

INCH-POUND

MIL-DTL-83723/88E
1 October 2010
SUPERSEDING
MIL-DTL-83723/88D
23 May 2003

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, (CIRCULAR, ENVIRONMENT RESISTING),
RECEPTACLE, (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.

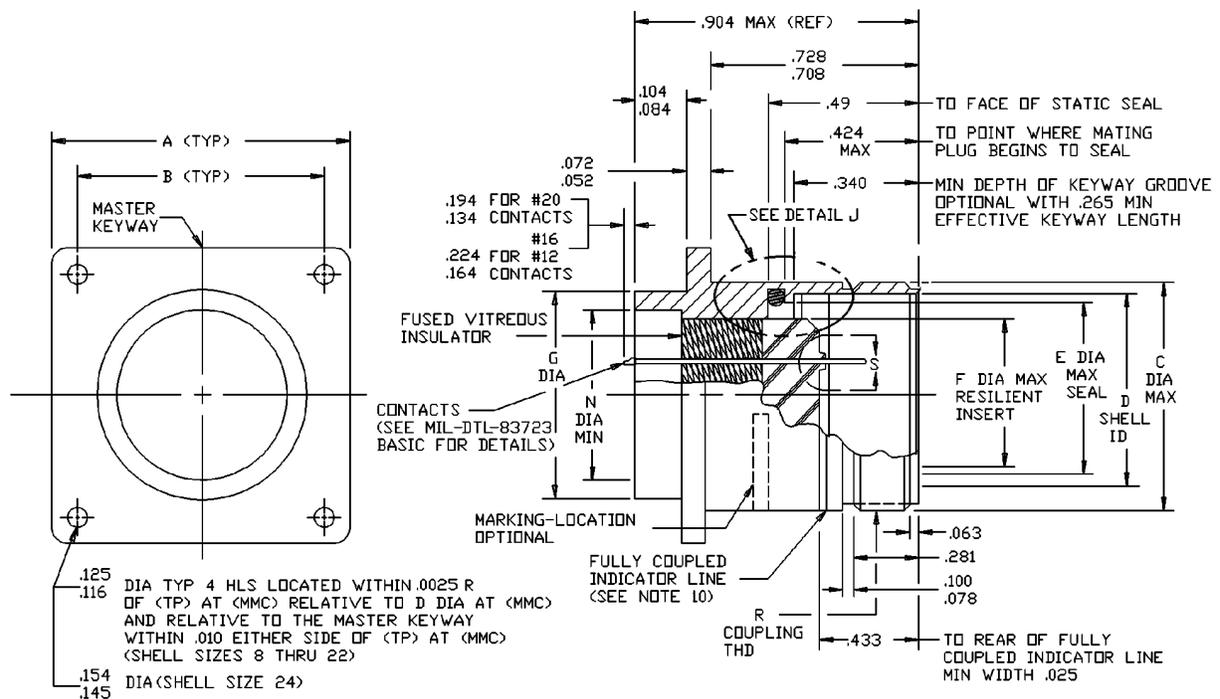


FIGURE 1. Dimensions and configurations.

