INCH-POUND

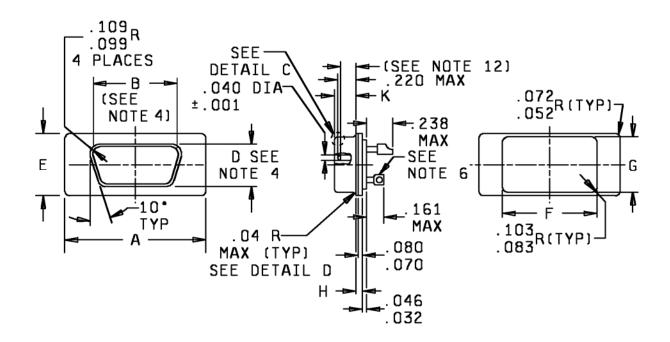
MIL-DTL-24308/9H <u>25 June 2007</u> SUPERSEDING MIL-DTL-24308/9G 19 July 2000

## **DETAIL SPECIFICATION SHEET**

CONNECTORS, ELECTRIC, RECTANGULAR, MINIATURE, POLARIZED SHELL, RACK AND PANEL, PLUG, PIN CONTACTS, HERMETIC, CLASSES H AND K

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

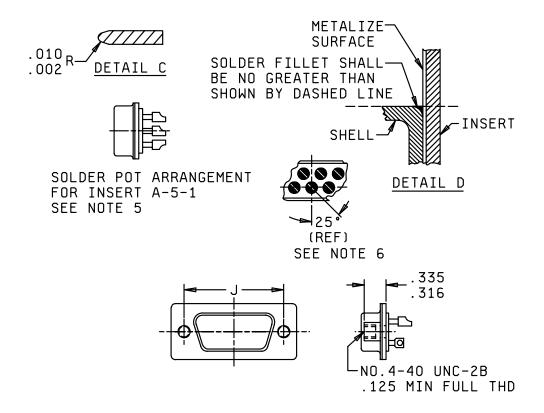
The requirements for acquiring the product described herein shall consist of this specification sheet and MIL-DTL-24308.



DETAIL A
Part or Identifying Number (PIN)
M24308/9-1 through 10

FIGURE 1. Shell, plug, hermetic.

AMSC N/A FSC 5935



DETAIL B WITH LOCKPOST PINs M24308/9-11 through -20

ALL OTHER DETAILS AND DIMENSIONS THE SAME AS FOR DETAIL A

FIGURE 1. Shell, plug, hermetic - Continued.

