

METRIC

MIL-DTL-38999/24J  
w/AMENDMENT 2  
5 August 2016  
SUPERSEDING  
MIL-DTL-38999/24J  
w/AMENDMENT 1  
10 April 2015

### DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, CIRCULAR, RECEPTACLE, THREADED,  
JAM-NUT MOUNTING, REMOVABLE CRIMP CONTACTS, SERIES III, METRIC

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-38999.

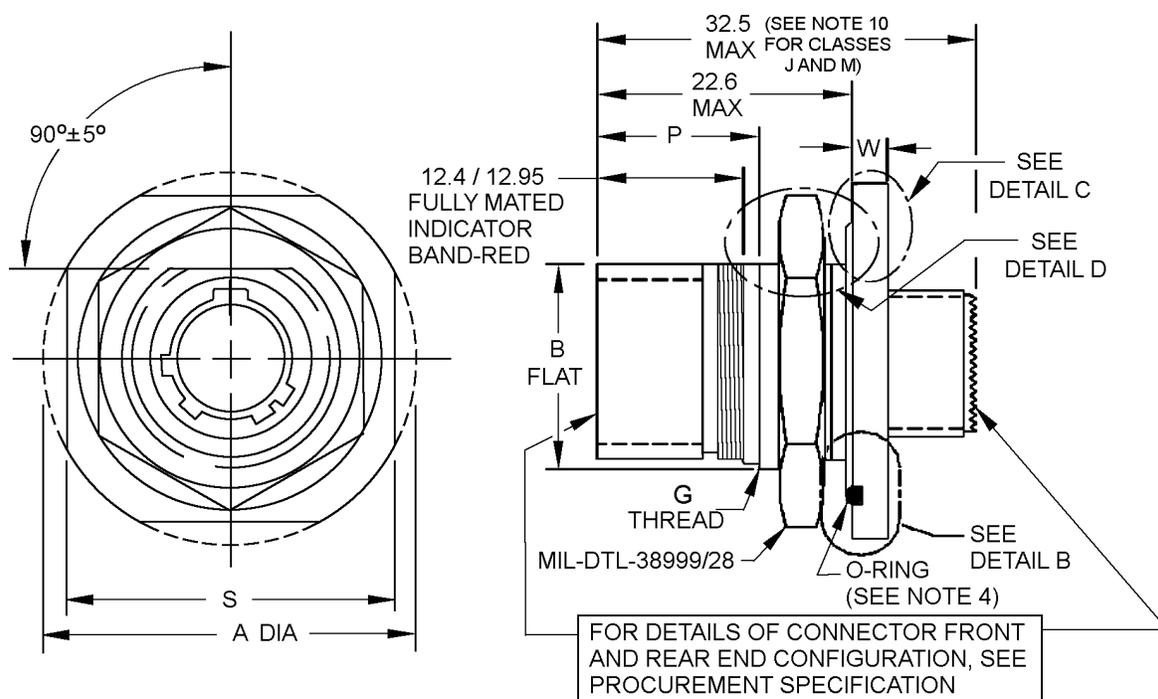


FIGURE 1. Receptacle, classes F, G, J, K, L, M, R, S, T, W and Z.