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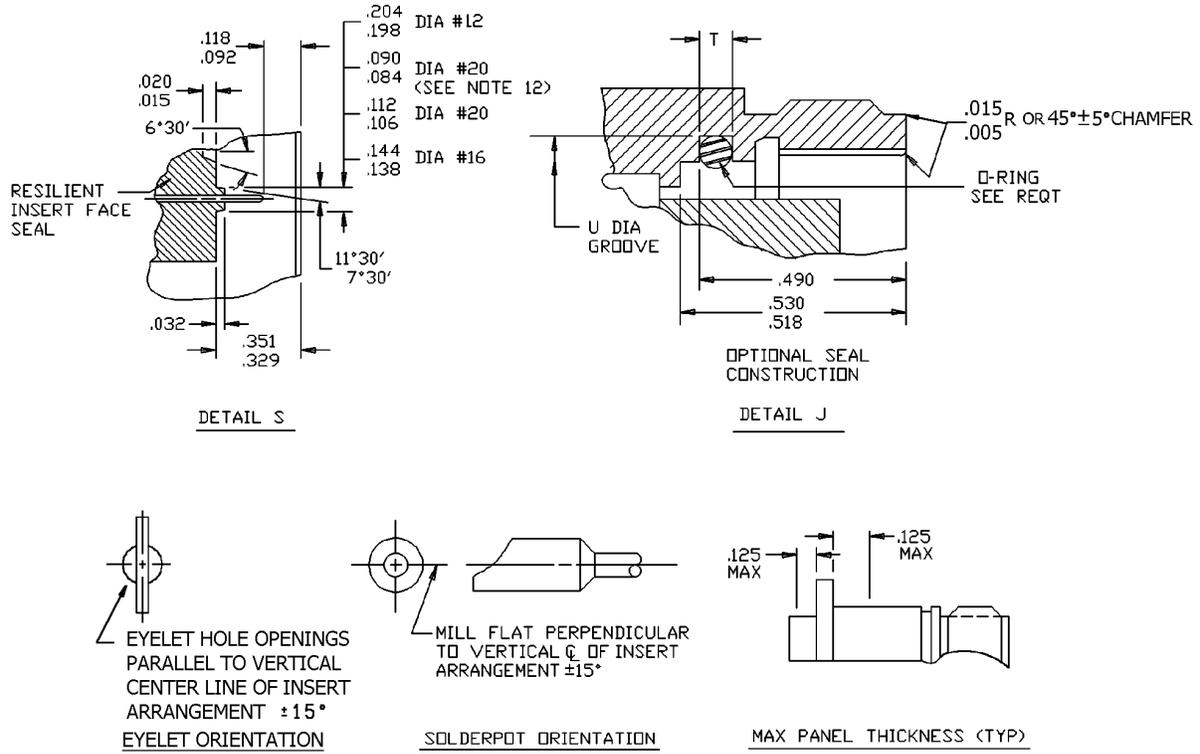


FIGURE 1. Dimensions and configurations – Continued.

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Shell size	A	B	C	D	E	F	G
8	.812	.594	.562	.418 .413	.394	.290	.500 .494
10	.937	.719	.696	.535 .530	.515	.388	.562 .556
12	1.031	.812	.875	.705 .700	.685	.558	.750 .744
14	1.125	.906	.936	.774 .769	.754	.627	.812 .806
16	1.250	.969	1.062	.901 .896	.881	.772	.937 .931
18	1.343	1.062	1.187	1.007 1.002	.987	.860	1.062 1.056
20	1.437	1.156	1.312	1.132 1.127	1.112	.985	1.187 1.181
22	1.562	1.250	1.437	1.257 1.252	1.237	1.110	1.312 1.306
24	1.703	1.375	1.562	1.382 1.377	1.362	1.235	1.437 1.431

FIGURE 1. Dimensions and configurations – Continued.

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Shell size	N	Panel cutout dia	R thread UNEF-2A	T	U +.005 -.000
8	.400	.572	.562-24	.076 .071	.490
10	.411	.706	.688-24	.089 .084	.636
12	.581	.885	.875-20	.089 .084	.806
14	.650	.946	.938-20	.089 .084	.875
16	.777	1.072	1.062-18	.089 .084	1.002
18	.864	1.197	1.188-18	.089 .084	1.108
20	1.034	1.322	1.312-18	.089 .084	1.233
22	1.133	1.447	1.438-18	.089 .084	1.358
24	1.284	1.572	1.562-18	.089 .084	1.483

FIGURE 1. Dimensions and configurations – Continued.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.000050	0.00127	.118	3.00	.500	12.70	.812	20.62	1.156	29.36
.0025	0.063	.125	3.18	.515	13.08	.860	21.84	1.181	30.00
.003	0.08	.134	3.40	.518	13.25	.875	22.22	1.187	30.15
.004	0.10	.138	3.51	.530	13.16	.881	22.38	1.197	30.40
.005	0.13	.144	3.66	.535	13.59	.885	22.48	1.233	31.32
.015	0.38	.145	3.68	.556	14.12	.896	22.76	1.235	31.37
.018	0.46	.154	3.91	.558	14.17	.901	22.89	1.237	31.42
.020	0.51	.164	4.17	.562	14.27	.904	22.96	1.250	31.75
.022	0.56	.194	4.93	.572	14.53	.906	23.01	1.252	31.80
.025	0.64	.198	5.03	.594	15.09	.931	23.65	1.257	31.93
.032	0.81	.204	5.18	.627	15.93	.937	23.80	1.306	33.17
.052	1.32	.224	5.69	.636	16.15	.946	24.03	1.312	33.32
.063	1.60	.265	6.73	.685	17.40	.969	24.61	1.322	33.58
.071	1.80	.281	7.14	.700	17.78	.9842	24.999	1.343	34.11
.072	1.83	.290	7.37	.705	17.91	.985	25.02	1.362	34.59
.076	1.93	.329	8.36	.706	17.93	.987	25.07	1.375	34.93
.078	1.98	.340	8.64	.708	17.98	1.002	25.45	1.432	36.37
.084	2.13	.351	8.92	.719	18.26	1.007	25.58	1.437	36.50
.089	2.26	.388	9.86	.728	18.49	1.031	26.19	1.447	36.75
.090	2.29	.394	10.01	.744	18.90	1.056	26.82	1.483	37.67
.092	2.34	.413	10.49	.750	19.05	1.062	26.97	1.562	39.67
.100	2.54	.418	10.62	.754	19.15	1.072	27.23	1.572	39.93
.104	2.64	.424	10.77	.769	19.43	1.108	28.14	1.703	43.26
.106	2.69	.433	11.00	.772	19.61	1.110	28.19		
.112	2.84	.490	12.45	.774	19.66	1.112	28.24		
.116	2.95	.494	12.55	.806	20.47	1.125	28.58		

