INCH-POUND

MIL-C-55302/38B(AT)
8 June 1990
SUPERSEDING
MIL-C-55302/38A
1 February 1973

MILITARY SPECIFICATION SHEET

CONNECTORS, PRINTED CIRCUIT SUBASSEMBLY AND ACCESSORIES: PLUG, ELECTRICAL, POLARIZED SHELLL, MALE, 0.100 INCH CONTACT SPACING, PIN TERMINAL

This specification is approved for use by U.S. Army Tank-Automotive Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

The complete requirements for procuring the connector described herein shall consist of this document and the latest issue of Specification MIL-C-55302

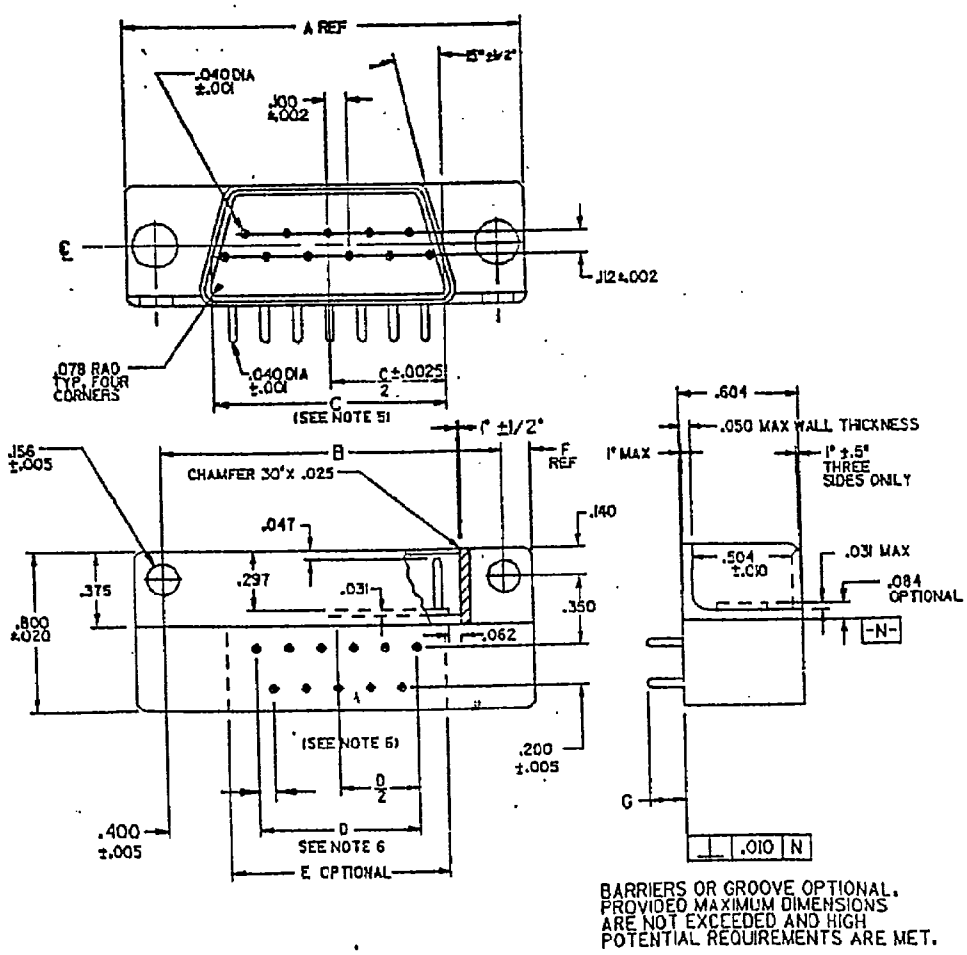

FIGURE 1. Connector, plug, male, .100 contact spacing, pin terminal.

FSC 5935

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited

INCHES	MM
.001	.03
.002	.05
.0025	.06
.005	.13
.010	.25
.020	.51
.025	.61
.031	.79
.040	1.02
.047	1.19
.050	1.27
.062	1.57
.078	1.98
.084	2.13
.100	2.54
.112	2.84
.140	3.56
.156	3.96
.200	5.08
.297	7.54
.350	8.89
.375	9.53
.504	12.80
.604	15.34
.800	20.32

NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerance is ± .015 (.38 mm).
4. Break all sharp edges .005 (.13 mm) minimum.
5. C dimension is measured at the top of the draft angle at the base of the chamfer, at center line of shell.
6. Nominal spacing between any two adjacent contacts shall be .100 ± .002 (2.54 ± .05 mm); overall tolerance between any span of 23 to 28 contacts shall be ±.004 (.10 mm), overall tolerance between any span of 29 through 35 contacts shall be ±.005 (.13 mm).
7. For dimensions A through G, see table I.
8. Detail contour of insert beyond shell optional, provided maximum dimensions are not exceeded.
9. No. 6 fillister head machine screw (MS35265, MS35273, MS35275 or equivalent) recommended for mounting.

FIGURE 1. Connector, plug, male, .100 contact spacing, pin terminal - continued.

