MILITARY STANDARD

INSERT ARRANGEMENTS FOR
MIL-C-83723 SERIES III AND MIL-C-26500
ENVIRONMENT RESISTING, CIRCULAR,
ELECTRICAL CONNECTORS

TO ALL HOLDERS OF MIL-STD-1554:

1. THE FOLLOWING PAGES OF MIL-STD-1554 HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

| NEW PAGE | DATE | SUPERSEDED PAGE | DATE |
|---|---|---|---|
| 1 | 15 January 1976 | 1 | 1 July 1975 |
| 2 | 1 July 1975 | (REPRINTED WITHOUT CHANGE) | |

2. THE FOLLOWING PAGE IS TO BE ADDED:

| NEW PAGE | DATE |
|---|---|
| 90.5 | 15 January 1976 |

3. RETAIN THIS NOTICE PAGE AND INSERT BEFORE THE TABLE OF CONTENTS.

4. Holders of MIL-STD-1554 will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This insurance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the Military Standard is completely revised or canceled.

Custodians:
Army - EL
Navy - AS
Air Force - 85

Review activities:
Army - MU, AV, MI
Navy - EC
Air Force - 11, 15, 17, 80
DSA - ES

Preparing activity:
Air Force - 85

(Project 5935-2049)

☆ U.S GOVERNMENT PRINTING OFFICE 1981—703 023/3534

1 SCOPE

1 1 This standard covers insert arrangements for use with MIL-C-83723 series III and MIL-C-26500 environment resisting, circular, electrical connectors.

2 REFERENCED DOCUMENTS

2 1 The issues of the following documents in effect on the date of invitation for bids form a part of this standard to the extent specified herein

SPECIFICATIONS

MILITARY

MIL-C-26500 - Connectors, General Purpose, Electrical, Miniature, Circular, Environment Resisting, General Specification for
MIL-C-83723 - Series III - Connectors, Electrical, (Circular, Environment Resisting), Receptacles and Plugs, General Specification for

(Copies of specifications, standards, drawings and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer )

2 2 Other publications. The following document forms a part of this standard to the extent specified herein.

ANSI Y14 5-1973 - Dimensioning and Tolerancing

(Application for copies should be addressed to American Standards Institute, 1430 Broadway, New York, NY 10018.)

3 DEFINITIONS

3 1 The terms used in this standard are generally accepted by the electrical and electronics industries and commonly used in electrical connector engineering practice.

4 GENERAL REQUIREMENTS

Not applicable

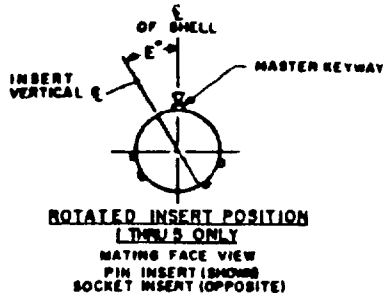
5 DETAIL REQUIREMENTS

5 1 Dimensions Dimensions shall be in accordance with the applicable section of this standard and the following dimensional data

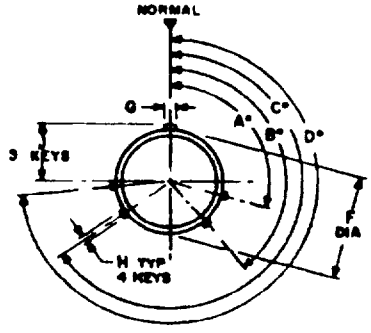
(a) Dimensioning and tolerancing in accordance with ANSI Y14 5-1973. Dimensions are true position and in inches
(b) Metric equivalents (to the nearest 01 mm) are given for general information only and are based upon 1 inch = 25 4 mm
(c) Dimensions and markings shown are for engaging face of socket insert, pin insert is opposite
(d) The following tolerances apply to insert installed in shell
1 Center of each hole in insert shall be located at true position within 014 dia. Ⓟ 014 dia.
2 Center of engaging end of each contact shall be located at true position within 024 dia. Ⓟ 024 dia
(e) Unless otherwise indicated, dimensions are symmetrical about centerline