Detail	Shell	Dimensions								
	size	А	В	D	Е	F	G	Н	J	K
		1.228	.672	.335	.508	.735	.379	.104		.241
	1	(31.19)	(17.07)	(8.51)	(12.90)	(18.67)	(9.63)	(2.64)		(6.12)
		1.198	.662	.325	.488	.715	.359	.084		.229
		(30.43)	(16.81)	(8.26)	(12.40)	(18.16)	(9.12)	(2.13)		(5.82)
		1.556	.998	.335	.508	.942	.379	.104		.241
	2	(39.52)	(25.35)	(8.51)	(12.90)	(23.93)	(9.63)	(2.64)		(6.12)
		1.526	.988	.325	.488	.922	.359	.084		.229
		(38.76)	(25.10)	(8.26)	(12.40)	(23.42)	(9.12)	(2.13)		(5.82)
	_	2.103	1.540	.335	.508	1.489	.379	.113		.236
	3	(53.42) 2.073	(39.12) 1.530	( 8.51) .325	(12.90) .488	(37.82) 1.469	(9.63) .359	(2.87) .093		(5.99) .224
Α		(52.65)	(38.86)	(8.26)	(12.40)	(37.31)	(9.12)	(2.36)		(5.69)
_ ^		2.744	2.188	.335	.508	2.135	.379	.113		.236
	4	(69.76)	(55.58)	(8.51)	(12.90)	(54.23)	(9.63)	(2.87)		(5.99)
		2.714	2.178	.325	.488	2.115	.359	.093		.224
		(68.94)	(55.32)	(8.26)	(12.40)	(53.72)	(9.12)	(2.36)		(5.69)
		2.650	2.084	.446	.620	2.010	.510	.113		.236
	5	(67.31)	(52.93)	(11.33)	(15.75)	(51.05)	(12.95)	(2.87)		(5.99)
		2.620	2.074	.436	`.600´	1.990	.490	`.093 <sup>´</sup>		.224
		(66.55)	(52.68)	(11.07)	(15.24)	(50.55)	(12.45)	(2.36)		(5.69)
	1	1.228	.672	.335	.508	.735	.379	.104	.989	.241
		(31.19)	(17.07)	(8.51)	(12.90)	(18.67)	(9.63)	(2.64)	(25.12)	(6.12)
		1.198	.662	.325	.488	.715	.359	.084	.979	.229
		(30.43)	(16.81)	(8.26)	(12.40)	(18.16)	(9.12)	(2.13)	(24.87)	(5.82)
	2	1.556	.998	.335	.508	.942	.379	.104	1.317	.241
		(39.52)	(25.35)	(8.51)	(12.90)	(23.93)	(9.63)	(2.64)	(33.45)	(6.12)
		1.526	.988	.325	.488	.922	.359	.084	1.307	.229
_		(38.76)	(25.10)	( 8.26)	(12.40)	(23.42)	(9.12)	(2.13)	(33.20)	(5.82)
В	3	2.103	1.540	.335	.508	1.489	.379	.113	1.857	.236
		(53.42) 2.073	(39.12) 1.530	(8.51)	(12.90) .488	(37.82)	(9.63)	(2.87) .093	(47.17)	(5.99) .224
		(52.65)	(38.86)	.325 ( 8.26)	(12.40)	1.469 (37.31)	.359 (9.12)	(2.36)	1.847 (46.91)	(5.69)
	4	2.744	2.188	.335	.508	2.135	.379	.113	2.505	.236
	4	(69.76)	(55.58)	(8.51)	.508 (12.90)	(54.23)	(9.63)	(2.87)	(63.63)	.236 (5.99)
		2.714	2.178	.325	.488	2.115	.359	.093	2.495	.224
		(68.94)	(55.32)	(8.26)	(12.40)	(53.72)	(9.12)	(2.36)	(63.37)	(5.69)
	5	2.650	2.084	.441	.620	2.010	.510	.113	2.411	.236
		(67.31)	(52.93)	(11.20)	(15.75)	(51.05)	(12.95)	(2.87)	(61.24)	(5.99)
		2.620	2.074	.431	.600	1.990	.490	.093	2.401	.224
		(66.55)	(52.68)	(10.95)	(15.24)	(50.55)	(12.45)	(2.36)	(60.99)	(5.69)

FIGURE 1. Shell, plug, hermetic - Continued.

### NOTES:

- 1. Dimensions are in inches.
- 2. Metric equivalents are in parentheses.
- 3. Metric equivalents are given for information only and are based upon 1.00 inch = 25.4 mm.
- 4. Dimensions "B" and "D" are calculated at the start of corner radius. .04 (1.0 mm) maximums apply draft minus.
- 5. In insert arrangements (See MIL-DTL-24308 APPENDIX A) A-1-1, A-2-1, A-3-1, A-4-1, the contact solder pots open toward the top in the upper row and toward the bottom in the lower row. In insert A-5-1the two top rows face up and the lower row opens toward the bottom. The angular position may vary ±20° from vertical centerline.
- 6. Size 20 contact eyelet terminal flats are rotated  $25^{\circ} \pm 5^{\circ}$  as shown.
- 7. Connector shell is solder mount type.
- 8. Documents shall be of the issue in effect on date of invitation for bid.
- 9. For design feature purposes, this standard takes precedence over procurement documents referenced herein.
- 10. Patent notice. The Government has a royalty free license under the U.S. Patents listed below for the benefit of manufacturers of the items disclosed and described herein, either for the Government or for use in equipment delivered to the Government.

