MILITARY SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES, RECEPTACLE, SOCKET CONTACTS, 122 AND 152 POSITION PRINTED WIRING BOARDS (.075 INCH SPACING)

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

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

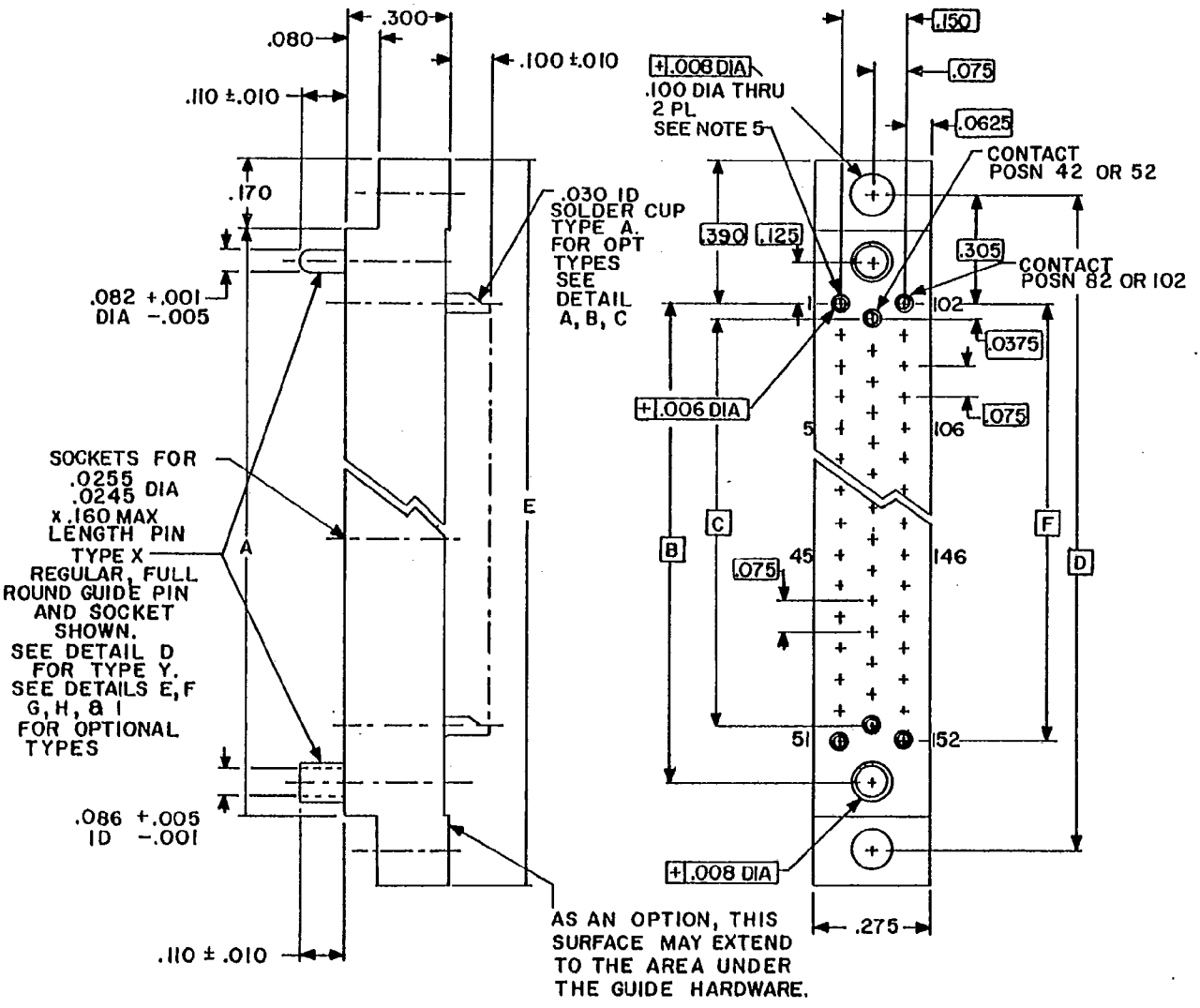
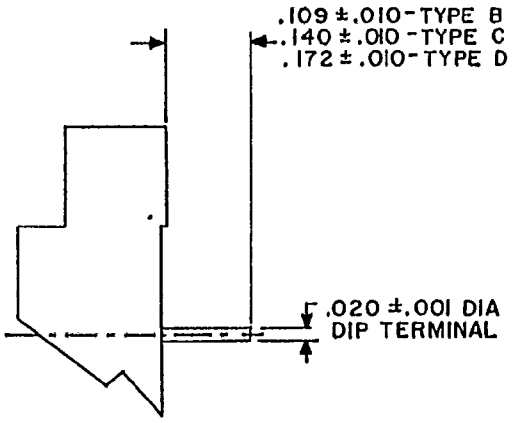
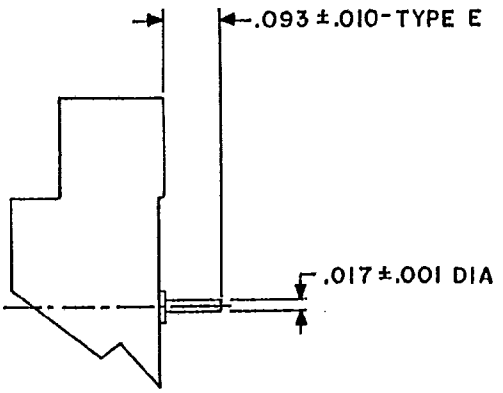