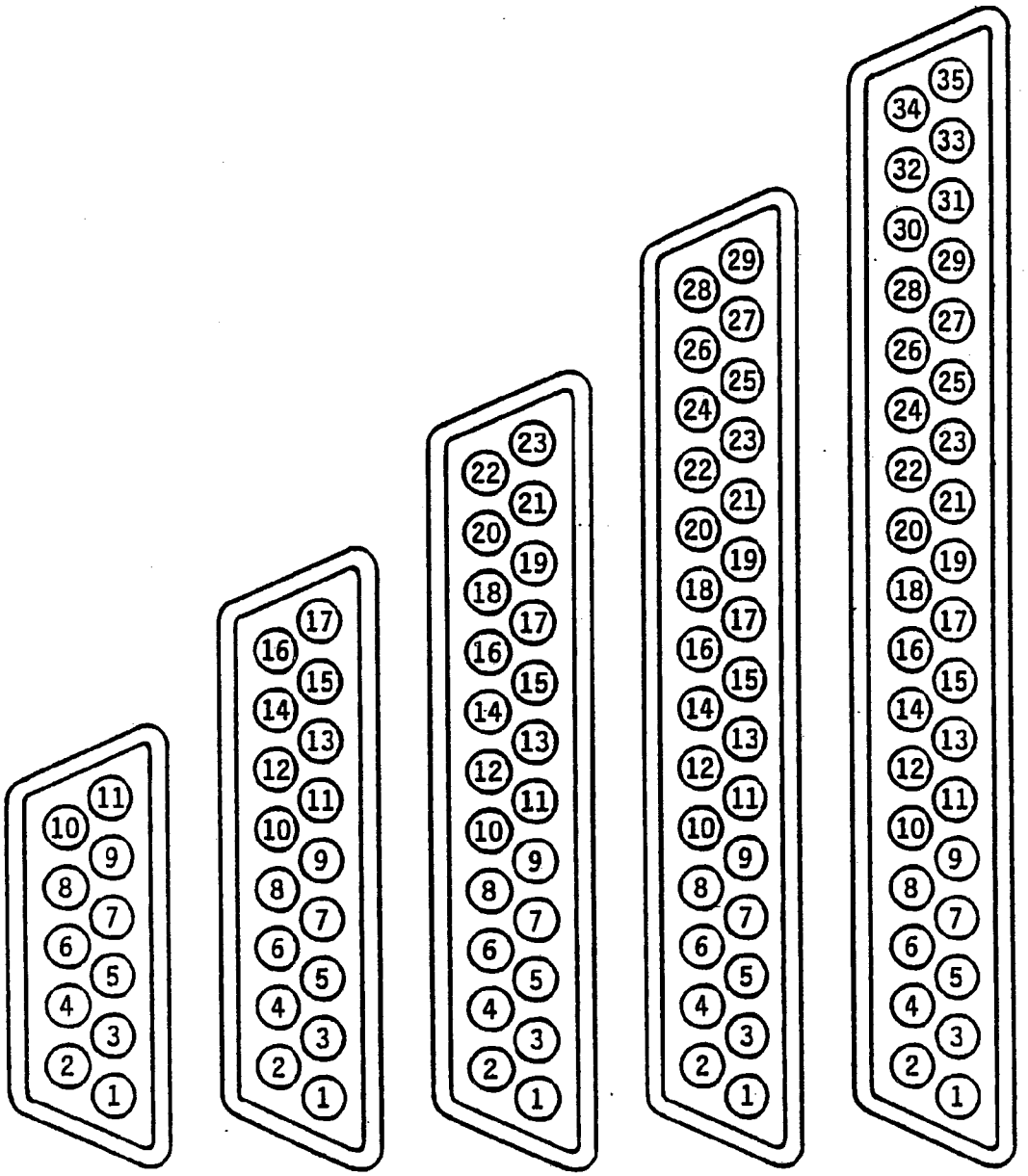

FIGURE 2. Insert arrangement for contact spacing connectors.
(Female engaging face)

TABLE I. Part number, dimensions and characteristics.

