

MIL-DTL-55302/20E
w/AMENDMENT 1

Inches	mm	Inches	mm	Inches	mm
.004	0.10	.0625	1.588	.175	4.45
.005	0.13	.065	1.65	.200	5.08
.007	0.18	.079	2.01	.301	7.65
.012	0.30	.084	2.13	.303	7.70
.026	0.66	.100	2.54	.323	8.20
.028	0.71	.120	3.05	.325	8.26
.039	0.99	.136	3.45	2.850	72.39
.044	1.12	.150	3.81	3.000	76.20
.050	1.27	.152	3.86	3.200	81.28
.055	1.40	.154	3.91	3.350	85.09
.0615	1.562	.160	4.06		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ± 0.005 (0.13 mm).
4. These connectors mate with connectors specified in MIL-DTL-55302/19 and are primarily for use with single-sided, double-sided, or multilayered printed wiring board.
5. Positional tolerances of guide pins shall apply at datum plane X.
6. Pad(s) suitable for printed circuit boards support are optional. Dimensions and location(s) are optional.

FIGURE 1. Connectors, receptacle (.100 spacing) - Continued.

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REQUIREMENTS:

Design and construction:

Dimensions and configuration: See figure 1.

Material:

Guide sockets and guide bushings: Brass C21000, as specified in ASTM B134/B134M, or FC brass as specified in ASTM B16/B16M.

Plating:

Guide sockets and guide bushings: Gold over copper, type II, class 1.27, code C, as specified in ASTM B488.

Contact:

Gold in accordance with ASTM B488, type II, code C, class 1.27, over nickel-plating in accordance with SAE AMS-QQ-N-290, class 2, 50 to 150 microinches.

Contact identification: Shall be numerical and sequential in the pattern indicated.

Pin size: 23

Wire size: 22

Current rating: 5 amperes, maximum.

Mating and unmating:

The maximum insertion force, in pounds, shall not exceed a value equal to .5 times the number of contacts.

Contact engagement and separation force:

The individual contact withdrawal force shall be .5-ounce minimum when tested with a minimum diameter test pin in accordance with Part or Identifying Number (PIN) MS31971-23X1.

Contact resistance:

The average resistance of all contact pairs measured shall not exceed .010 ohm, and no individual contact pair shall have a resistance exceeding .020 ohm.

Dielectric withstanding voltage:

Sea level: 1,000 volts rms, 60 Hz, AC.

High altitude: 500 volts rms, 60 Hz, AC.

PIN: M55302/20-01.

Qualification: Qualification is not required for this specification sheet.

First article testing (FAT): FAT shall be in accordance with MIL-DTL-55302, qualification inspection.

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

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

MIL-DTL-55302/19
ASTM B16/B16M
ASTM B134/B134M
ASTM B488
SAE AMS-QQ-N-290

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2012-129)

Review activities:

Army - AT, AV, CR4, MI
Navy - AS, MC, OS, SH
Air Force - 19, 99

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.dla.mil>.