

INCH-POUND

MIL-DTL-83723/90G  
23 January 2015  
SUPERSEDING  
MIL-DTL-83723/90F  
W/AMENDMENT 1  
6 June 2011

## DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, (CIRCULAR, ENVIRONMENT RESISTING),  
RECEPTACLE, (SOLDER OR WELD FLANGE MOUNT, THREADED COUPLING,  
SOLDER PIN CONTACT), (SERIES III, CLASSES H, J, L, N, P AND Y)

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-83723.

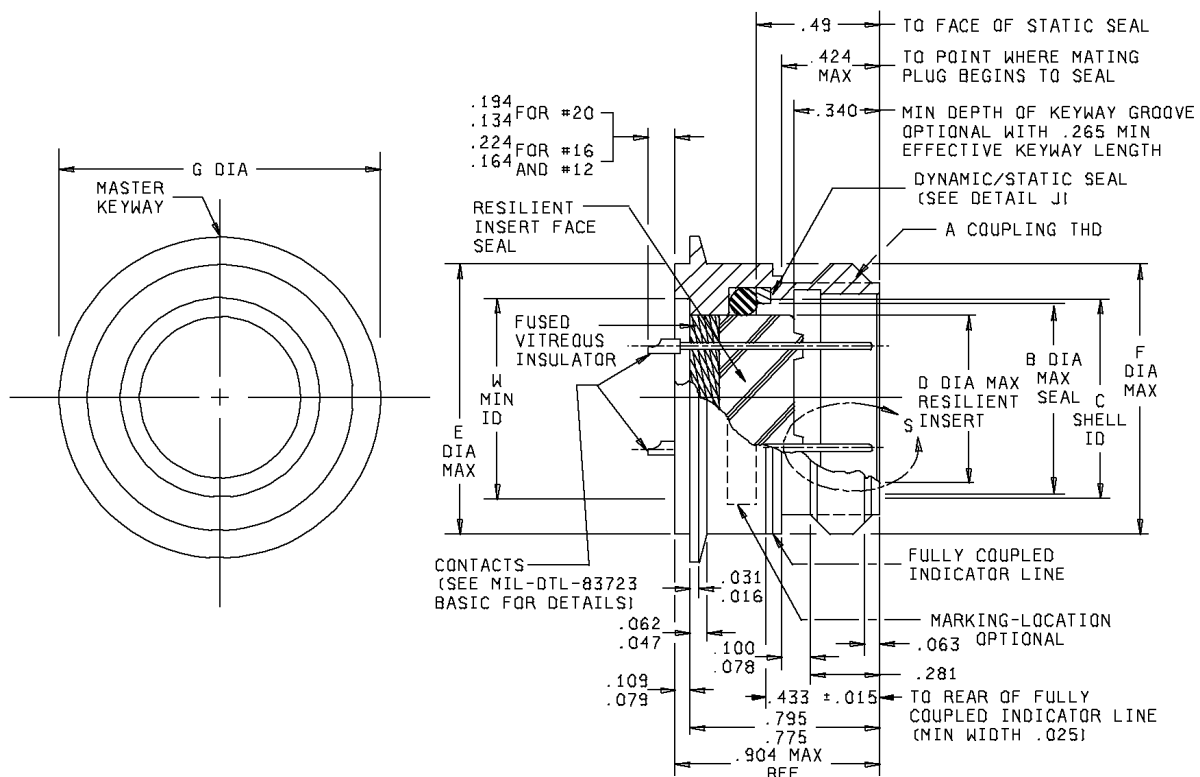
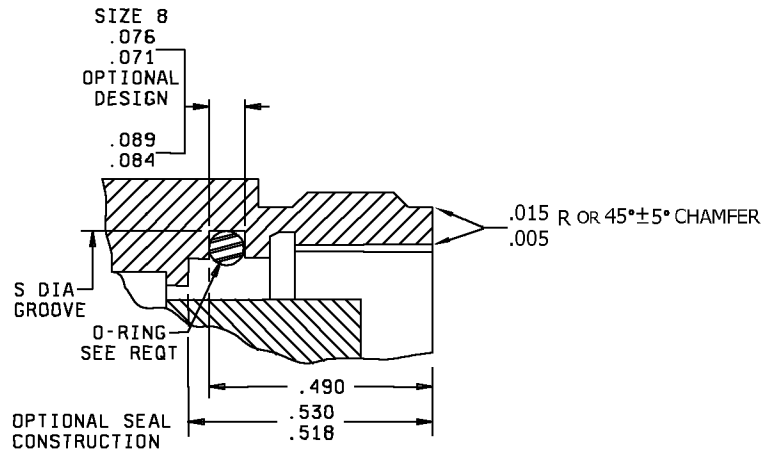


FIGURE 1. Dimensions and configurations.

