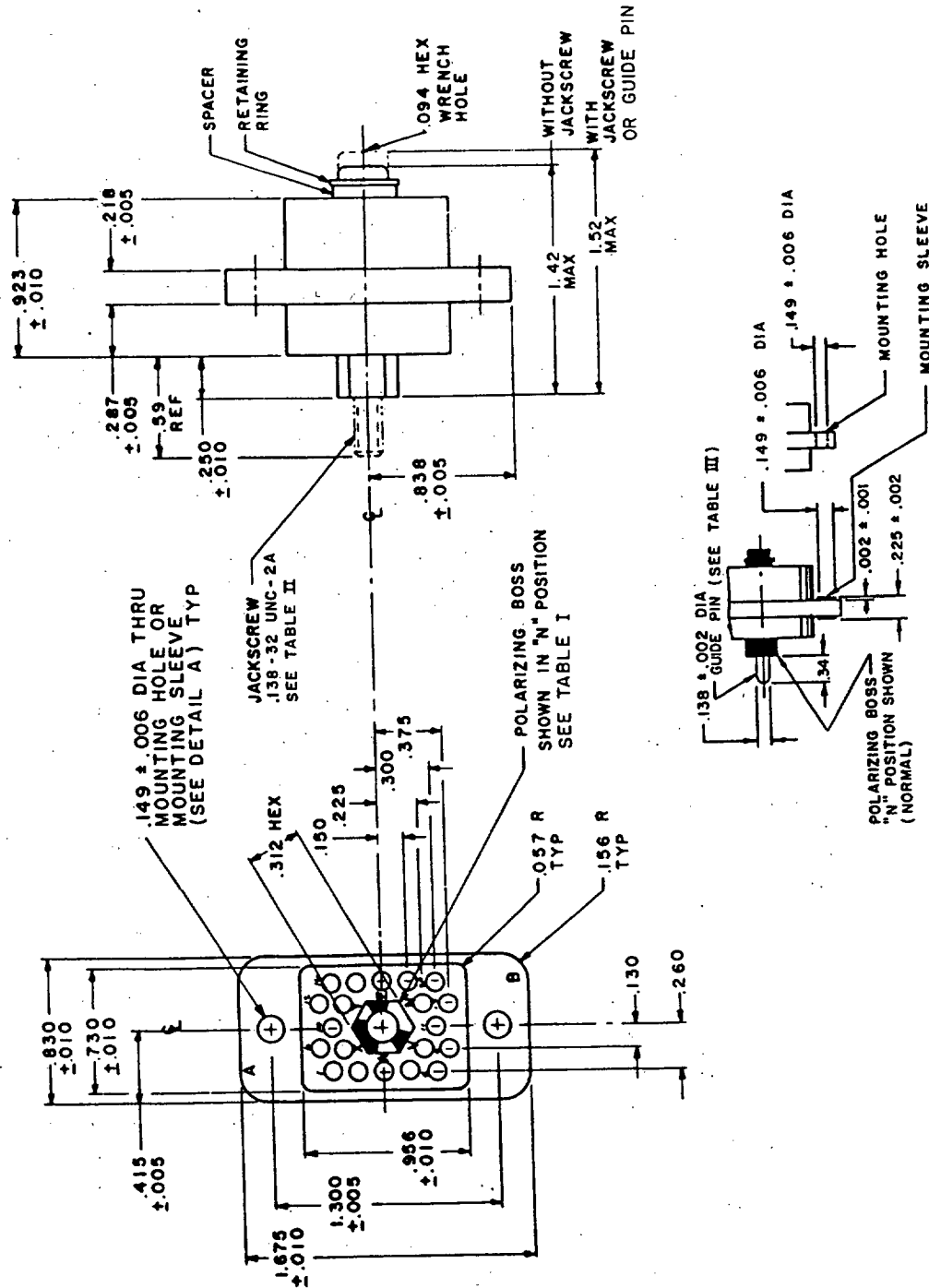


User activities: Army ME, AV, WC
Navy MC
Air Force

Reviewer activities: Army MI, MU, AT
Navy AS, SH, OS
Air Force 11, 80
DSA - ES

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.



DETAIL A

Design standard for use with MIL-C-28748/10

© Entire standard revised

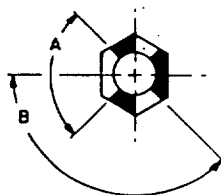
| | | | |
|--|-------------------------|--|-------------------|
| P.A. Navy - EC | International Interest: | TITLE INSERT (INSULATOR), RECTANGULAR CONNECTOR, POLARIZED CENTER SCREW-LOCK, ELECTRICAL, 20 (SIZE 16 CRIMP REMOVABLE) SOCKET CONTACTS | MILITARY STANDARD |
| Other Cust AF - 85 Army - EL | | | MS 18158 |
| Procurement Specification MIL-C-28748 | | SUPERSEDES: | SHEET 1 OF 3 |

DD FORM 672 (Coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.
1 SEP 63

5935-2004-8

APPROVED 20 Dec 1965 REVISED (A) 29 Jul 1968 (B) 20 May 1970 (C) 8 July 1976

FED. SUP CLASS
5935

FED. SUP CLASS
5935TYPE
SEE TABLE I

| TABLE I | | |
|---------|-----|---------|
| TYPE | A | B |
| 1 | 90° | 135° |
| 2 | 85° | 137°30' |

TABLE II

| MS PART NUMBER | POLARIZATION * | JACKSCREW |
|----------------|----------------|---|
| MS 18158-1N | N (TYPE 1) | SUPPLIED WITH CONNECTOR |
| MS 18158-1V | V (TYPE 1) | |
| MS 18158-1W | W (TYPE 1) | |
| MS 18158-1X | X (TYPE 2) | |
| MS 18158-1Y | Y (TYPE 2) | |
| MS 18158-1Z | Z (TYPE 2) | |
| MS 18158-2N | N (TYPE 1) | NOT SUPPLIED WITH CONNECTOR POLARIZING BOSS THREADED INTERNALLY .138-32 UNC - 2B |
| MS 18158-2V | V (TYPE 1) | |
| MS 18158-2W | W (TYPE 1) | |
| MS 18158-2X | X (TYPE 2) | |
| MS 18158-2Y | Y (TYPE 2) | |
| MS 18158-2Z | Z (TYPE 2) | |

