

MIL-C-83723/148(USAF)
1 OCT 1975
SUPERSEDING
MIL-C-83723/14A(USAF)
19 April 1971

MILITARY SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, (CIRCULAR, ENVIRONMENT RESISTING), PLUG,
(BAYONET COUPLING, CRIMP PIN CONTACT)
(SERIES I, CLASSES A, G, AND R)

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

The complete requirements for procuring the connectors described herein shall consist of this document and the latest issue of Specification MIL-C-26482.

(B) INACTIVE. SUPERSEDED BY MS3476 OF MIL-C-26482.

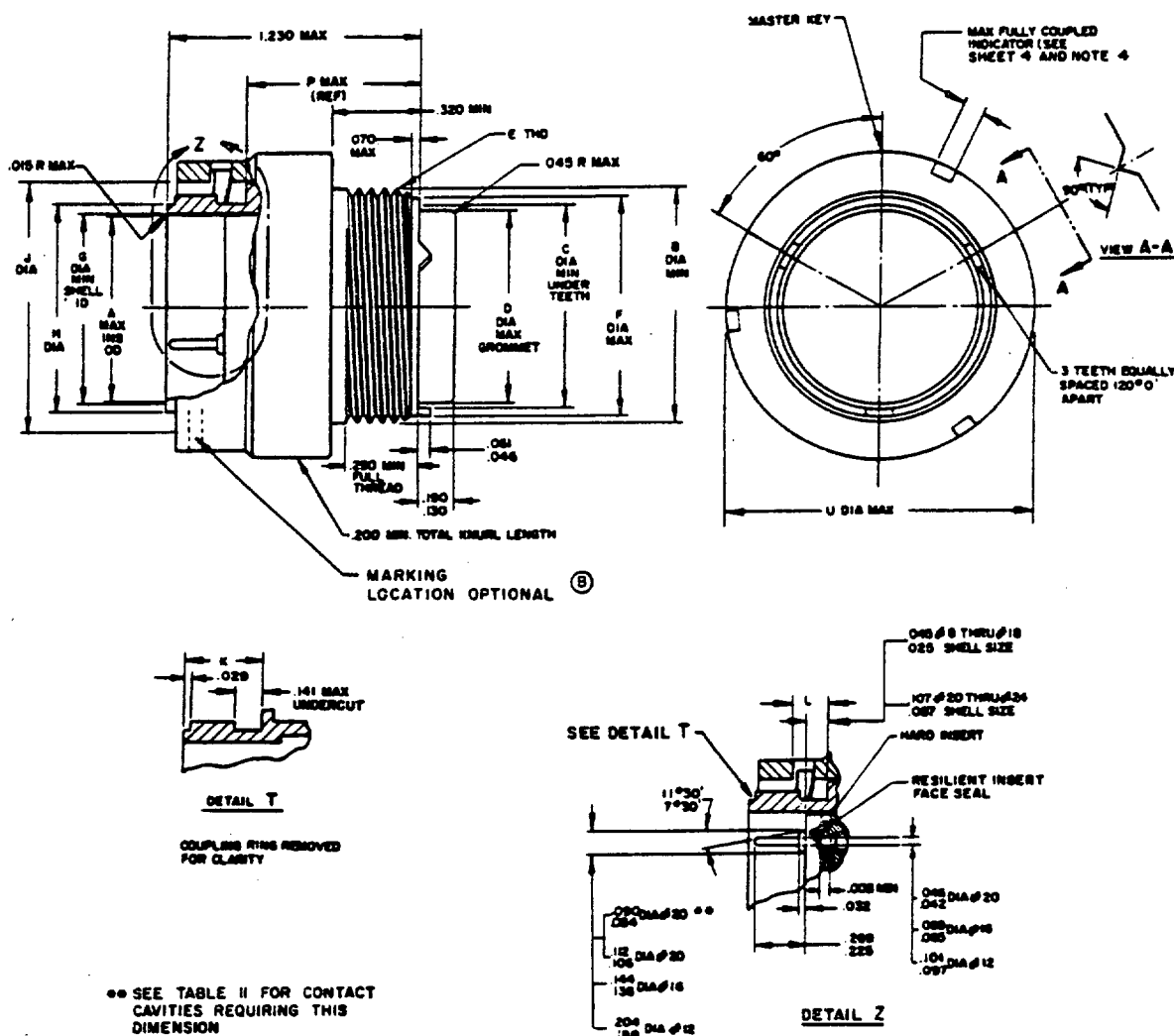


FIGURE 1

Ⓑ denotes changes

MIL-C-83723/14B(USAF)

TABLE I
CONNECTOR DIMENSIONS

SIZE	A	B	C	D	E THREAD	F	G	H	J	K	L	M	N
8	.285	.470	.370	.305	1/2-20 UNF-2A	.437	.292	.358 .352	.486 .480	.363 .343	.133 .093	.403 .392	.581 .570
10	.402	.600	.497	.405	5/8-24 UNEF-2A	.572	.409	.486 .480	.607 .601	.363 .343	.133 .093	.531 .520	.702 .691
12	.516	.724	.613	.531	3/4-20 UNEF-2A	.687	.523	.598 .592	.766 .760	.363 .343	.133 .093	.680 .669	.876 .865
14	.641	.849	.738	.665	7/8-20 UNEF-2A	.812	.648	.723 .717	.890 .884	.363 .343	.133 .093	.805 .794	1.000 .989
