

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)

(E)

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

(B)

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 SUPERSEDED BY MS3476 OF MIL-C-26482.

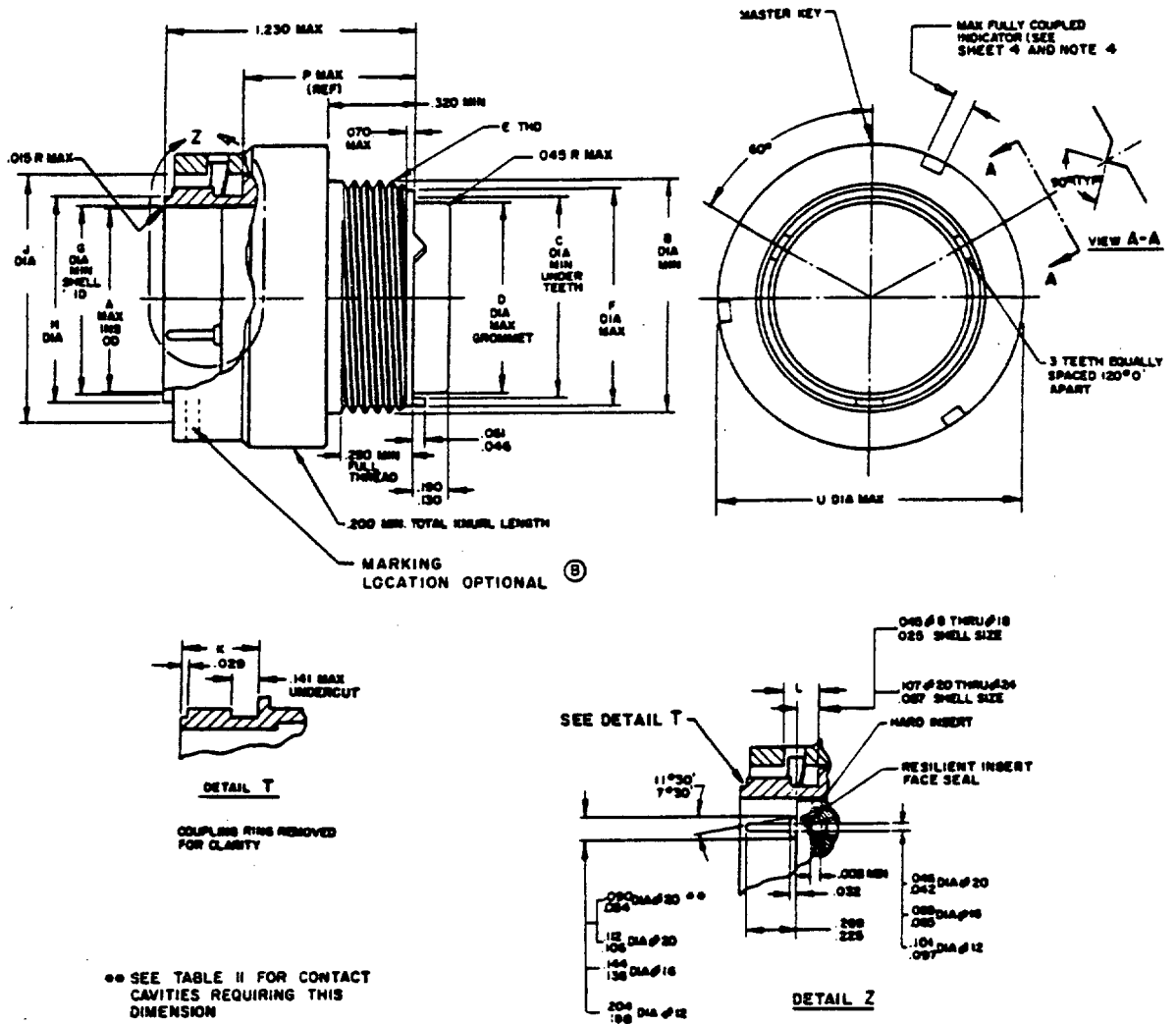


FIGURE 1

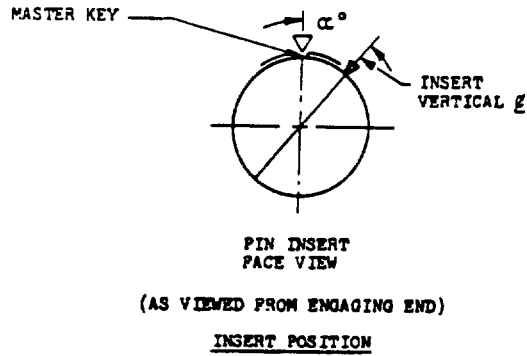
(B) denotes changes

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



▽ INDICATES g OF SHELL

FIGURE 2

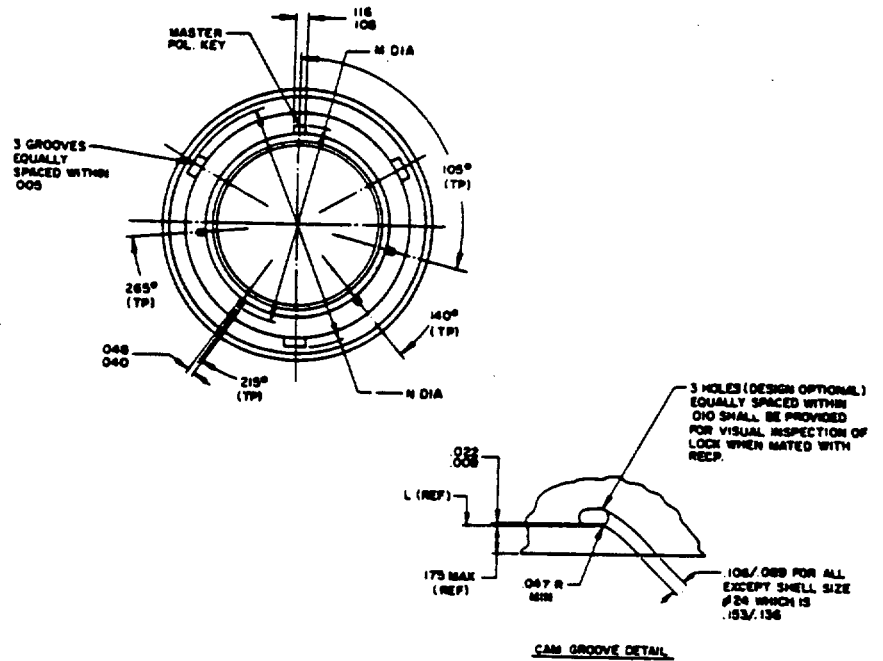
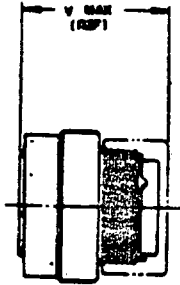
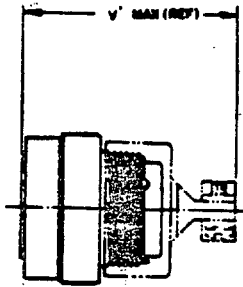


FIGURE 3

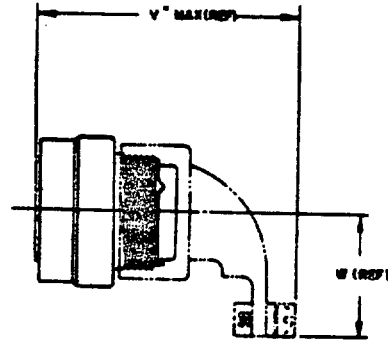
MIL-C-83723/14B(USAF)



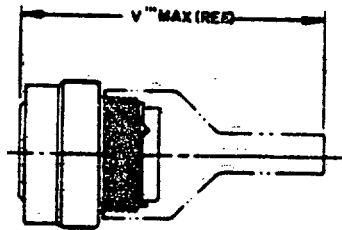
ASSEMBLED TO STRAIGHT BACKSHELL
LESS STRAIN RELIEF



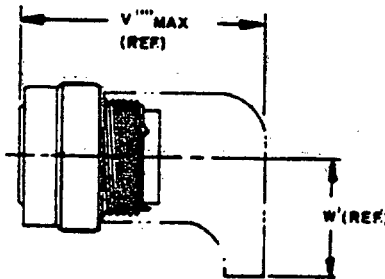
ASSEMBLED TO STRAIGHT BACKSHELL
WITH STRAIN RELIEF



ASSEMBLED TO 90° BACKSHELL
WITH STRAIN RELIEF

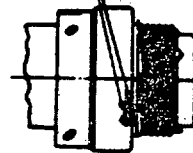


ASSEMBLED TO BACKSHELL
WITH STRAIGHT SHRINK STRAIN
RELIEF



ASSEMBLED TO BACKSHELL WITH
90° SHRINK STRAIN RELIEF

3 FULLY MATED COUPLING
INDICATION STRIPES EQUALLY
SPACED WITHIN .010, SHALL
ALIGN WITH 3 SIMILAR STRIPES
ON PLUG SHELL WHEN FULLY
MATED.



COUPLED POSITION

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:

- FOR ALTERNATE POLARIZING POSITIONS, THE CONNECTOR INSERT IS ROTATED IN RESPECT TO THE SHELL.