TABLE III

| MS PART NUMBER | POLARIZATION * | GUIDE PIN |
|----------------|----------------|--|
| MS 18158-3N | N (TYPE 1) | SUPPLIED WITH CONNECTOR |
| MS 18158-3V | V (TYPE 1) | |
| MS 18158-3W | W (TYPE 1) | |
| MS 18158-3X | X (TYPE 2) | |
| MS 18158-3Y | Y (TYPE 2) | |
| MS 18158-3Z | Z (TYPE 2) | |
| MS 18158-4N | N (TYPE 1) | NOT SUPPLIED WITH CONNECTOR POLARIZING BOSS WITH .144 ± .002 I.D. TO ACCEPT GUIDE PIN |
| MS 18158-4V | V (TYPE 1) | |
| MS 18158-4W | W (TYPE 1) | |
| MS 18158-4X | X (TYPE 2) | |
| MS 18158-4Y | Y (TYPE 2) | |
| MS 18158-4Z | Z (TYPE 2) | |

* LARGE OPENING IN POLARIZATION BOSS MUST BE ADJACENT TO
POLARIZATION LETTER ON CONNECTOR BODY.

| | | | |
|--|----------------------------|--|-------------------|
| P.A Navy - EC | International interest: | TITLE INSERT (INSULATOR), RECTANGULAR CONNECTOR, POLARIZED CENTER SCREW- LOCK, ELECTRICAL, 20 (SIZE 16 CRIMP REMOVABLE) SOCKET CONTACTS | MILITARY STANDARD |
| Other Cust AF - 85 Army - EL | | | MS 18158 |
| Procurement Specification MIL-C-28748 | | SUPERSEDES: | SHEET 2 OF 3 |

DD FORM 1 SEP 63 672 (Coordinated) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

5935-2004-8

User activities: Army, ME, AV, WC
Navy, MC
Air Force

Reviewer activities: Army, MI, MU, AT
Navy, AS, SH, OS
Air Force, 11, 80
DSA-ES

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APPROVED 20 Dec 1965 REVISED © For changes see sheets 1, 2 and 3

FED. SUP CLASS
5935

User activities: Army, ME, AV, WC

Navy, MC
Air ForceReviewer activities: Army, MI, MU, AT,
Navy, AS, SH, OS
Air Force 11, 80
DSA-ES

| INCHES | MM | INCHES | MM |
|--------|------|--------|-------|
| .001 | .03 | .287 | 7.29 |
| .002 | .05 | .300 | 7.62 |
| .005 | .13 | .312 | 7.92 |
| .006 | .15 | .340 | 8.64 |
| .010 | .25 | .375 | 9.53 |
| .057 | 1.45 | .415 | 10.54 |
| .094 | 2.39 | .590 | 14.99 |
| .130 | 3.30 | .730 | 18.54 |
| .138 | 3.51 | .830 | 21.08 |
| .149 | 3.78 | .838 | 21.29 |
| .150 | 3.81 | .923 | 23.44 |
| .156 | 3.96 | .956 | 24.28 |
| .218 | 5.54 | 1.300 | 33.02 |
| .225 | 5.72 | 1.420 | 36.07 |
| .250 | 6.35 | 1.520 | 38.61 |
| .260 | 6.60 | 1.675 | 42.55 |

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is $\pm .015$ (.38 mm).
3. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
4. Tolerance between any two adjacent contact centers shall be $\pm .004$ (.10 mm). Tolerance between any two contact centers, other than adjacent contacts, shall be $\pm .006$ (.15 mm).
5. Contact hole details shall be in accordance with MIL-C-28748.
6. For mating connector see MS18157 (pin body).
7. Dimensions symmetrical about centerlines.
8. For design feature purposes, this standard takes precedence over procurement documents referenced herein.
9. Reference documents shall be of the issue in effect on date of invitation for bid.
10. Insert material shall be in accordance with MIL-C-28748.
11. Flatness, squareness and parallelism shall be within dimensional tolerances.
12. Center polarizing hardware may be rotated by removing retaining ring and spacer or removing cap (left hand thread) at rear of insert.
13. Maximum insertion and withdrawal force (connector assembly) shall be 18 pounds.
14. Maximum torque required at jackscrew to properly engage or disengage connector shall be 2 inch pounds.
15. Jackscrew wrench size 3/32 hex.

REVISED © For changes see sheets 1, 2 and 3

APPROVED 20 Dec 1965

| | | | |
|--|-------------------------|--|-------------------|
| P.A. Navy - EC | International interest: | TITLE INSERT (INSULATOR), RECTANGULAR CONNECTOR, POLARIZED CENTER SCREW-LOCK, ELECTRICAL, 20 (SIZE 16 CRIMP REMOVABLE) SOCKET CONTACTS | MILITARY STANDARD |
| Other Cust: AF - 85 Army - EL | | | MS 18158 |
| Procurement Specification MIL-C-28748 | SUPERSEDES: | | SHEET 3 OF 3 |