16	.766	.974	.863	.790	1-20 UNEF-2A	.937	.772	.848 .842	1.015 1.009	.363 .343	.133 .093	.930 .919	1.125 1.114
18	.855	1.030	.919	.869	1 1/16-18 UNEF-2A	.992	.862	.948 .942	1.141 1.135	.363 .343	.133 .093	1.030 1.019	1.250 1.239
20	.980	1.154	1.044	.994	1 3/16-18 UNEF-2A	1.117	.987	1.073 1.067	1.265 1.259	.425 .405	.133 .093	1.155 1.144	1.375 1.364
22	1.105	1.279	1.169	1.119	1 5/16-18 UNEF-2A	1.242	1.111	1.198 1.192	1.390 1.384	.425 .405	.133 .093	1.280 1.269	1.500 1.489
24	1.229	1.404	1.294	1.244	1 7/16-18 UNEF-2A	1.367	1.237	1.323 1.317	1.515 1.509	.425 .405	.172 .132	1.405 1.394	1.629 1.618

SIZE	P	U	V	V'	V''	V'''	V''''	W	W'
8	.887	.782	1.507	1.857	2.130	4.784	2.134	.830	3.250
10	.887	.926	1.507	1.857	2.130	4.784	2.234	.880	3.250
12	.887	1.043	1.507	1.857	2.265	4.784	2.364	.950	3.250
14	.887	1.183	1.507	2.092	2.355	4.784	2.364	1.010	3.250
16	.887	1.305	1.507	2.092	2.490	4.784	2.594	1.070	3.250
18	.887	1.391	1.507	2.092	2.589	4.784	2.594	1.130	3.250
20	.825	1.531	1.507	2.092	2.722	4.784	2.824	1.190	3.250
22	.825	1.656	1.507	2.092	2.845	4.784	2.824	1.260	3.250
24	.825	1.777	1.507	2.092	2.967	4.784	3.064	1.320	3.250

MIL-C-83723/14B(USAF)