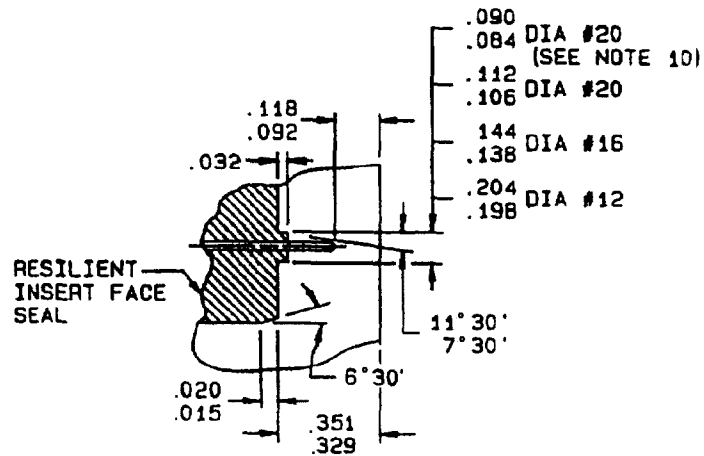
AMSC N/A

FSC 5935





DETAIL J



DETAIL S

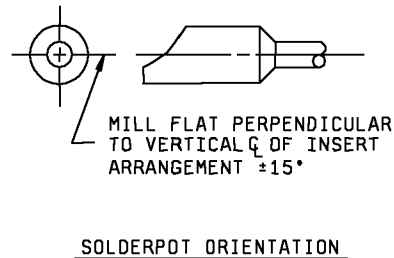
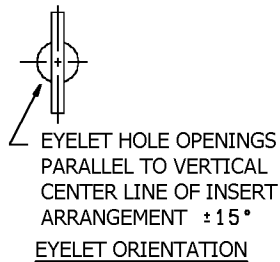


FIGURE 1. Dimensions and configurations - Continued.

MIL-DTL-83723/90G

Shell size	A Thread UNEF-2A	B	C	D	E	F
8	.562-24	.394	.418 .413	.290	.500 .494	.562
10	.688-24	.515	.535 .530	.388	.562 .556	.696
12	.875-20	.685	.700 .705	.558	.750 .744	.875
14	.938-20	.754	.774 .769	.627	.812 .806	.936
16	1.062-18	.881	.901 .896	.772	.937 .931	1.062
18	1.188-18	.987	1.007 1.002	.860	1.062 1.056	1.187
22	1.438-18	1.237	1.257 1.252	1.110	1.312 1.306	1.437

Shell size	G	W	X	S +.005 -.000
8	.723 .703	.400	.510	.490
10	.850 .830	.411	.572	.636
12	1.055 1.035	.581	.760	.806
14	1.100 1.080	.650	.822	.875
16	1.220 1.200	.765	.947	1.002
18	1.350 1.330	.864	1.072	1.108
22	1.600 1.580	1.133	1.322	1.358

FIGURE 1. Dimensions and configurations - Continued.

## MIL-DTL-83723/90G

Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.003	0.08	.112	2.84	.490	12.45	.765	19.43	1.035	26.29
.004	0.10	.118	3.00	.494	12.55	.769	19.53	1.055	26.80
.005	0.13	.134	3.40	.500	12.70	.772	19.61	1.056	26.82
.015	0.38	.138	3.51	.510	12.95	.774	19.66	1.062	26.97
.016	0.41	.144	3.66	.515	13.08	.775	19.69	1.072	27.23
.018	0.46	.148	3.76	.518	13.16	.795	20.19	1.080	27.43
.020	0.51	.160	4.07	.530	13.46	.806	20.47	1.100	27.94
.022	0.56	.164	4.17	.535	13.59	.812	20.62	1.108	28.14
.025	0.64	.194	4.93	.556	14.12	.822	20.88	1.110	28.19
.031	0.79	.198	5.03	.558	14.17	.830	21.08	1.133	28.78
.032	0.81	.204	5.18	.562	14.27	.850	21.59	1.187	30.15
.047	1.19	.224	5.69	.572	14.53	.860	21.84	1.200	30.48
.062	1.57	.265	6.73	.581	14.76	.864	21.95	1.220	30.99
.063	1.60	.281	7.14	.627	15.93	.875	22.23	1.237	31.42
.071	1.80	.290	7.37	.636	16.15	.881	22.38	1.252	31.80
.076	1.93	.329	8.36	.650	16.51	.896	22.76	1.257	31.93
.078	1.98	.340	8.64	.685	17.40	.901	22.89	1.306	33.17
.079	2.01	.351	9.92	.696	17.68	.904	22.96	1.358	34.49
.084	2.13	.388	9.86	.700	17.78	.931	23.65	1.312	33.32
.089	2.26	.394	10.01	.703	17.86	.936	23.77	1.322	33.58
.090	2.29	.400	10.16	.705	17.91	.937	23.80	1.330	33.78
.092	2.34	.411	10.44	.723	18.36	.947	24.05	1.350	34.29
.100	2.54	.413	10.49	.744	18.90	.987	25.07	1.358	34.49
.106	2.69	.418	10.62	.750	19.05	1.002	25.45	1.437	36.50
.109	2.77	.424	10.77	.754	19.15	1.007	25.58	1.580	40.13
		.433	11.00	.760	19.30	1.022	25.96	1.600	40.64