5 2 Main key or keyway polarization (see figure 1)

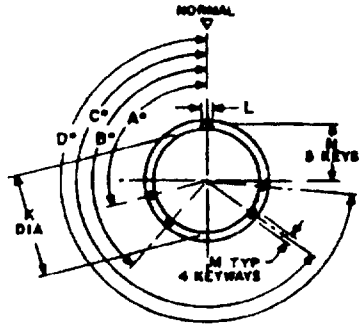
(a) Each insert arrangement is shown in the "normal position" in the shell
(b) For alternate polarizing positions, the connector insert is rotated in respect to the shell




ROTATED INSERT POSITION
(1 THRU 5 ONLY)
MATING FACE VIEW
PIN INSERT (SHOWN)
SOCKET INSERT (OPPOSITE)




PLUG SHELL
MATING FACE




RECEPTACLE SHELL
MATING FACE

ALTERNATE SHELL KEY POSITIONS FOR CONNECTORS

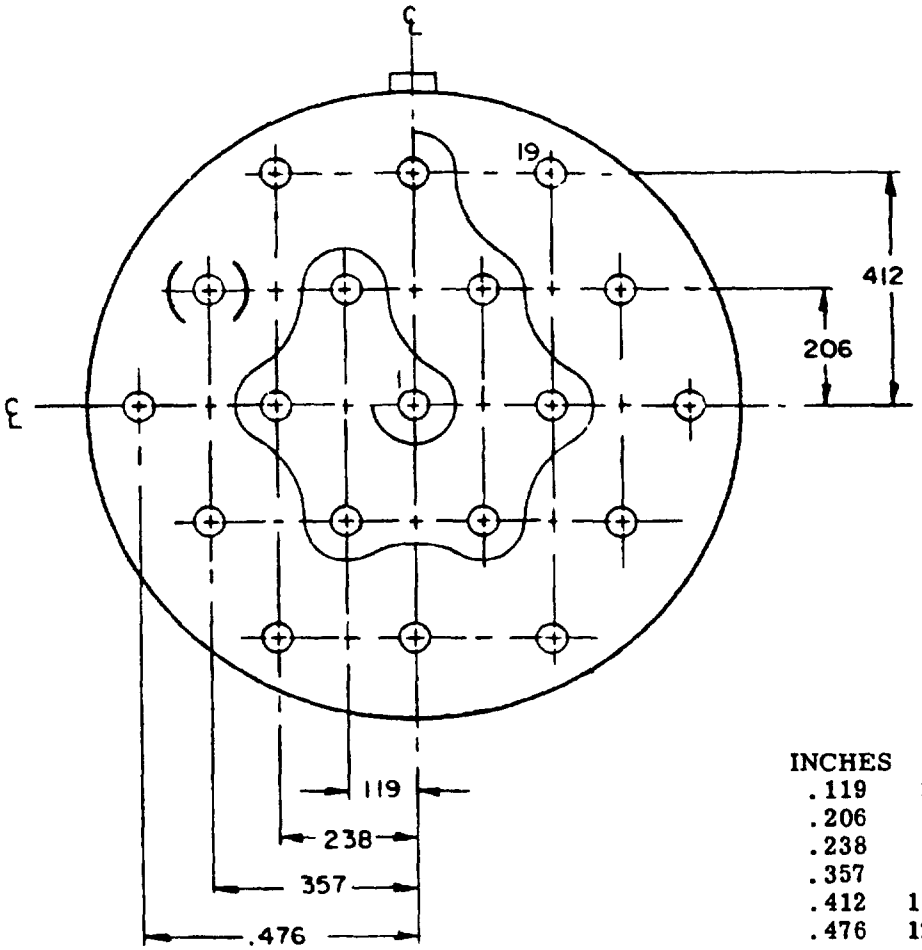
| POSITION | SIZE 8 | | | | SIZE 10 | | | | SIZES 12 THRU 24 | | | | INSERT POSITION E° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A° | B° | C° | D° | A° | B° | C° | D° | A° | B° | C° | D° | |
| N NORMAL | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 265 | 0 |
| 1 | - | - | - | - | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | ↓ | 10 |
| 2 | - | - | - | - | | | | | | | | | 20 |
| 3 | - | - | - | - | | | | | | | | | 30 |
| 4 | - | - | - | - | | | | | | | | | 40 |
| 5 | - | - | - | - | 105 | 140 | 215 | 265 | 105 | 140 | 215 | 285 | 50 |
| 6 | 102 | 132 | 248 | 320 | 102 | 132 | 248 | 320 | 18 | 148 | 192 | 258 | 0 |
| 7 | 80 | 118 | 230 | 312 | 80 | 118 | 230 | 312 | 92 | 182 | 222 | 342 | 0 |
| 8 | 35 | 140 | 208 | 275 | 35 | 140 | 205 | 275 | 84 | 152 | 204 | 334 | 0 |
| 9 | 64 | 139 | 234 | 304 | 64 | 135 | 234 | 304 | 24 | 135 | 199 | 240 | 0 |
| 10 | | | | | 25 | 115 | 220 | 270 | 98 | 152 | 268 | 338 | 0 |

