



MIL-DTL-55302/38C  
w/AMENDMENT 1

Inches	mm
.001	0.03
.002	0.05
.0025	0.06
.005	0.13
.010	0.25
.020	0.51
.025	0.64
.031	0.79
.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
.503	12.78
.604	15.34
.800	20.32

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are  $\pm 0.015$  (0.38 mm).
4. Break all sharp edges .005 (0.13 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 contacts shall be  $.100 \pm .002$  (2.54  $\pm$  0.05 mm); overall tolerance between any span of 23 to 28 contacts through 35 contacts shall be  $\pm 0.005$  (0.13 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. Number 6 fillister head machine screw recommended for mounting.

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

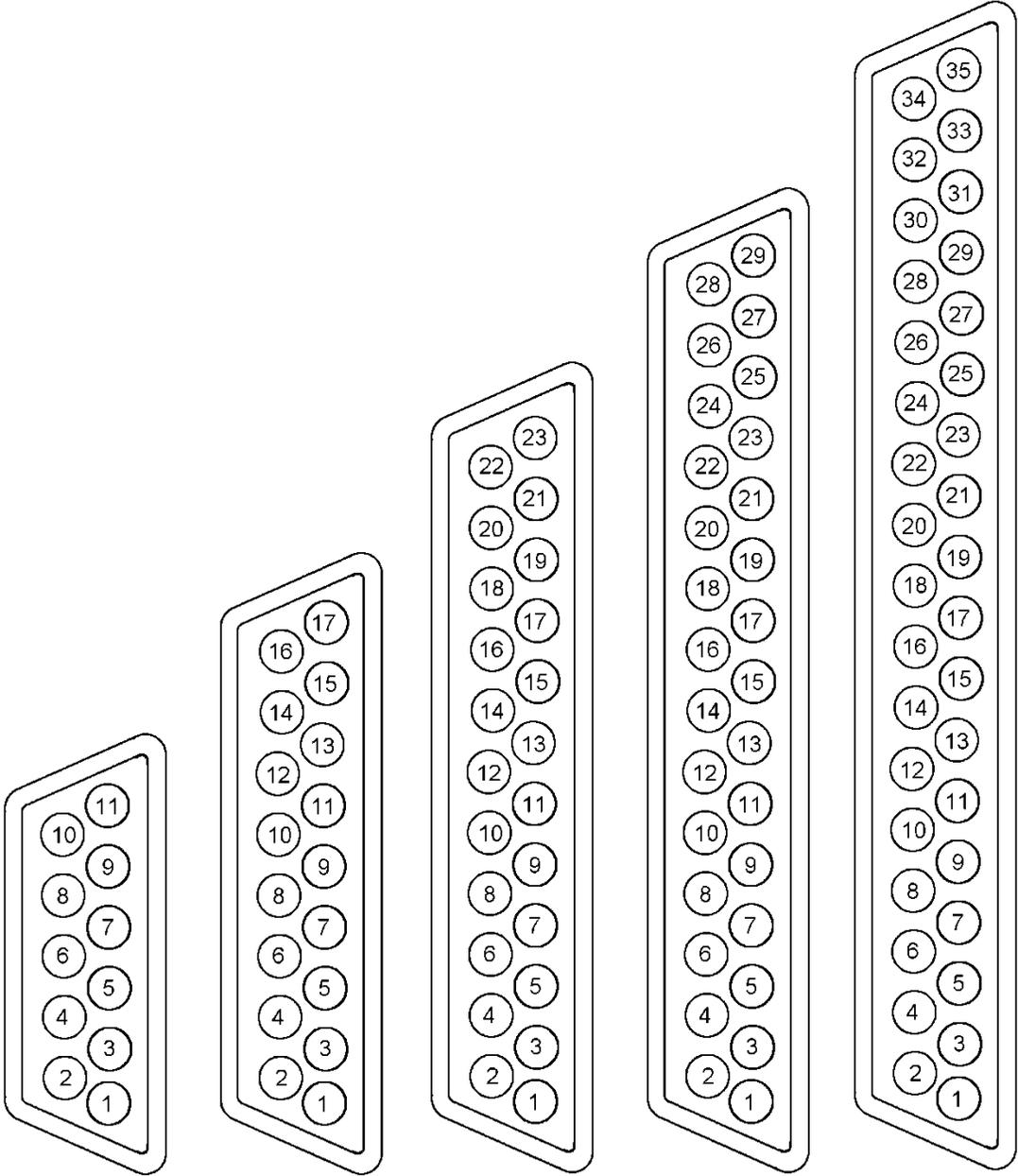


FIGURE 2. Insert arrangement for contact spacing connectors (female engaging face).

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TABLE I. Part or Identifying Number (PIN), dimensions and characteristics.

