

INCH-POUND

MIL-DTL-55302/70D  
w/AMENDMENT 1  
26 July 2010  
SUPERSEDING  
MIL-DTL-55302/70D  
12 November 2004

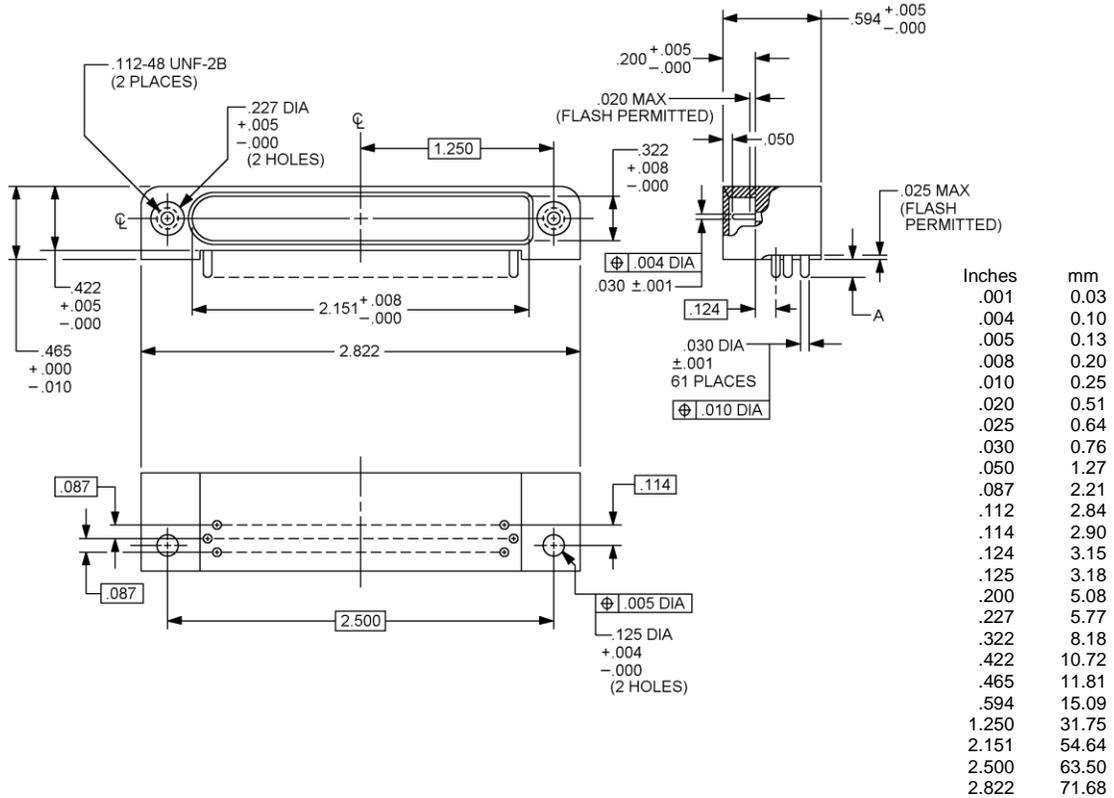
DETAIL SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES,  
PIN, RIGHT ANGLE PLUG, ELECTRICAL, POLARIZED FOR  
PRINTED WIRING BOARDS (.100 SPACING)

Inactive for new design after 1 October 1986.

This specification is approved for used by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-55302.

