INCH-POUND

MIL-DTL-24308/7J
w/AMENDMENT 3
8 April 2015
SUPERSEDING
w/AMENDMENT 2
9 April 2013

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRIC, RECTANGULAR, MINIATURE, POLARIZED SHELL, RACK AND PANEL, PIN CONTACTS, NONMAGNETIC, CLASSES M AND N, SOLDER TYPE

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

The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-24308.

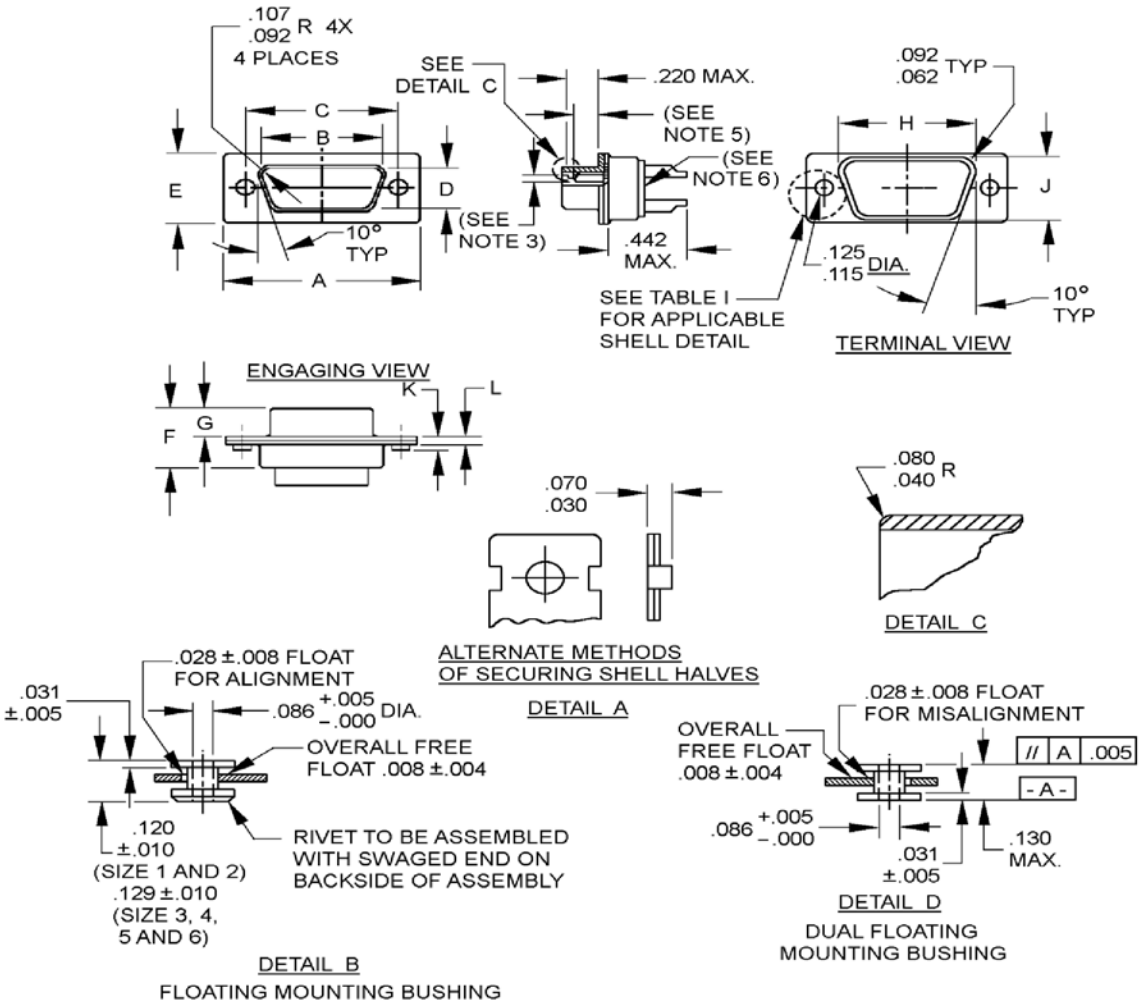

FIGURE 1. Shell, plug, solder type.