AMSC N/A

FSC 5935



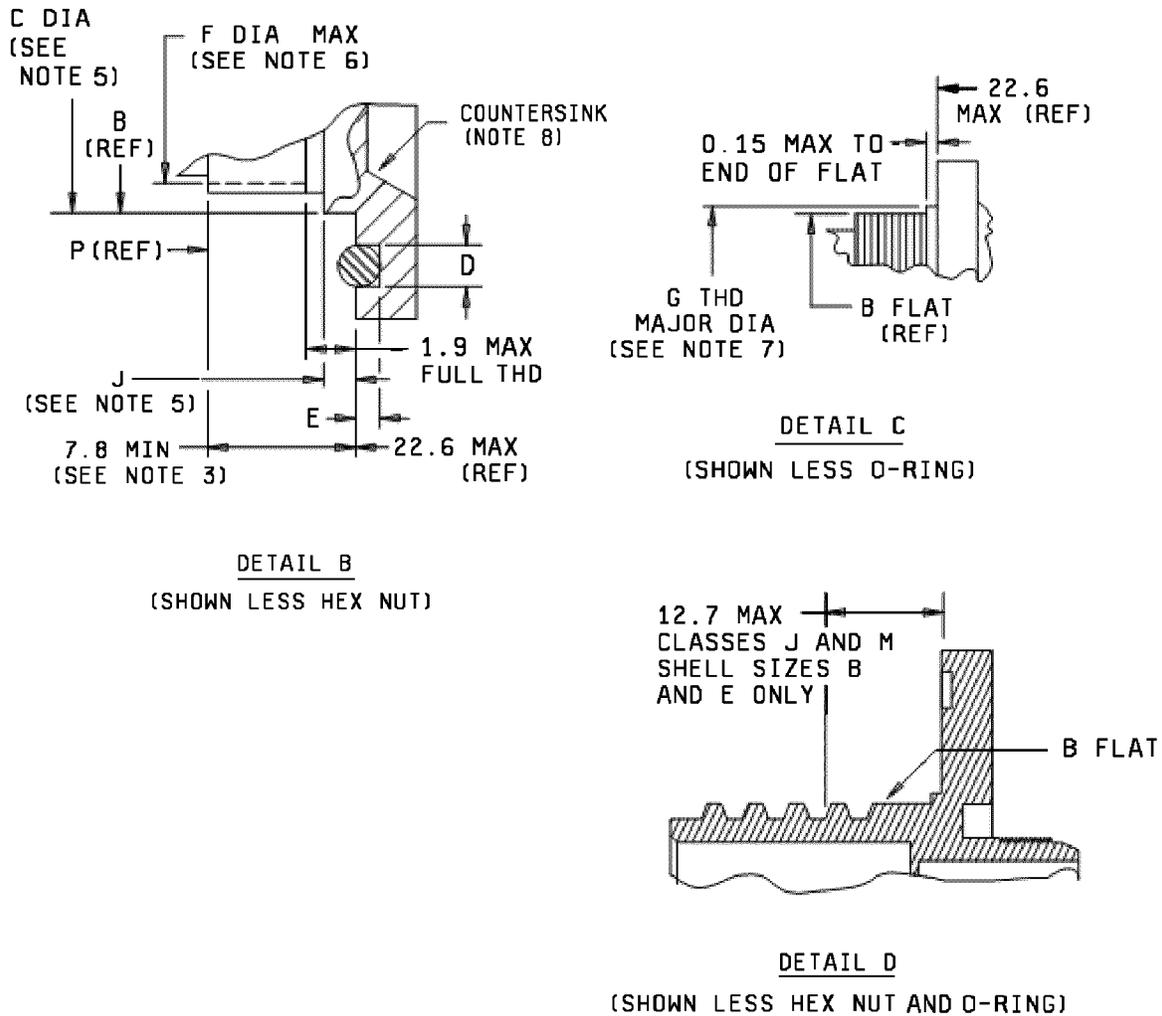


FIGURE 1. Receptacle, classes F, G, J, K, L, M, R, S, T, W and Z - Continued.