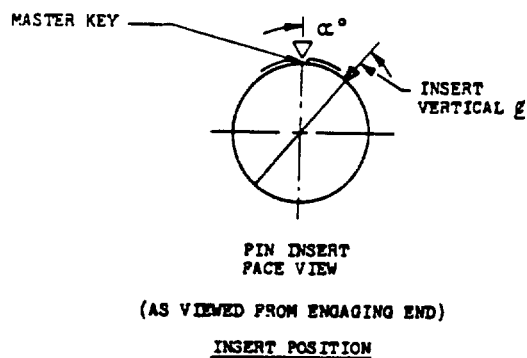
▽ INDICATES ϕ OF SHELL

FIGURE 2

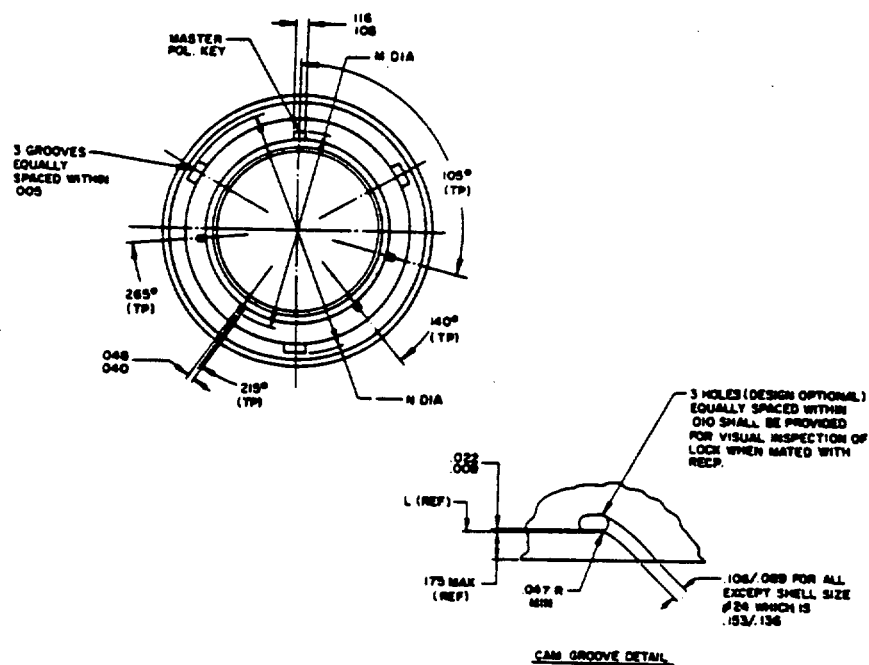


FIGURE 3

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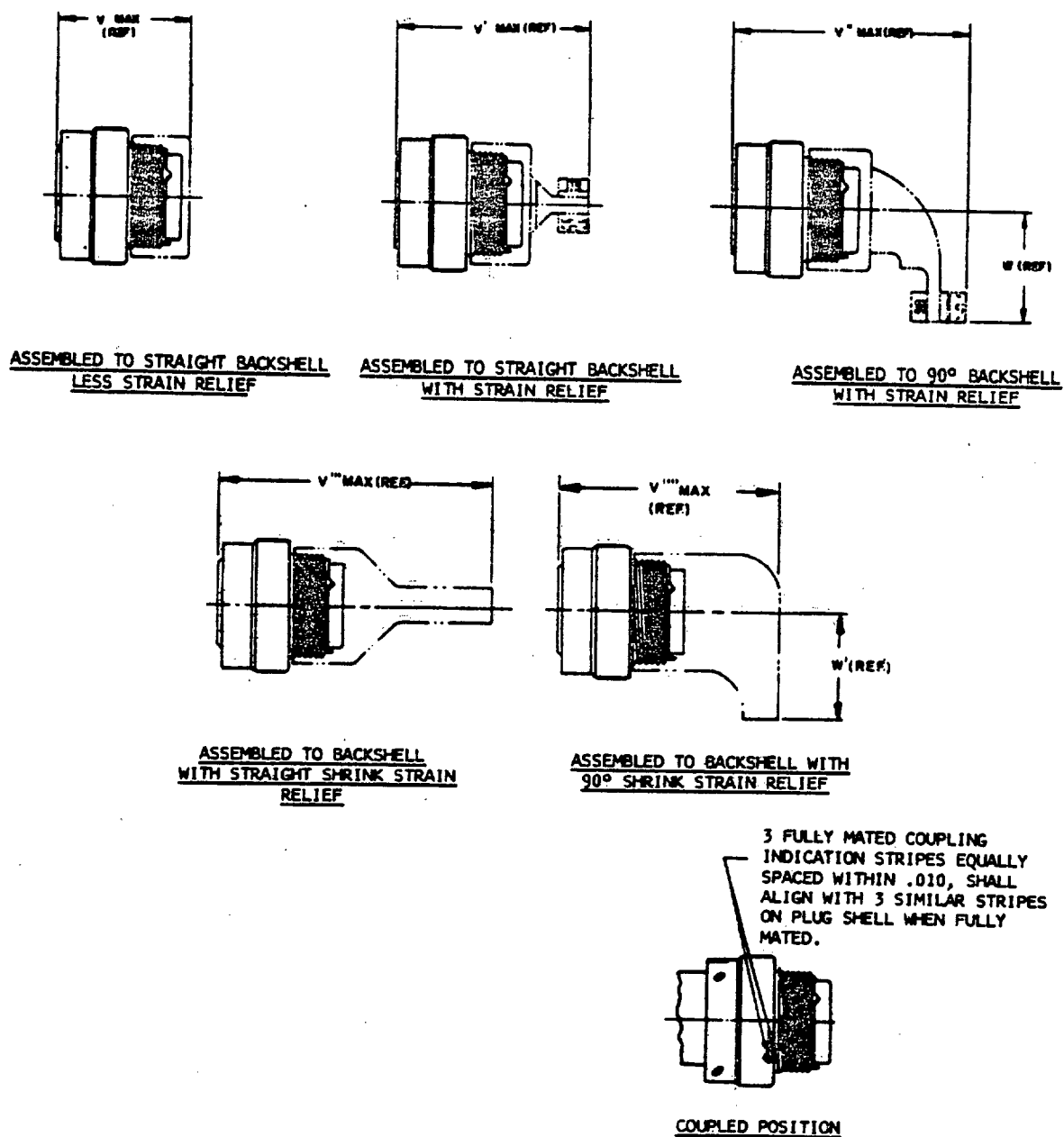
FIGURE 4

TABLE II. Insert arrangements requiring reduced diameters for raised seal barriers on outer row of contact cavities as indicated.

Shell	Insert arrangements	Contact cavities
8	33 and 98	A, B, and C
12	10	C and G
14	12	A, B, C, D, E, F, G, and H
14	18	A, C, E, G, J, and L
14	19	B, D, F, H, K, and M
16	26	A, B, C, D, E, F, G, H, J, K, L, M, N, P, and R
18	32	A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, and T
22	41	A, B, C, D, E, F, G, H, J, K, L, M, N, P, R, S, T, U, V, W, X, and Y

NOTES:

1. FOR ALTERNATE POLARIZING POSITIONS, THE CONNECTOR INSERT IS ROTATED IN RESPECT TO THE SHELL.
2. IN "NORMAL POSITION" (POSITION "N") THE INSERT VERTICAL CENTER LINE COINCIDES WITH THE CENTER LINE OF THE MASTER KEY OF THE SHELL.
3. IN "ALTERNATE POSITIONS" (POSITIONS "W", "X", "Y", AND "Z") THE PIN INSERT IS ROTATED ∞ DEGREES CLOCKWISE RELATIVE TO $\frac{1}{2}$ OF THE MASTER KEY OF THE SHELL.
4. FULLY MATED COUPLING INDICATION STRIPES AND POLARIZATION STRIPES SHALL BE COLOR CODED BLUE. STRIPES SHALL HAVE MIN. WIDTH OF .050. ON COUPLING RING AND MIN. WIDTH OF .040 ON THE SHELL.
5. FOUR KEYS (MMC) AND INSERT SHALL BE LOCATED WITHIN .0035 EITHER SIDE OF (TP) RELATIVE TO MASTER KEY (MMC) AND SHELL O.D. (MMC).
6. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCE SHALL BE .XX \pm .010 AND .XXX \pm .005, ANGULAR $x^\circ \pm 1^\circ - 0'$ AND $x^\circ x' \pm 30'$

