MILITARY SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES, SOCKET, STRAIGHT-THRU, POLARIZED FOR MULTILAYERED PRINTED WIRING BOARDS (.100 SPACING)

Ⓒ This specification inactive for new design after 1 October 1986

This specification is approved for use within the Department of the Air Force and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the connector described herein shall consist of this specification and the latest issue of MIL-C-55302.

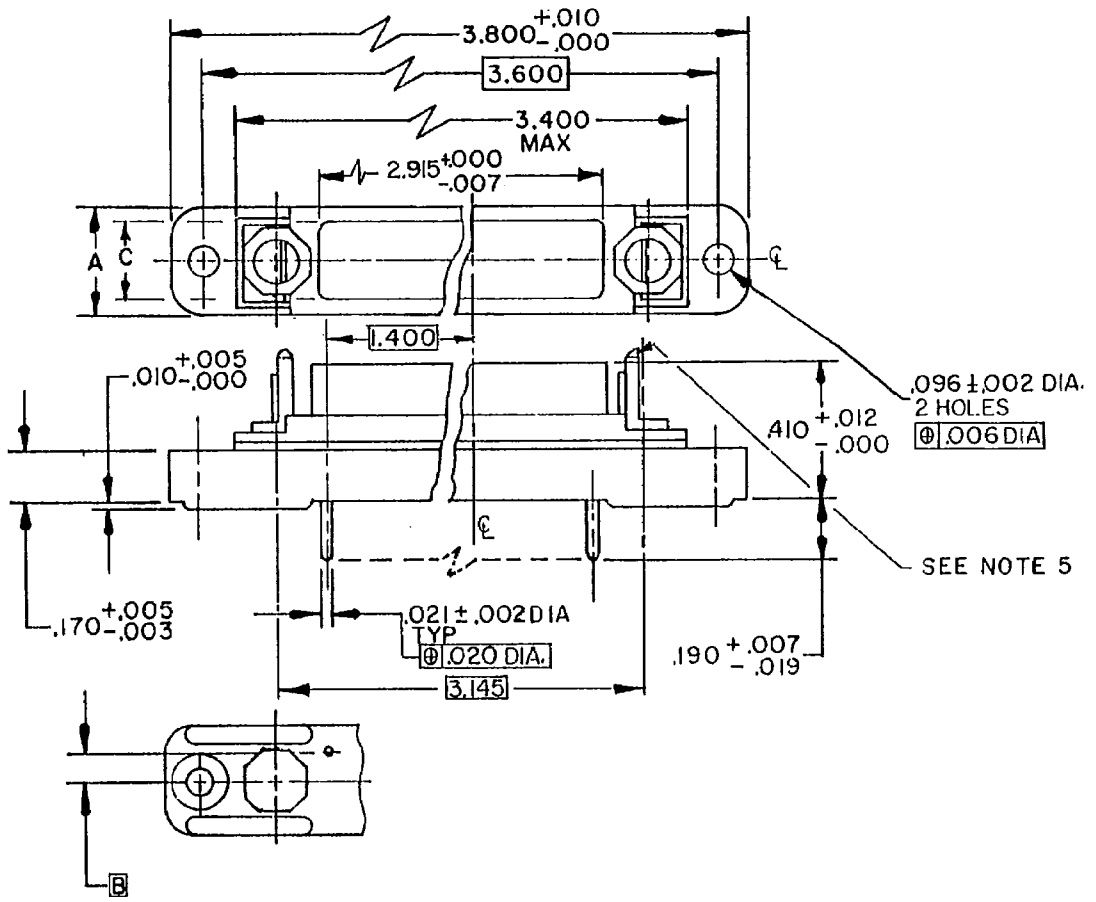

FIGURE 1. Connector, socket, straight-thru, for multilayered printing wiring boards .100 (2.54 mm) spacing.

Ⓒ denotes changes

Inches	mm	Inches	mm
.001	0.03	.096	2.44
.002	0.05	.170	4.32
.003	0.08	.190	4.83
.005	0.13	.410	10.41
.006	0.15	1.400	35.56
.007	0.18	2.915	74.04
.010	0.25	3.145	79.88
.012	0.30	3.400	86.36
.019	0.48	3.600	91.44
.020	0.51	3.800	96.52

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.010 (.25 mm).
4. These connectors mate with connectors specified in MIL-C-55302/77 and are primarily for use with single sided, double-sided, or multilayered printed wiring boards. When mated, connectors will allow .010 min. total diametrical float between mating dielectric surfaces.
5. Mating connectors provide a total of 64 different polarization positions. Polarization components conforming to MIL-C-55302/78-04 are supplied uninstalled with the connector.
6. For dimensions A thru C, see table II.
7. All contacts are on .100 spacing between contacts and between contact rows, square grid, 29 contacts in a row.

FIGURE 1. Connector, socket, straight-thru, for multilayered printing wiring boards .100 (2.54 mm) spacing -Continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1 and table II.

Material: In accordance with MIL-C-55302.

© Plating: The contact plating shall be gold in accordance with MIL-G-45024, type II, class 1, grade C over copper in accordance with MIL-C-14550, class 4.

Contact identification: Numerals shall be molded as follows, front face: End of contact rows, 1, 29, 30, 58 on -01 and 1, 29, 59, 87 on -02. Rear of conector: End of contact rows, 1, 29, 30, 58 on -01 and 1, 29, 58, 59, 87 on -02.

Mating and unmating: The maximum insertion force, in pounds, shall not exceed a value equal to 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 engagement and separation forces: When tested as specified herein, the engaging and separation forces shall be within the applicable limits specified in table I. Cylindrical steel or tungsten carbide test pins having spherical tips and a surface finish not exceding 3 microinches roughness for steel pins or 10 microinches for tungsten carbide pins, shall be engaged with and separated from the socket contacts. The forces necessary to insert the maximum diameter pin and withdraw the minimum diameter pin shall be measured and shall meet the requirements specified in table I. The depth of insertion shall be not less than 0.205 inch measured from the face of the insert or 0.140 inch measured from the end of the socket body, but the pins shall not bottom in the socket.

TABLE I. Engaging and separating forces.

Mating end size	Engaging test pin diameter in inches	Maximum engagement force (ounces)	Separating test pin diameter in inches	Minimum separation force (ounces)
22	0.0305 $^{+0.0002}_{-0.0000}$	12	0.0295 $^{+0.0000}_{-0.0002}$	0.75

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.

Oversize pin: The connectors shall exclude a .052 minimum diameter pin.

Dielectric withstanding voltage:

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

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

Socket size: 22.

Contact current rating: 3 amperes maximum.

Mating connectors: See MIL-C-55302/77.

Part number: M55302/76-(dash number from table II).

TABLE II. Dash number and dimensions.

Dash number	No. of contacts	Dimensions 1/			Weight lbs. max
		A Max	B	C +.005(.13) -.000	
01	58	.350 (8.89)	.050 (1.27)	.240 (6.10)	.033
02	87	.450 (11.43)	.100 (2.54)	.340 (8.64)	.043

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

Custodian:
Air Force - 17

Review activities:
Air Force - 11, 17, 85
DLA - ES

User activity:
Air Force - 19

Preparing activity:
Air Force - 17

Agent:
DLA - ES

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