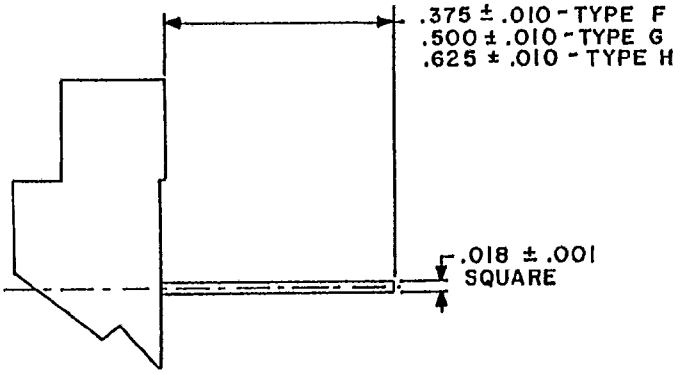
FIGURE 1. Connector, receptacle .075 (1.91 mm) spacing.



DIP TERMINAL
DETAIL A

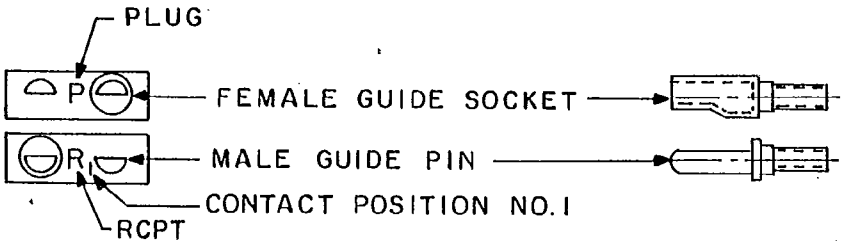


FLEXIBLE CIRCUIT TERMINAL
DETAIL B

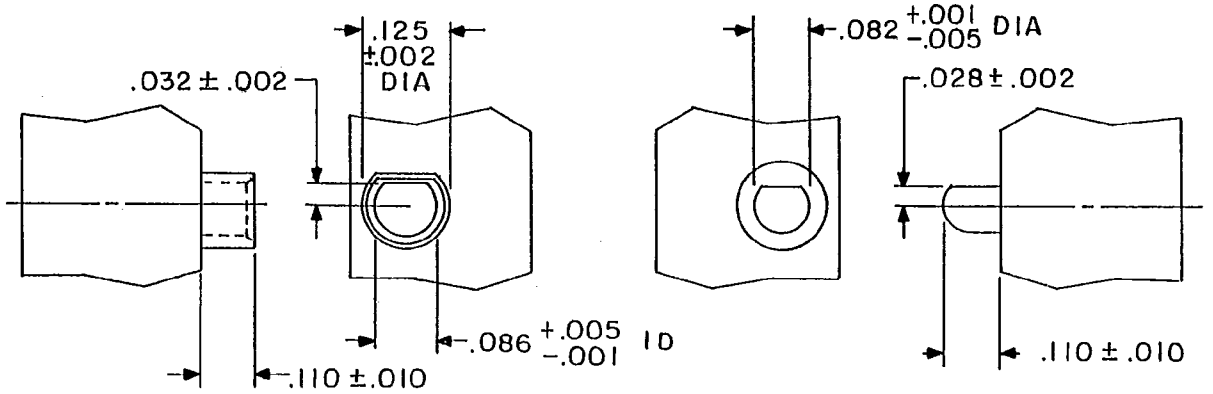


WIRE WRAP TERMINAL
DETAIL C

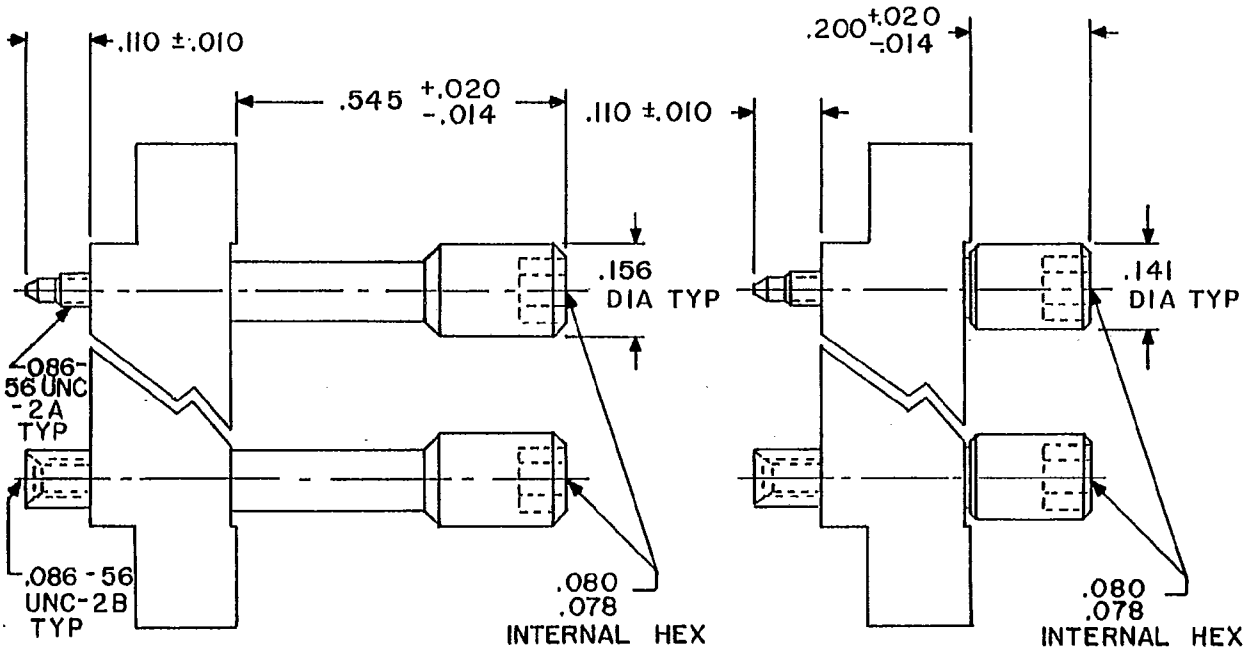
FIGURE 1. Connector, receptacle .075 (1.91 mm) spacing - Continued.



CONNECTOR POLARIZATION WITH D SHAPED GUIDE PINS AND SOCKETS (TYPE Y)



DETAIL D POLARIZATION PINS/SOCKETS.



TYPE N TURNING HEX JACKSET

DETAIL E

TYPE S SHORT TURNING HEX JACKSET

DETAIL F

FIGURE 1. Connector, receptacle .075 (1.91 mm) spacing - Continued.