NOTES: (Notes 4 through 8 applicable to contacts only.)


1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are  $\pm .005$  inches (0.13 mm) for three place decimals and  $\pm .01$  inches (0.25 mm) for two place decimals and  $\pm 1^\circ$  for all angles.
4. Dimensions apply after plating.
5. Surface finish: 63 (  ) all over in accordance with ASME-B46.1, unless otherwise specified.
6. Remove all burrs and sharp edges .003 to .005 inches (0.076 to 0.127 mm) R.
7. Diameters to be concentric within .004 inches (0.102 mm) TIR.
8. Diameter in the same cross-sectional plane to be concentric with each other within .003 inches (0.076 mm) TIR.
9. Shell size 8 will not mate with MIL-DTL-26500 connectors.
10. See table I for contact cavities requiring this dimension.

FIGURE 1. Dimensions and configurations - Continued.

# MIL-DTL-83723/90G

## REQUIREMENTS:

Dimensions and configurations: See figure 1.

This connector mates with MIL-DTL-83723/86, /91, /95 and /97.

Insert arrangements and polarizing positions: See MIL-STD-1554 and table I.

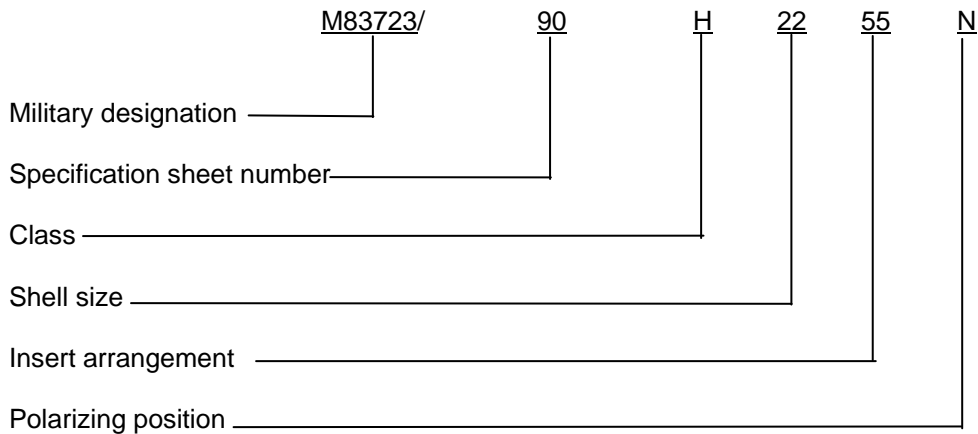
TABLE I. Insert arrangements requiring reduced diameters for raised seal barriers on contact cavities as indicated.

Shell size	Insert arrangements	Contact cavities
8	03, 98	1, 2, 3
10	06	1, 2, 3, 4, 5, 6

Connector accessories: See SAE-AS85049.

O-ring: See MIL-DTL-83723.

Part or Identifying Number (PIN) example:



Changes from previous issue. The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous issue were made. 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 and relationship to the last previous issue.

## MIL-DTL-83723/90G

Referenced documents. In addition to MIL-DTL-83723, this document references the following:

MIL-DTL-26500  
MIL-DTL-83723/86  
MIL-DTL-83723/91  
MIL-DTL-83723/95  
MIL-DTL-83723/97  
MIL-STD-1554  
ASME-B46.1  
SAE-AS85049

## CONCLUDING MATERIAL

### Custodians:

Army - CR  
Navy - AS  
Air Force – 85  
DLA - CC

### Preparing activity:

DLA - CC

### Review activities:

Army - AR, MI  
Navy - EC  
Air Force - 19, 99

(Project 5935-2015-041)

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>.