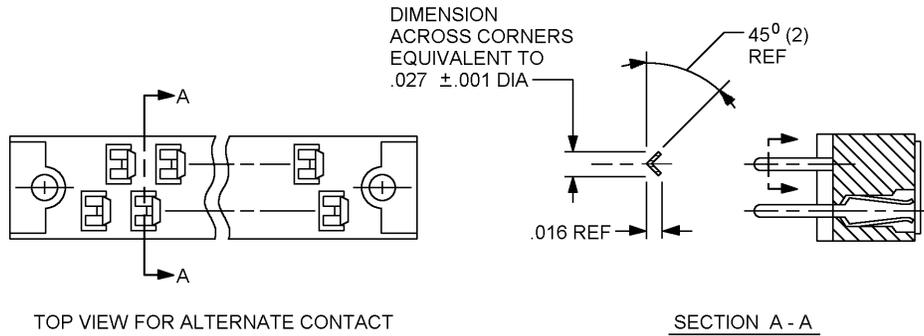


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ALTERNATE CONTACT CONSTRUCTION

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.044	1.12	.120	3.05	.600	15.24	1.600	40.64
.004	0.10	.050	1.27	.136	3.45	.700	17.78	1.800	45.72
.005	0.13	.055	1.40	.150	3.81	.750	19.05	1.900	48.26
.006	0.15	.065	1.65	.154	3.91	.800	20.32	1.950	49.53
.007	0.18	.070	1.78	.175	4.44	1.000	25.40	2.000	50.80
.012	0.30	.071	1.80	.233	5.92	1.100	27.94	2.220	56.39
.016	0.40	.079	2.01	.245	6.22	1.150	29.21	2.350	59.69
.026	0.66	.084	2.13	.247	6.27	1.200	30.48	3.700	93.98
.027	0.69	.100	2.54	.265	6.73	1.400	35.56	3.800	96.52
.028	0.71	.112	2.84	.300	7.62	1.500	38.10	4.000	101.60
.039	0.99	.119	3.02	.400	10.16	1.550	39.37	4.150	105.41

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are $\pm .005$ (0.13 mm) on three place decimals and $\pm 2^\circ$ on angles.
4. These connectors mate with connectors in accordance with MIL-DTL-55302/4 and MIL-DTL-55302/5, and are primarily for use with multilayered printed wiring boards.
5. Positional tolerances of guide pins shall apply at datum plane X.
6. Pad(s) suitable for printed circuit board support are required. Dimensions and location(s) are optional.

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

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TABLE I. Dimensions and dash numbers. 1/ 2/

Dash no.	No. of contacts	A ±.010 (±.25)	B basic	C ref	D ref	E ±.008 (±.203)	F +.011(±.28) -.010 (±.25)
01	9	.750 (19.05)	.600 (15.24)	.400 (10.16)	.300 (7.62)	.128 (3.25)	.164 (4.17)
02	17	1.150 (29.21)	1.000 (25.40)	.800 (20.32)	.700 (17.78)	.128 (3.25)	.164 (4.17)
03	25	1.550 (39.37)	1.400 (35.56)	1.200 (30.48)	1.000 (25.40)	.128 (3.25)	.164 (4.17)
04	33	1.950 (49.53)	1.800 (45.72)	1.600 (40.64)	1.500 (38.10)	.128 (3.25)	.164 (4.17)
05	41	2.350 (59.69)	2.200 (56.39)	2.000 (50.80)	1.900 (48.26)	.128 (3.25)	.164 (4.17)
06	77	4.150 (105.41)	4.000 (101.60)	3.800 (95.52)	3.700 (93.98)	.128 (3.25)	.164 (4.17)
07	9	.750 (19.05)	.600 (15.24)	.400 (10.16)	.300 (7.62)	.090 (2.29)	.110 (2.80)
08	17	1.150 (29.21)	1.000 (25.40)	.800 (20.32)	.700 (17.78)	.090 (2.29)	.110 (2.80)
09	25	1.550 (39.37)	1.400 (35.56)	1.200 (30.48)	1.000 (25.40)	.090 (2.29)	.110 (2.80)
10	33	1.950 (49.53)	1.800 (45.72)	1.600 (40.64)	1.500 (38.10)	.090 (2.29)	.110 (2.80)
11	41	2.350 (59.69)	2.200 (56.39)	2.000 (50.80)	1.900 (48.26)	.090 (2.29)	.110 (2.80)
12	77	4.150 (105.41)	4.000 (101.60)	3.800 (95.52)	3.700 (93.98)	.090 (2.29)	.110 (2.80)