PIN	Dimensions <u>1/</u> <u>2/</u>							Characteristics		
	A	B ±.010 (0.25)	C ±.005 (0.13)	D	E min	F	G +.015 -.000 (0.38)	Number of contacts	Board thickness	Contact termination
M55302/38-01	2.097 (53.26)	1.800 (45.72)	1.260 (32.00)	1.000 (25.40)	1.250 (31.75)	.149 (3.78)	.125 (3.18)	11	.0625	Pin. right angle
M55302/38-02	2.097 (53.26)	1.800 (45.72)	1.260 (32.00)	1.000 (25.40)	1.250 (31.75)	.149 (3.78)	.125 (3.18)	11	.125	Pin. right angle
M55302/38-03	2.097 (53.26)	1.800 (45.72)	1.260 (32.00)	1.000 (25.40)	1.250 (31.75)	.149 (3.78)	.125 (3.18)	11	.25	Pin. right angle
M55302/38-04	2.721 (69.11)	2.400 (60.96)	1.884 (47.85)	1.600 (40.64)	1.805 (45.85)	.161 (4.09)	.188 (4.78)	17	.0625	Pin. right angle
M55302/38-05	2.721 (69.11)	2.400 (60.96)	1.884 (47.85)	1.600 (40.64)	1.805 (45.85)	.161 (4.09)	.188 (4.78)	17	.125	Pin. right angle
M55302/38-06	2.721 (69.11)	2.400 (60.96)	1.884 (47.85)	1.600 (40.64)	1.805 (45.85)	.161 (4.09)	.188 (4.78)	17	.25	Pin. right angle
M55302/38-07	3.346 (84.99)	3.000 (76.20)	2.509 (63.73)	2.200 (55.88)	2.405 (61.09)	.173 (4.39)	.312 (7.92)	23	.0625	Pin. right angle
M55302/38-08	3.346 (84.99)	3.000 (76.20)	2.509 (63.73)	2.200 (55.88)	2.405 (61.09)	.173 (4.39)	.312 (7.92)	23	.125	Pin. right angle
M55302/38-09	3.346 (84.99)	3.000 (76.20)	2.509 (63.73)	2.200 (55.88)	2.405 (61.09)	.173 (4.39)	.312 (7.92)	23	.25	Pin. right angle
M55302/38-10	3.971 (100.86)	3.600 (91.44)	3.134 (79.60)	2.800 (71.12)	3.005 (76.33)	.186 (4.72)	.125 (3.18)	29	.0625	Pin. right angle
M55302/38-11	3.971 (100.86)	3.600 (91.44)	3.134 (79.60)	2.800 (71.12)	3.005 (76.33)	.186 (4.72)	.188 (4.78)	29	.125	Pin. right angle
M55302/38-12	3.971 (100.86)	3.600 (91.44)	3.134 (79.60)	2.800 (71.12)	3.005 (76.33)	.186 (4.72)	.312 (7.92)	29	.25	Pin. right angle
M55302/38-13	4.596 (116.74)	4.200 (106.68)	3.759 (95.48)	3.400 (86.36)	3.605 (91.57)	.198 (5.03)	.125 (3.18)	35	.0625	Pin. right angle
M55302/38-14	4.596 (116.74)	4.200 (106.68)	3.759 (95.48)	3.400 (86.36)	3.605 (91.57)	.198 (5.03)	.188 (4.78)	35	.125	Pin. right angle
M55302/38-15	4.596 (116.74)	4.200 (106.68)	3.759 (95.48)	3.400 (86.36)	3.605 (91.57)	.198 (5.03)	.312 (7.92)	35	.25	Pin. right angle

1/ Dimensions are in inches.

2/ Metric equivalents are given for information only.

REQUIREMENTS:

Dimensions and configurations: See figure 1 and table I.

Material:

Trapezoidal shells: Die cast aluminum in accordance with SAE AMS-QQ-A-591, composition 13, A13, 380, or A380, or ASTM B85/B85M, alloy 380.0 or A380.0, cadmium plated, iridescent gold color, type II, class 1 or 2, in accordance with SAE AMS-QQ-P-416.

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Contact identification: Shall be numerical and sequential, in the pattern indicated. See figure 2.

Gold plating: Gold plating shall be in accordance with ASTM B488, type II, class 2.54. 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, 60 Hz, 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-DTL-55302/42.

PIN: See table I.

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.

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

MIL-DTL-55302/42

ASTM B85/B85M

ASTM B488

SAE AMS-QQ-A-591

SAE AMS-QQ-P-416

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CONCLUDING MATERIAL

Custodians:  
Army - AT  
Air Force - 99  
DLA - CC

Preparing activity:  
DLA – CC

(Project: 5935-2012-130)

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