#### **Patent Numbers**

2790153 expires April 23, 1974 3110093 expires November 12, 1980 3158424 expires November 24, 1981

- 11. Copyright notice. All information disclosed in this military standard which is or may be copyrighted by ITT Cannon Electric is reproduced herein with the express permission of the copyright owner.
- 12. Dimensions are .155 minimum full pin diameter extension (sizes 3 through 6) and .164 minimum full pin diameter extension (sizes 1 and 2).

Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.052	1.32	.103	2.62	.220	5.59
.002	0.05	.070	1.78	.109	2.77	.238	6.05
.010	0.25	.072	1.83	.125	3.18	.316	8.03
.032	0.81	.080	2.03	.155	3.94	.335	8.51
.040	1.02	.083	2.11	.161	4.09		
.046	1.17	.090	2.51	.164	4.17		

FIGURE 1. Shell, plug, hermetic - Continued.

#### **REQUIREMENTS:**

The connectors shall conform to the design standards indicated in table I.

TABLE I. Design standards. 1/

Part or Identifying Number (PIN)	PIN class K	Shell size	Shell Detail	Insert Arrangement	Contact terminals 3/	
class H	Class K	SIZE	(See figure 1)	reference number <u>2</u> /	Solder cup	Eyelet
M24308/9-1	M24308/9-21	1	A	A-1-1	B-4	
M24308/9-2	M24308/9-22	2	А	A-2-1	B-4	
M24308/9-3	M24308/9-23	3	А	A-3-1	B-4	
M24308/9-4	M24308/9-24	4	Α	A-4-1	B-4	
M24308/9-5	M24308/9-25	5	Α	A-5-1	B-4	
M24308/9-6	M24308/9-26	1	А	A-1-1		B-3
M24308/9-7	M24308/9-27	2	Α	A-2-1		B-3
M24308/9-8	M24308/9-28	3	Α	A-3-1		B-3
M24308/9-9	M24308/9-29	4	Α	A-4-1		B-3
M24308/9-10	M24308/9-30	5	Α	A-5-1		B-3
M24308/9-11	M24308/9-31	1	В	A-1-1	B-4	
M24308/9-12	M24308/9-32	2	В	A-2-1	B-4	
M24308/9-13	M24308/9-33	3	В	A-3-1	B-4	
M24308/9-14	M24308/9-34	4	В	A-4-1	B-4	
M24308/9-15	M24308/9-35	5	В	A-5-1	B-4	
M24308/9-16	M24308/9-36	1	В	A-1-1		B-3
M24308/9-17	M24308/9-37	2	В	A-2-1		B-3
M24308/9-18	M24308/9-38	3	В	A-3-1		B-3
M24308/9-19	M24308/9-39	4	В	A-4-1		B-3
M24308/9-20	M24308/9-40	5	В	A-5-1		B-3

<sup>1/</sup> These connectors mate with connectors specified in MIL-DTL-24308/1, /2, and /23.

Supersession data: See table II.

TABLE II. Shell supersession data.

Shell detail (see figure 1)	Superseded MS sheet
Detail A	MS18272-1 through -5
Detail B	MS18272-6 through -10

<sup>2/</sup> For insert arrangement see MIL-DTL-24308 Appendix A. 3/ For contacts see MIL-DTL-24308 Appendix B.

Changes from previous issue: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of changes.

Referenced documents. In addition to MIL-DTL-24308, this document references the following:

MIL-DTL-24308/1 MIL-DTL-24308/2 MIL-DTL-24308/23

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

PIN example:	M24308/9	<u>-10</u>
Specification sheet number		
Data sheet number from table I		

Finish: For class H: Class H connectors have a tin finish, no suffix is required. For class K: Class K connectors have a gold finish, no suffix is required.

#### **CONCLUDING MATERIAL**

Preparing activity:

(Project: 5935-2006-029)

DLA - CC

Custodians:

Army - CR

Navy - EC Air Force - 11

NASA - NA DLA - CC

Review activities:

Army - AV, AT, CR4, MI

Navy - AS, CG, MC, SH

Air Force - 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 <a href="http://assist.daps.dla.mil">http://assist.daps.dla.mil</a>.