MIL-C-83723/14B(USAF)

TABLE III WIRE DATA

CONTACT SIZE	WIRE SIZE AWG	INSULATION O.D. IN INCHES / WIRE SPECIFICATION ^{3/}			
		MIL-W-22759/4	MIL-W-16878/4	MIL-W-81381/-	
				LIGHT WT-/1	MEDIUM WT-/3
20	24	—	.040/.048 ^{1/}	.037/.043	.047/.054
	22	.071/.077	.046/.054	.043/.050	.053/.060
	20	.079/.085 ^{2/}	.054/.062	.051/.058	.061/.068
16	20	.079/.085	.054/.062 ^{1/}	.051/.058	.061/.068
	18	.092/.098	.064/.074	.060/.067	.071/.079
	16	.099/.107 ^{2/}	.073/.087	.066/.074	.079/.087
12	14	.112/.120 ^{1/}	.087/.101	.080/.089	.091/.099
	12	.129/.137 ^{2/}	.106/.120	.098/.108	.107/.117

^{1/} WIRE TO BE USED FOR CONNECTOR QUALIFICATION.^{2/} WIRE TO BE USED FOR CONTACT QUALIFICATION.^{3/} LISTED WIRE SPECIFICATIONS ARE NOT ALL INCLUSIVE. WIRE WITH SMOOTH EXTERIOR SURFACE, WHICH FALLS WITHIN THE SPECIFIED RANGE AND MEETS THE DESIGNERS CRITERIA, MAY BE USED IN APPLICATION.

MIL-C-83723/14B(USAF)

REQUIREMENTS:

Dimensions and configuration: See figures.

This connector mates with MIL-C-83723/1, /3, /5, and /7 (USAF).

- ⑧ For insert arrangements see MIL-STD-1669.

Rear hardware must be used per MIL-C-83723/15, /16(USAF), or Air Force Drawing 7045704.

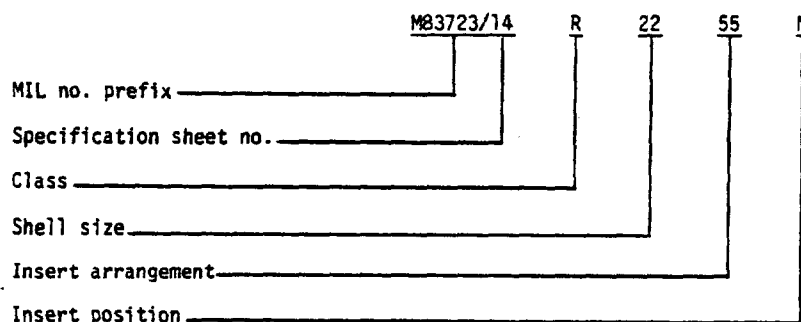
Connector assembly must include a backshell to meet the moisture sealing requirements.

- ⑧ Shell material: Classes A and R - Aluminum alloy per QQ-A-367.
Class G - Corrosion resistant steel per QQ-S-763.

Wire: See table III.

- ⑧ Connector identification marking shall be in accordance with MIL-C-26482. Example: MS3476L----, MB3723/14R----.

Part number example:



Custodian:
Air Force - 85

Review activities:
Air Force - 11, 17, 70, 71, 80, 82, 84
DSA - ES

Preparing activity:
Air Force - 85

(Project 5935-F964-14)