Detail (See note 7)	Shell size	Dimensions										
		A	B	C	D	E	F	G	H	J	K	L
A	1	1.228 (31.19) 1.198 (30.43)	.671 (17.04) .661 (16.79)	.989 (25.12) .979 (24.87)	.334 (8.48) .324 (8.23)	.509 (12.93) .479 (12.17)	.432 (10.97) .412 (10.46)	.238 (6.05) .229 (5.82)	.769 (19.53) .749 (19.02)	.432 (10.97) .412 (10.46)	.060 (1.52) .035 (0.89)	.040 (1.02) .020 (0.51)
	2	1.556 (39.52) 1.526 (38.76)	.999 (25.37) .989 (25.12)	1.317 (33.45) 1.307 (33.20)	.334 (8.48) .324 (8.23)	.509 (12.93) .479 (12.17)	.432 (10.97) .412 (10.46)	.238 (6.05) .229 (5.82)	1.093 (27.76) 1.073 (27.25)	.432 (10.97) .412 (10.46)	.060 (1.52) .035 (0.89)	.040 (1.02) .020 (0.51)
	3	2.103 (53.42) 2.073 (52.65)	1.539 (39.09) 1.529 (38.84)	1.857 (47.17) 1.847 (46.91)	.334 (8.48) .324 (8.23)	.509 (12.93) .479 (12.17)	.436 (11.07) .416 (10.57)	.236 (5.99) .224 (5.69)	1.635 (41.53) 1.615 (41.02)	.432 (10.97) .412 (10.46)	.070 (1.78) .050 (1.27)	.049 (1.24) .029 (0.74)
	4	2.744 (69.70) 2.714 (68.94)	2.187 (55.55) 2.177 (55.30)	2.505 (63.63) 2.495 (63.37)	.334 (8.48) .324 (8.23)	.509 (12.93) .479 (12.17)	.436 (11.07) .416 (10.57)	.236 (5.99) .224 (5.69	2.282 (57.96) 2.262 (57.45)	.432 (10.97) .412 (10.46)	.070 (1.78) .050 (1.27)	.049 (1.24) .029 (0.74)
	5	2.650 (67.31) 2.620 (66.55)	2.084 (52.93) 2.074 (52.68)	2.411 (61.24) 2.401 (60.99)	.446 (11.33) .436 (11.07)	.620 (15.75) .590 (14.99)	.436 (11.07) .416 (10.57)	.236 (5.99) .224 (5.69	2.188 (55.58) 2.168 (55.07)	.544 (13.82) .524 (13.31)	.070 (1.78) .050 (1.27)	.049 (1.24) .029 (0.74)
	6	2.744 (69.70) 2.714 (68.94)	2.217 (56.31) 2.207 (56.06)	2.505 (63.63) 2.495 (63.37)	.508 (12.90) .498 (12.65)	.683 (17.35) .653 (16.59)	.436 (11.07) .416 (10.57)	.236 (5.99) .224 (5.69	2.312 (58.72) 2.292 (58.22)	.606 (15.39) .586 (14.88)	.070 (1.78) .050 (1.27)	.049 (1.24) .029 (0.74)
B (See note 8)	1	Same as detail A, shell size 1 except in accordance with detail B.										
	2	Same as detail A, shell size 2 except in accordance with detail B.										
	3	Same as detail A, shell size 3 except in accordance with detail B.										
	4	Same as detail A, shell size 4 except in accordance with detail B.										
	5	Same as detail A, shell size 5 except in accordance with detail B.										
	6	Same as detail A, shell size 6 except in accordance with detail B.										
D	1	Same as detail A, shell size 1 except in accordance with detail D.										
	2	Same as detail A, shell size 2 except in accordance with detail D.										
	3	Same as detail A, shell size 3 except in accordance with detail D.										
	4	Same as detail A, shell size 4 except in accordance with detail D.										
	5	Same as detail A, shell size 5 except in accordance with detail D.										
	6	Same as detail A, shell size 6 except in accordance with detail D.										

FIGURE 1. Shell, plug, solder type - Continued.