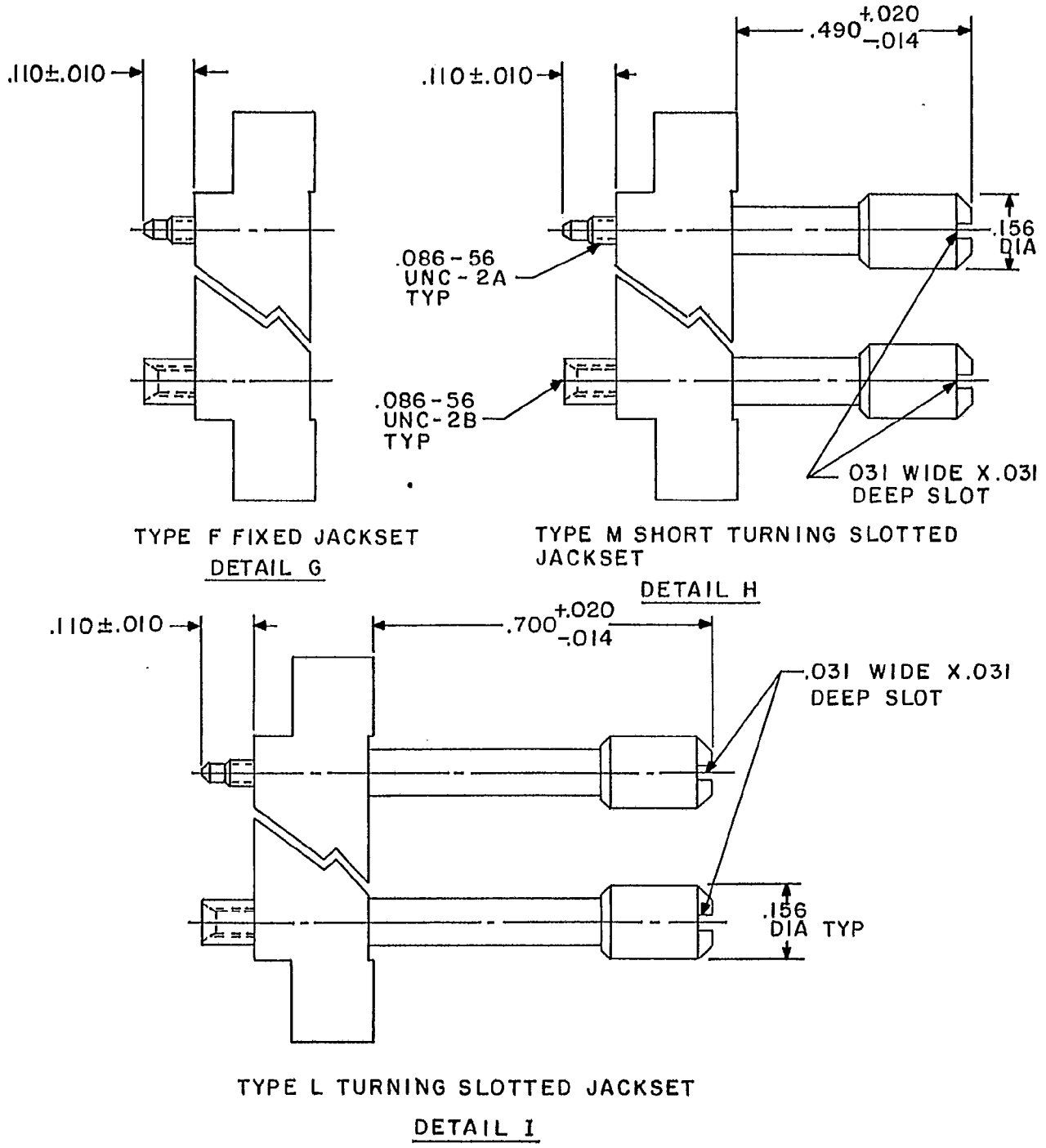


FIGURE 1. Connector, receptacle .075 (1.91 mm) spacing - Continued.

Number of contacts	Dimensions					
	A ±.010	BSC B	BSC C	BSC D	E ±.010	BSC F
122	3.440 (87.38)	3.125 (79.38)	2.925 (74.30)	3.610 (91.69)	3.780 (96.01)	3.000 (76.20)
152	4.190 (106.43)	3.875 (98.43)	3.675 (93.35)	4.360 (110.74)	4.530 (115.06)	3.750 (95.25)

NOTES:
1. Dimensions are in inches.
2. Metric equivalents, in parentheses, are given for general information only.
3. Unless otherwise specified, tolerance is ±.005 (0.13 mm).
4. These connectors mate with connectors specified in MIL-C-55302/193 using appropriate hardware.
5. Numbers indicating the first and last position in each row and every fourth contact position in between shall be marked on the side(s) of the connector. As an option to the above, numbers indicating every fourth cavity may be stamped on the side of the connector, with the exception that the number one contact shall be marked.

