

INCH-POUND

MIL-DTL-83723/89G
w/AMENDMENT 1
12 March 2024
SUPERSEDING
MIL-DTL-83723/89G
23 January 2015

DETAIL SPECIFICATION SHEET

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

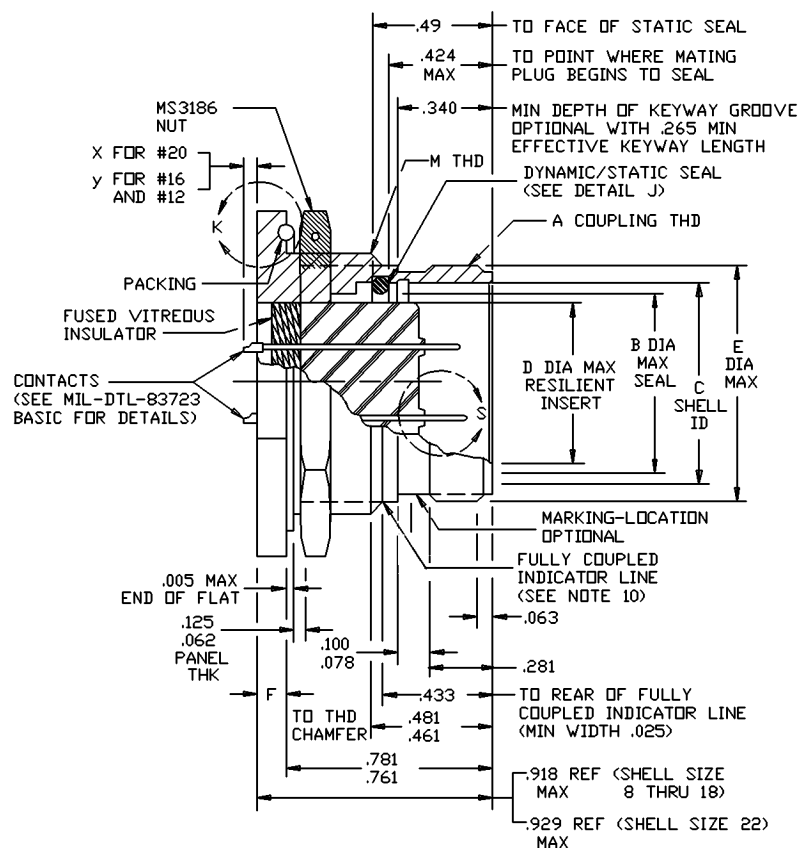


FIGURE 1. Dimensions and configurations.



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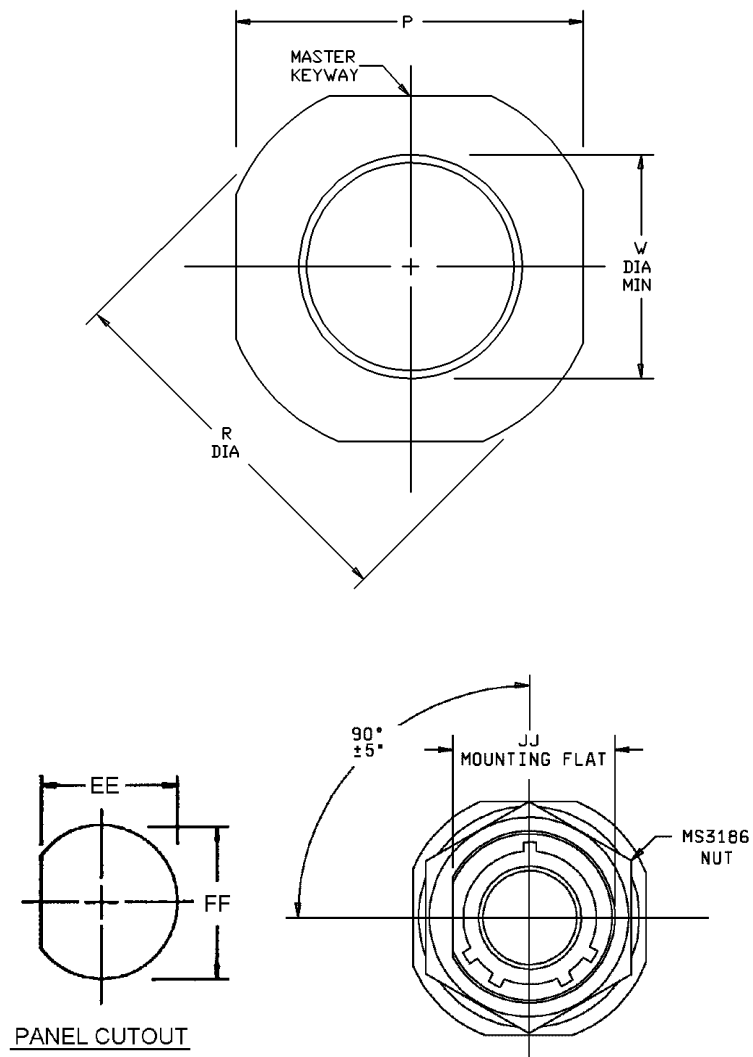
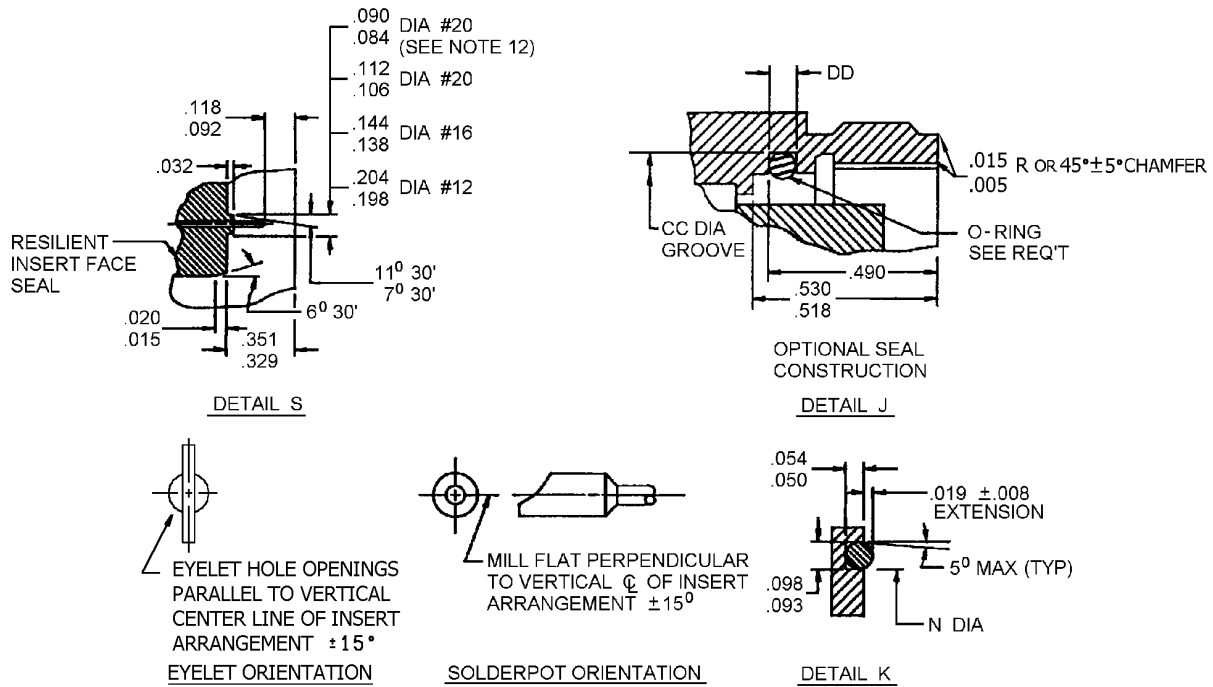