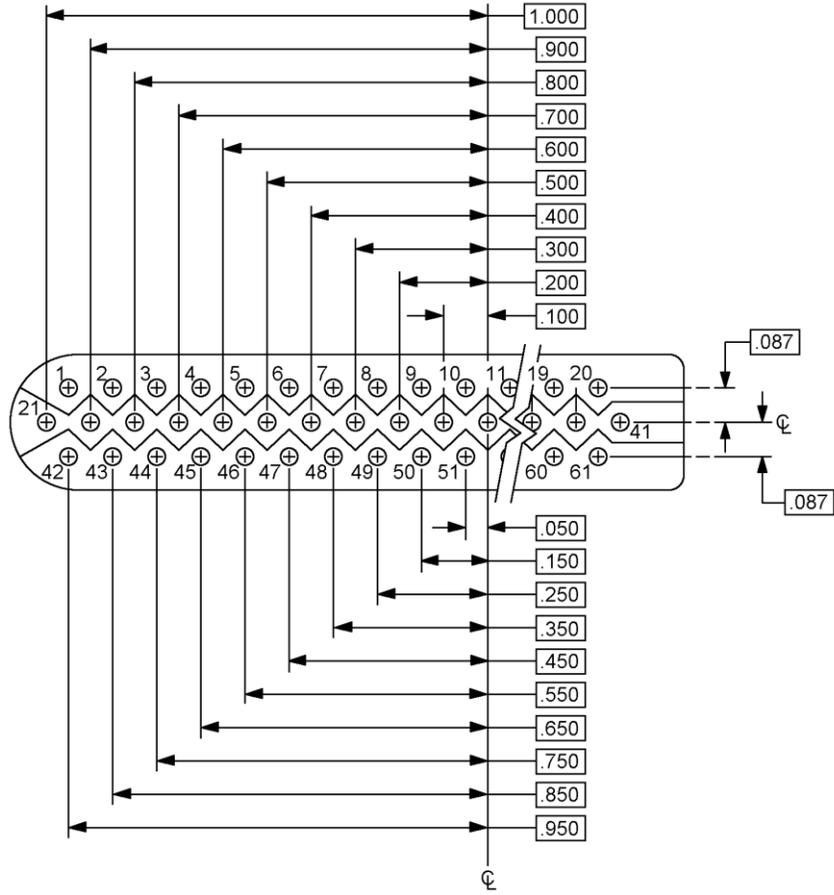


NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Nominal spacing between any two adjacent pin contacts shall be  $.090 \pm .003$  ( $2.29 \pm .08$  mm).
4. Unless otherwise specified, tolerances are  $\pm .010$  (0.25 mm).
5. For dimension A see table I.

FIGURE 1. Connectors, plug, .100 (2.54 mm) contact spacing pin terminal.

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| Inches | mm    | Inches | mm    |
|--------|-------|--------|-------|
| .050   | 1.27  | .550   | 13.97 |
| .087   | 2.21  | .600   | 15.24 |
| .100   | 2.54  | .650   | 16.51 |
| .150   | 3.81  | .700   | 17.78 |
| .200   | 5.08  | .750   | 19.05 |
| .250   | 6.35  | .800   | 20.32 |
| .300   | 7.62  | .850   | 21.59 |
| .350   | 8.89  | .900   | 22.86 |
| .400   | 10.16 | .950   | 24.13 |
| .450   | 11.43 | 1.000  | 25.40 |
| .500   | 12.70 |        |       |

NOTE: Contacts 1, 20 and 61 are identified on the front face of the connector per the insert arrangement.

FIGURE 2. Insert arrangement for .100 (2.54 mm) contact spacing connector (male engaging face).

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Requirements:

Dimensions and configuration: See figure 1 and table I.

Material: In accordance with MIL-DTL-55302, except:

Body: reinforced epoxy resin or equivalent.

Bushing: SAE-AMS-5640 stainless steel or SAE-AMS-S-7720, composition 303, condition A.

Plating: The contact plating shall be gold in accordance with ASTM B488, type II, code C, class 1.27 over 100 microinches of copper in accordance with SAE-AMS2418.

Contact identification: Contact locations are identified numerically as shown on figure 2.

Mating and unmating: The maximum mating force, in pounds, shall be 0.5 times the number of contacts, and the withdrawal force, in pounds, shall be a minimum of 0.08 times the number of contacts and shall not exceed the measured insertion force.

Contact resistance: With a test current of 3 A dc, the average resistance of all contact pairs measured shall not exceed 0.010 ohm, and no individual contact pair shall have a resistance exceeding 0.020 ohm.

Dielectric withstanding voltage:

Sea level: 1,300 volts rms, 60 Hz, ac.

High altitude: 325 volts rms, 60 Hz, ac.

Current rating: 3.0 amperes.

Insert arrangement: See figure 2.

Mating connectors: See MIL-DTL-55302/71.

Part or Identifying Number (PIN): M55302/70-(dash number from table I).

TABLE I. Dash number and dimensions.

| Dash number | Dimension <u>1</u> /<br>A       |
|-------------|---------------------------------|
| 01          | .114<br>(2.90)                  |
| 02          | .180 +.015 -.000<br>(4.57 +.38) |

1/ Metric equivalents are given for information only.  
Millimeters are in parentheses.

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Amendment notations. The margins of this specification are marked with vertical lines to indicate where modifications from this amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. In addition to MIL-DTL-55302, this document references the following:

MIL-DTL-55302/71  
ASTM B488  
SAE-AMS2418  
SAE-AMS-5640  
SAE-AMS-S-7720

CONCLUDING MATERIAL

Custodians:  
Air Force - 85  
DLA - CC

Preparing activity:  
DLA -CC

(Project 5935-2010-105)

Review activity:  
Air Force - 19

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>.