Inches	mm
.001	0.03
.002	0.05
.005	0.13
.006	0.15
.008	0.20
.010	0.25
.014	0.36
.017	0.43
.018	0.46
.020	0.51
.0245	0.622
.0255	0.647
.028	0.71
.030	0.76
.031	0.79
.032	0.81
.0375	0.952
.0625	1.587
.075	1.90
.078	1.91
.080	2.03
.082	2.08
.086	2.18
.093	2.36
.100	2.54
.109	2.77
.110	2.79
.125	3.18
.140	3.56
.141	3.58
.150	3.81
.156	3.96
.160	4.06
.170	4.32
.172	4.37
.200	5.08
.275	6.98
.300	7.62
.305	7.75
.375	9.52
.390	9.91
.490	12.45
.500	12.70
.545	13.84
.625	15.88
.700	17.78

FIGURE 1. Connector, plug .075 (1.91 mm) spacing - Continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Material: Guide pins, type X guide sockets, jackscrews, and jacksockets shall be made of corrosion resisting stainless steel in accordance with ASTM-A581 or ASTM-A582, passivated in accordance with QQ-P-35, or shall be corrosion resistant copper nickel alloy (61 ±2 percent copper, 25 ±2 percent nickel, 2.5 percent maximum other, and the balance zinc) and shall have a Brinell hardness of 145 to 175. Type Y guide sockets shall be beryllium copper in accordance with QQ-C-550, nickel plated in accordance with QQ-N-290, class 02, 50 to 150 microinches.

Plating: The contact plating shall be in accordance with MIL-C-55302, or gold in accordance with MIL-G-45204, type II, grade C, class 1, over nickel plating in accordance with QQ-N-290, class 02, 50 to 150 microinches in the engaging area and gold in accordance with MIL-G-45204, type II, grade C, class 00, or type III, grade A, class 00, over nickel plating in accordance with QQ-N-290, class 02, 50 to 150 microinches in the termination area.

Contact identification: See figure 1.

Oversize pin exclusion: In accordance with MIL-C-55302, except that the test for contact size number 23 shall be performed.

Contact engagement and separation forces (number 24 contacts):

Minimum separation: 0.5 ounce with 0.0245 inch diameter test pin; reference MS3197-24X1.

Maximum engagement: 4.0 ounces with 0.0255 inch diameter test pin; reference MS3197-24Y1.

Mating and unmating:

Low insertion force contacts: The maximum mating force, in pounds, shall be the number of contacts multiplied by 0.25 and the withdrawal force, in pounds, shall be a minimum of 0.04 times the number of contacts and shall not exceed the measured insertion force.

Contact resistance: The average contact resistance of all contacts measured shall not exceed 0.007 ohm, and no individual contact pair shall have a resistance exceeding 0.015 ohm.

Dielectric withstanding voltage:

Sea level: 750 volts rms.

High altitude: 250 volts rms at 70,000 feet.

Current rating: 3.0 amperes maximum per contact.

Polarization: Type X, regular, guide pin and socket, full round (see figure 1). Type Y, adjustable "D" shaped guide pin and socket (see figure 1, details A and B). All connectors are supplied in the -1 polarized position. For other than OEM use, connectors may be repolarized by using M55302/57-01 spanner wrench and M55302/190-01 guide pin and guide socket kit. When guides are removed and reinstalled in another position, apply Loctite 83-CV or equivalent to the threads. Ordering connectors in other than the -1 polarized position may be done by the OEM's by placing the desired polarized position in brackets three spaces after the part number on the purchase order. Example: M55302/57-A10Y [-32]. Polarization pins and sockets shall be adjusted to any desired configuration by spanner wrench (M55302/57-01). Ordering connectors in the -1 polarized position without Loctite 83-CV or equivalent applied may be done by placing a "-0" in brackets three spaces after the part number on the purchase order. Guide sets, as installed, shall withstand 7 ounce-inches backoff torque applied through the guide set mounting nut.

M55302/190-01 kit: Consists of one type Y "D" shaped guide socket and one type Y "D" shaped guide pin.

Example of part number:

M55302/192	L	A	152	X

Basic number of specification sheet

Type of contacts

L = low insertion force contacts

Type of terminals (see figure 1)

A = solder cup
B = dip terminal .109 long
C = dip terminal .140 long
D = dip terminal .172 long
E = .093 flexible circuit
F = wire wrap .375 long
G = wire wrap .500 long
H = wire wrap .625 long

Number of contacts (see figure 1)

Type of mounting hardware (see figure 1)

Type X = full round
Type Y = "D" shaped
Type F = fixed jackset
Type S = short turning hex jackset
Type N = turning hex jackset
Type L = turning slotted jackset
Type M = short turning slotted jackset

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 17

Review activities:
Army - AR, MI
Navy - AS, OS, SH
Air Force - 85, 99

User activities:
Army - AT, AV, ME
Navy - MC
Air Force - 11, 19, 80

Preparing activity:
Army - CR

Agent:
DLA - ES

(Project 5935-3593-10)