FIGURE 1. Dimensions and configurations – Continued.

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Shell size	A thread	B	C	D	E	F
08	.562-24 UNEF-2A	.394	.418 / .413	.290	.562	.137 / .097
10	.688-24 UNEF-2A	.515	.535 / .530	.388	.696	.137 / .097
12	.875-20 UNEF-2A	.685	.700 / .705	.558	.875	.137 / .097
14	.938-20 UNEF-2A	.754	.774 / .769	.627	.936	.137 / .097
16	1.062-18 UNEF-2A	.881	.901 / .896	.772	1.062	.137 / .097
18	1.188-18 UNEF-2A	.987	1.007 / 1.002	.860	1.187	.137 / .097
22	1.438-18 UNEF-2A	1.237	1.257 / 1.252	1.110	1.437	.148 / .128

Shell size	M thread	N	P	R	W	X
08	.625-20 UN-2A	.670	.980 / .949	1.078 / 1.047	.400	.180 / .120
10	.750-20 UNEF-2A	.796	1.104 / 1.073	1.192 / 1.162	.411	.180 / .120
12	.938-20 UNEF-2A	.984	1.291 / 1.260	1.380 / 1.349	.581	.180 / .120
14	1.000-20 UNEF-2A	1.046	1.391 / 1.360	1.516 / 1.485	.650	.180 / .120
16	1.125-18 UNEF-2A	1.171	1.516 / 1.485	1.641 / 1.610	.777	.180 / .120
18	1.250-18 UNEF-2A	1.296	1.641 / 1.610	1.766 / 1.735	.864	.180 / .120
22	1.500-18 UNEF-2A	1.609	1.954 / 1.923	2.078 / 2.047	1.133	.169 / .109

FIGURE 1. Dimensions and configurations – Continued.

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Shell size	Y	CC + .005 - .000	DD	EE	FF	JJ
08	.210 / .150	.490	.076 / .071	.605	.635	.596 / .590
10	.210 / .150	.636	.089 / .084	.730	.760	.721 / .715
12	.210 / .150	.806	.089 / .084	.917	.947	.908 / .902
14	.210 / .150	.875	.089 / .084	.980	1.010	.971 / .965
16	.210 / .150	1.002	.089 / .084	1.105	1.135	1.096 / 1.090
18	.210 / .150	1.108	.089 / .084	1.230	1.260	1.220 / 1.214
22	.199 / .139	1.358	.089 / .084	1.480	1.510	1.470 / 1.464

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 $\pm .005$ inches (0.13 mm) for three place decimal, $\pm .01$ inches (0.25 mm) 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 () 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
08	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:

M83723/ 89 H 08 03 N

M83723/ Military designation
89 Specification sheet number
H Class
08 Shell size
03 Insert arrangement
N Polarizing position

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

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

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA – CC

(Project 5935-2024-098)

Review activities:

Army – AR, AV, MI
Navy – EC
Air Force – 19

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>.