1/ Dimensions are in inches.

2/ Metric equivalents in parentheses are given for information only.

REQUIREMENTS

Design and construction:

Dimensions and configurations: See figure 1 and table I.

Material:

Guide pins and guide bushing: Brass composition B, 60,000 to 70,000 PSI tensile, in accordance with ASTM B134/B134M, or FC brass in accordance with ASTM B16/B16M or Alloy C33500 in accordance with ASTM B453/B453M.

Plating:

Guide pins and guide bushings: Copper alloy in accordance with ASTM B134/B134M or ASTM B16/B16M, or ASTM B453/B453M.

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Contact: Gold overall in accordance with MIL-DTL-45204, type II, grade C, class 1 or equivalent, over nickel plating in accordance with SAE-AMS-QQ-N-290, class 2, 50 to 150 microinches, or localized contact finish with contact engagement end gold plated with type II, class 1, grade C in accordance with MIL-DTL-45204 or equivalent over nickel underplate, class 2, 30 to 150 microinches in accordance with SAE-AMS-QQ-N-290, and contact termination end plating tin lead (50% to 70%) composition 100 microinches minimum thickness in accordance with SAE-AMS-P-81728 over nickel underplate. Solder dipping is permitted providing it meets procedures and requirements of MIL-STD-202, method 208.

Contact identification: Shall be alphabetical and sequential in the pattern indicated, using upper case characters followed by lower case characters. Except dash number 06, the characters shall be numerical and sequential in pattern indicated.

Socket size: 23.

Wire size: 22.

Current rating: 5 amperes, maximum.

Oversize pin exclusion: Not applicable.

Mating and unmating: The maximum insertion force, in pounds shall not exceed a value equal to 0.5 times the number of contacts for standard force contacts and .25 times the number of contacts for low insertion force contacts times the number of contacts.

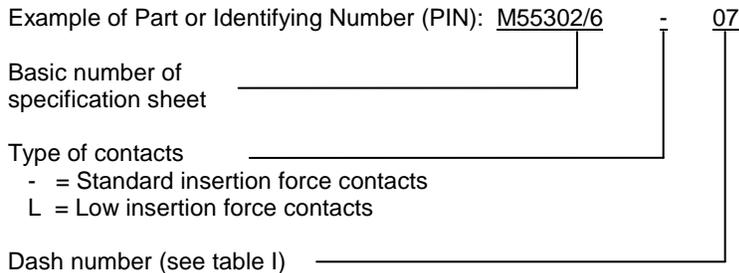
Contact engagement and separation forces: The individual contact withdrawal force shall be .5-ounce minimum for standard force contacts and .25 ounce minimum for low insertion force contacts when tested with a minimum diameter test pin in accordance with SAE-AS31971-23X1.

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 V rms, 60 Hz, ac.

High altitude: 500 V rms, 60 Hz, ac.



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

MIL-DTL-55302/4
MIL-DTL-55302/5
MIL-DTL-45204
MIL-STD-202
ASTM B16/B16M
ASTM B134/B134M
ASTM B453/B453M
SAE-AMS-QQ-N-290
SAE-AMS-P-81728

CONCLUDING MATERIAL

Custodians:
Army – CR
Navy - EC
Air Force – 85
DLA – CC

Preparing activity:
DLA - CC

(Project 5935-2013-130)

Review activities:
Army - AT, AV, 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/>.