NOTES: (Notes 4 through 9 applicable to contacts only).

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are ± 0.005 inches (0.13 mm) for three place decimals, ± 0.01 inches (0.25mm) for two place decimals and $\pm 1^\circ$ for all angles.
4. Contact finish: Gold plate .000050 inch (0.00127 mm) minimum in accordance with ASTM B488. A suitable underplating shall be used. Silver shall not be used. Finish is applied after sealing.
5. Dimensions apply after plating.
6. Surface finish: 63 ($\sqrt{\text{ }}$) all over in accordance with ASME-B46.1, unless otherwise specified.
7. Remove all burrs and sharp edges .003 to .005 inches (0.076 to 0.127 mm) R.
8. Diameters to be concentric within .004 inches (0.102 mm) TIR.
9. Diameters in the same cross-sectional plane to be concentric with each other .003 inches (0.076 mm) TIR.
10. Coupling indicator line shall be color coded red.
11. Shell size 8 will not mate with MIL-DTL-26500 connectors.
12. See table I for contact cavities requiring this dimension.

FIGURE 1. Dimensions and configurations – Continued.

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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.

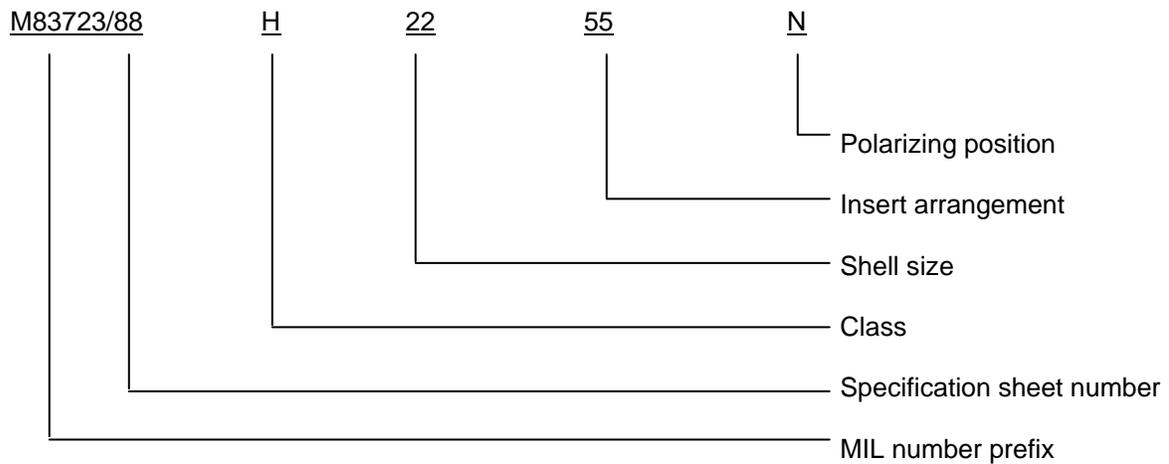
TABLE I. Insert arrangements requiring reduced diameters for raised seal barriers on contact cavities as indicated.

Shell size	Insert arrangement	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. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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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
ASTM B488
SAE-AS85049

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2010-051)

Review activities:

Army - AR, MI
Navy - EC
Air Force - 19, 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 <https://assist.daps.dla.mil>.