- IN "NORMAL POSITION" (POSITION "N") THE INSERT VERTICAL CENTER LINE COINCIDES WITH THE CENTER LINE OF THE MASTER KEY OF THE SHELL.
- IN "ALTERNATE POSITIONS" (POSITIONS "W", "X", "Y", AND "Z") THE PIN INSERT IS ROTATED α DEGREES CLOCKWISE RELATIVE TO $\frac{1}{2}$ OF THE MASTER KEY OF THE SHELL.
- 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.
- FOUR KEYS (MMC) AND INSERT SHALL BE LOCATED WITHIN .0035 EITHER SIDE OF (TP) RELATIVE TO MASTER KEY (MMC) AND SHELL O.D. (MMC).
- DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCE SHALL BE .XX \pm .010 AND .XXX \pm .005, ANGULAR X° \pm 1°-0' AND X° 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.

REQUIREMENTS:

Dimensions and configuration: See figures.

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

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

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

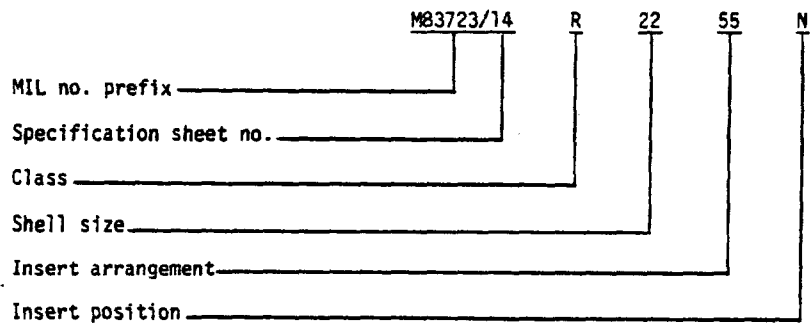
Connector assembly must include a backshell to meet the moisture sealing requirements.

- Ⓑ 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.

- Ⓑ Connector identification marking shall be in accordance with MIL-C-26482. Example: MS3476L----, M83723/14R----.

Part number example:



Custodian:
Air Force - 85

Preparing activity:
Air Force - 85

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

(Project 5935-F964-14)