Part number	Dimensions 1/ 2/							Characteristics		
	A	B ± .010	C ± .005	D	E(min)	F	G +.015 −.000	Number of contact	Board thickness	Contact termination
M55302/38-01	2.097 (53.26)	1.800 (45.97-45.47)	1.260 (32.13-31.88)	1.000 (25.40)	1.250 (30.61)	.149 (3.78)	.125 (3.56-3.18)	11	1/16	Pin, right angle
M55302/38-02	2.097 (53.26)	1.800 (45.97-45.47)	1.260 (32.13-31.88)	1.000 (25.40)	1.205 (30.61)	.149 (3.78)	.188 (5.16-4.78)	11	2/16	Pin, right angle
M55302/38-03	2.097 (53.26)	1.800 (45.97-45.47)	1.260 (32.13-31.88)	1.000 (25.40)	1.205 (30.61)	.149 (3.78)	.312 (8.31-7.92)	11	4/16	Pin, right angle
M55302/38-04	2.721 (69.11)	2.400 (61.21-60.71)	1.884 (47.98-47.73)	1.600 (40.64)	1.805 (45.84)	.161 (4.09)	.125 (3.56-3.18)	17	1/16	Pin, right angle
M55302/38-05	2.721 (69.11)	2.400 (61.21-60.71)	1.884 (47.98-47.73)	1.600 (40.64)	1.805 (45.85)	.161 (4.09)	.188 (5.16-4.78)	17	2/16	Pin, right angle
MS55302/38-06	2.721 (69.11)	2.400 (61.21-60.71)	1.884 (47.98-47.73)	1.600 (40.64)	1.805 (45.85)	.161 (4.09)	.312 (8.31-7.92)	17	4/16	Pin, right angle
MS55302/38-07	3.346 (84.99)	3.000 (76.45-75.95)	2.509 (63.86-63.60)	2.200 (55.88)	2.405 (61.09)	.173 (4.39)	.125 (3.56-3.18)	23	1/16	Pin, right angle
MS55302/38-08	3.346 (84.99)	3.000 (76.45-75.95)	2.509 (63.86-63.60)	2.200 (55.88)	2.405 (61.09)	.173 (4.39)	.188 (5.16-4.78)	23	2/16	Pin, right angle
MS55302/38-09	3.346 (84.99)	3.000 (76.45-75.95)	2.509 (63.86-63.60)	2.200 (55.88)	2.405 (61.09)	.173 (4.39)	.312 (8.31-7.92)	23	4/16	Pin, right angle
MS55302/38-10	3.971 (100.86)	3.600 (91.69-91.19)	3.134 (79.73-79.48)	2.800 (71.12)	3.005 (76.33)	.186 (4.72)	.125 (3.56-3.18)	29	1/16	Pin, right angle
MS55302/38-11	3.971 (100.86)	3.600 (91.69-91.19)	3.134 (79.73-79.48)	2.800 (71.12)	3.005 (76.33)	.186 (4.72)	.188 (5.16-4.78)	29	2/16	Pin, right angle
MS55302/38-12	3.971 (100.86)	3.600 (91.69-91.19)	3.134 (79.73-79.48)	2.800 (71.12)	3.005 (76.33)	.186 (4.72)	.312 (8.31-7.92)	29	4/16	Pin, right angle
MS55302/38-13	4.596 (116.74)	4.200 (106.93-106.43)	3.759 (95.61-95.35)	3.400 (86.36)	3.605 (91.57)	.198 (5.03)	.125 (3.56-3.18)	35	1/16	Pin, right angle
MS55302/38-14	4.596 (116.74)	4.200 (106.93-106.43)	3.759 (95.61-95.35)	3.400 (86.36)	3.605 (91.57)	.198 (5.03)	.188 (5.16-4.78)	35	2/16	Pin, right angle
MS55302/38-15	4.596 (116.74)	4.200 (106.93-106.43)	3.759 (95.61-95.35)	3.400 (86.36)	3.605 (91.57)	.198 (5.03)	.188 (8.31-7.92)	35	2/16	Pin, right angle

1/ Dimensions are in inches.
2/ Metric equivalents (to the nearest .01 mm) are given for general information only, and are based upon 1 inch - 25.4 mm.

REQUIREMENTS:

Dimensions and configuration . . . . . See figure 1 and table I.
Materials:
Trapezoidal shells . . . . . Die cast aluminum, per QQ-A-591, compositions 13, A13, 380, or A380, cadmium plated, iridescent gold color, type II, class 1 or 2, or QQ-P-416.
Contact identification . . . . . Shall be numberical and sequential, in the pattern indicated. See figure 2.
Contact plating . . . . . To conform to type II, class 2, of MIL-G-45204. Silver underplate shall not be used.
Contact resistance . . . . . 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 . . . . . 1,700 volts rms, 60 Hz. ac.
70,000 feet altitude . . . . . 565 volts rms, 60Hz. ac.
Working voltage . . . . . 500 volts rms, maximum.
Contact size . . . . . 20.
Current rating, maximum . . . . . 7.5 amperes.
Contact current rating . . . . . 5 amperes.
Insert arrangement . . . . . See figure 2.
Mating connector . . . . . See MIL-C-55302/42.
Part number . . . . . See table I.

TABLE II. Cross reference between MIL-C-23353 type number and MIL-C-55302 part number.

MIL-C-23353 type no.	MIL-C-55302 part no.
P11C16	M55302/38-01
P11C26	M55302/38-02
P11C46	M55302/38-03
P17C16	M55302/38-04
P17C26	M55302/38-05
P17C46	M55302/38-06
P23C16	M55302/38-07
P23C26	M55302/38-08
P23C46	M55302/38-09
P29C16	M55302/38-10
P29C26	M55302/38-11
P29C46	M55302/38-12
P35C16	M55302/38-13
P35C26	M55302/38-14
P35C46	M55302/38-15

Preparing activity:
Army - AT

(Project 5935-A388)