</u>

1/ See figure 1, note 11.

2/ See figure 1, note 12.

NOTE: M28731/13-0073 supersedes M28731/13-0001 through M28731/13-0036.
M28731/13-0074 supersedes M28731/13-0037 through M28731/13-0072

CONCLUDING MATERIAL

Custodians

Army - CR
Navy - EC
Air Force - 85

Review activities

Army - AR, AT, MI
Navy - AS
Air Force - 11, 17, 99
DLA - ES

User activities

Army - AL, AV, ME
Navy - MC, OS
Air Force - 19

Preparing activity

Navy - EC

Agent:

DLA - ES

(Project 5935-3793-01)