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Pin diameter .041/.039 (1.04/0.99mm) for arrangements A-1-1, A-2-1, A-3-1, A-4-1, A-5-1. Pin diameter .0305/.0295 (0.775/0.749mm) for arrangements A-1-2, A-2-2, A-3-2, A-4-2, A-5-2, and A-6-1.
4. Copyright notice. All information disclosed in this military specification which is of may be copyrighted by ITT Cannon Electric is reproduced herein with the express permission of the copyright owner.
5. Dimensions are .150 (3.81mm) minimum full pin diameter extension (sizes 3 through 6) and .159 (4.04mm) minimum full pin diameter extension (sizes 1 and 2).
6. Indentation on the ends of the termination side of the shell, for the purpose of securing the insulator in the shell, is permitted. This may result in the “F” dimension being undersized in these areas. However the “F” dimension shall be maintained for the remainder of the connector.
7. See table I for supersession data.
8. Detail B is inactive for new design, use detail D.

Inches	mm	Inches	mm	Inches	mm
.004	0.10	.062	1.57	.115	2.92
.005	0.13	.065	1.65	.120	3.05
.008	0.20	.070	1.78	.125	3.18
.010	0.25	.086	2.18	.129	3.28
.030	0.76	.092	2.34	.130	3.30
.031	0.79	.102	2.59	.220	5.59
.040	1.02	.106	2.69	.422	10.72

FIGURE 1. Shell, plug, solder type - Continued.

REQUIREMENTS:

The connectors shall conform to figure 1 and the specification Part or Identifying Number (PIN) indicated in table I.

TABLE I. Design standards. 1/

Part of Identifying Number (PIN) class N	PIN class M	Shell size	Shell Detail (see figure 1)	Insert arrangement reference number 3/	Contact PIN 4/
M24308/7-1	M24308/7-23	1	A	A-1-1	B2
M24308/7-2	M24308/7-24	2	A	A-2-1	B2
M24308/7-3	M24308/7-25	3	A	A-3-1	B2
M24308/7-4	M24308/7-26	4	A	A-4-1	B2
M24308/7-5	M24308/7-27	5	A	A-5-1	B2
2/ M24308/7-12	2/ M24308/7-34	1	B	A-1-1	B2
M24308/7-13	M24308/7-35	2	B	A-2-1	B2
M24308/7-14	M24308/7-36	3	B	A-3-1	B2
M24308/7-15	M24308/7-37	4	B	A-4-1	B2
M24308/7-16	M24308/7-38	5	B	A-5-1	B2
M24308/7-17	M24308/7-39	1	D	A-1-1	B2
M24308/7-18	M24308/7-40	2	D	A-2-1	B2
M24308/7-19	M24308/7-41	3	D	A-3-1	B2
M24308/7-20	M24308/7-42	4	D	A-4-1	B2
M24308/7-21	M24308/7-43	5	D	A-5-1	B2

1/ These connectors mate with connectors specified in MIL-DTL-24308/5, MIL-DTL-24308/6.
2/ PINs M24308/7-12 through M24308/7-16 and M24308/7-34 through M24308/7-38 are inactive for new design, use M24308/7-17 through M24308/7-21 and M24308/7-39 through M24308/7-43.
3/ For insert arrangement see MIL-DTL-24308 Appendix A.
4/ For contact see MIL-DTL-24308 Appendix B.

PIN: Consists of the letter M, the basic number of the specification sheet, and a dash number compiled from the code.

PIN example M24308/7 -21 F

Specification sheet number

Data sheet number from table I

Finish: For class N:
A = Pure electrodeposited aluminum
F = Cadmium (Navy-SH prohibits the use of cadmium finished connectors for shipboard application)
P = Passivated stainless steel
Z = Zinc

For class M: Class M connectors have a gold finish, no suffix is required.

Supersession data: See table II.

TABLE II. Shell supersession data.

Shell detail (see figure 1)	Superseded MS sheet
Detail A	MS18268-1 through -6
Detail B	MS18268-7 through -12
Detail D	MS18268-13 through -18

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-24308, this document references the following:

MIL-DTL-24308/5
MIL-DTL-24308/6

CONCLUDING MATERIAL

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

Review activities:
Army - AT, CR4, MI
Navy - AS, CG, MC, SH
Air Force - 99

Preparing activity:
DLA - CC

(Project: 5935-2015-085)

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/.