| SHELL SIZE | F +.000 -.005 | G ±.003 | H ±.003 | J +.000 -.003 | K +.005 -.000 | L ±.003 | M +.005 -.000 | N +.005 -.000 |
|---|---|---|---|---|---|---|---|---|
| 8 | .424 | .084 | .042 | .234 | .428 | .094 | .063 | .237 |
| 10 | .526 | .084 | .052 | .285 | .530 | .094 | .072 | .288 |
| 12 | .696 | .084 | .052 | .370 | .700 | .094 | .072 | .373 |
| 14 | .765 | .084 | .052 | .405 | .789 | .094 | .072 | .406 |
| 16 | .892 | .115 | .052 | .468 | .896 | .125 | .072 | .471 |
| 18 | .998 | .115 | .052 | .521 | 1.002 | .125 | .072 | .524 |
| 20 | 1.123 | .115 | .052 | .583 | 1.127 | .125 | .072 | .586 |
| 22 | 1.248 | .115 | .052 | .646 | 1.252 | .125 | .072 | .649 |
| 24 | 1.373 | .115 | .052 | .708 | 1.377 | .125 | .072 | .711 |

## Main key/keyway polarization

| INCHES | MM | INCHES | MM | INCHES | MM |
|---|---|---|---|---|---|
| .003 | .08 | .373 | 9.47 | .700 | 17 78 |
| .004 | .10 | .405 | 10 29 | .708 | 17.98 |
| .005 | .13 | .408 | 10.36 | .711 | 18 06 |
| .042 | 1.07 | .424 | 10 77 | .765 | 19.43 |
| .052 | 1.32 | .428 | 10 87 | .769 | 19 53 |
| .063 | 1.60 | .468 | 11.89 | .892 | 22.66 |
| .072 | 1.83 | .471 | 11 96 | .896 | 22 76 |
| .084 | 2.13 | .521 | 13.23 | .998 | 25 35 |
| .094 | 2.39 | .524 | 13 31 | 1.002 | 25 45 |
| .115 | 2.92 | .526 | 13.36 | 1.123 | 28 52 |
| .125 | 3.18 | .530 | 13.46 | 1.127 | 28 63 |
| .234 | 5 94 | .583 | 14.81 | 1.248 | 31 70 |
| .237 | 6.02 | .586 | 14.88 | 1.252 | 31.80 |
| .285 | 7 24 | .646 | 16.41 | 1.373 | 34 87 |
| .288 | 7 32 | .649 | 16.48 | 1.377 | 34 98 |
| .370 | 9 40 | .696 | 17.68 | | |

FIGURE 1 Main key or keyway polarization




| INCHES | MM |
|---|---|
| .119 | 3.02 |
| .206 | 5.23 |
| .238 | 6.05 |
| .357 | 9.07 |
| .412 | 10.46 |
| .476 | 12.09 |

| Shell size | Arrangement number | Number of contacts | Size contacts | Service rating | Contact location | Superseded document |
|---|---|---|---|---|---|---|
| 24 | 19 | 19 | 12 | I | All | --- |