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Shell size	Shell size code	A dia $\pm 0.3$	B flat $+ 0.10$ $- 0.15$	C dia $+ 0.1$ $- 0.2$	D $+ 0.13$ $- 0.03$	E $\pm 0.13$	F dia max
9	A	30.2 (1.189)	16.53 (.651)	17.4 (.685)	2.39 (.094)	1.14 (.045)	15.9 (.626)
11	B	34.9 (1.374)	19.07 (.751)	20.6 (.811)	2.39 (.094)	1.14 (.045)	18.8 (.740)
13	C	38.1 (1.500)	23.82 (.938)	25.4 (1.000)	2.39 (.094)	1.14 (.045)	23.8 (.937)
15	D	41.3 (1.626)	26.97 (1.062)	28.5 (1.122)	2.39 (.094)	1.14 (.045)	26.8 (1.055)
17	E	44.5 (1.752)	30.15 (1.187)	---	2.39 (.094)	1.14 (.045)	30.8 (1.213)
19	F	49.2 (1.937)	33.32 (1.312)	---	3.58 (.141)	1.91 (.075)	33.8 (1.331)
21	G	52.4 (2.063)	36.50 (1.437)	---	3.58 (.141)	1.91 (.075)	36.8 (1.449)
23	H	55.6 (2.189)	39.67 (1.562)	41.2 (1.622)	3.58 (.141)	1.91 (.075)	39.8 (1.567)
25	J	58.7 (2.311)	42.85 (1.687)	44.4 (1.748)	3.58 (.141)	1.91 (.075)	42.8 (1.685)

FIGURE 1. Receptacle, classes F, G, J, K, L, M, R, S, T, W and Z - Continued.

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Shell size	Shell size code	G thread	J + 0.0 - 0.71	P + 0.6 - 0.0	S ± 0.4	W + 0.9 - 0.1	O-ring PIN M25988/3 (see note 4)	External bending moment classes J and M (Newton-Meters)
9	A	M17x1-6g 0.100R	1.5 (.059)	14.1 (.555)	27.0 (1.063)	2.2 (.087)	-019	8.5
11	B	M20x1-6g 0.100R	1.5 (.059)	14.1 (.555)	31.8 (1.252)	2.2 (.087)	-022	14.1
13	C	M25x1-6g 0.100R	1.5 (.059)	14.1 (.555)	34.9 (1.374)	2.2 (.087)	-024	19.8
15	D	M28x1-6g 0.100R	1.5 (.059)	14.1 (.555)	38.1 (1.500)	2.2 (.087)	-026	28.2
17	E	M32x1-6g 0.100R (see note 2)	---	14.1 (.555)	41.3 (1.626)	2.2 (.087)	-028	36.7
19	F	M35x1-6g 0.100R	---	14.1 (.555)	46.0 (1.811)	3.0 (.118)	-128	45.2
21	G	M38x1-6g 0.100R	---	14.1 (.555)	49.2 (1.937)	3.0 (.118)	-130	53.7
23	H	M41x1-6g 0.100R	1.5 (.059)	14.1 (.555)	52.4 (2.063)	3.0 (.118)	-132	62.1
25	J	M44x1-6g 0.100R	1.5 (.059)	14.1 (.555)	55.6 (2.189)	3.0 (.118)	-134	73.4

NOTES:

1. Dimensions are in millimeters. Inch equivalents are given for information only.
2. Modified major diameter: 31.95 - 31.80.
3. Panel thickness: 3.2 - 1.58.
4. O-ring material: See requirements.
5. C and J dimensions define feature required for proper fit in type E panel.
6. F diameter defines thread start.
7. This dimension applies to sizes 17, 19, and 21 only (C and G diameters are the same).
8. Countersink may be incorporated to accept accessory configuration in accordance with MIL-DTL-38999.
9. Classes J and M should not be used when critical connector to panel bonding (below 10 millivolts) is required.
10. For classes J and M only, overall shell length is increased to 33.0 mm (1.300 in) max.
11. For classes J and M only, surface finish for the MIL-DTL-38999/28 hex nut supplied with the connector shall be the same finish as that specified by the connector class designator, or may be unplated.
12. The specified red band location is measured from the front edge of the shell to the back edge of the red band.

FIGURE 1. Receptacle, classes F, G, J, K, L, M, R, S, T, W and Z - Continued.

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REQUIREMENTS:

Dimensions and configuration: See figure 1. Interface dimensions shall be in accordance with MIL-DTL-38999.

This connector mates with MIL-DTL-38999/26.

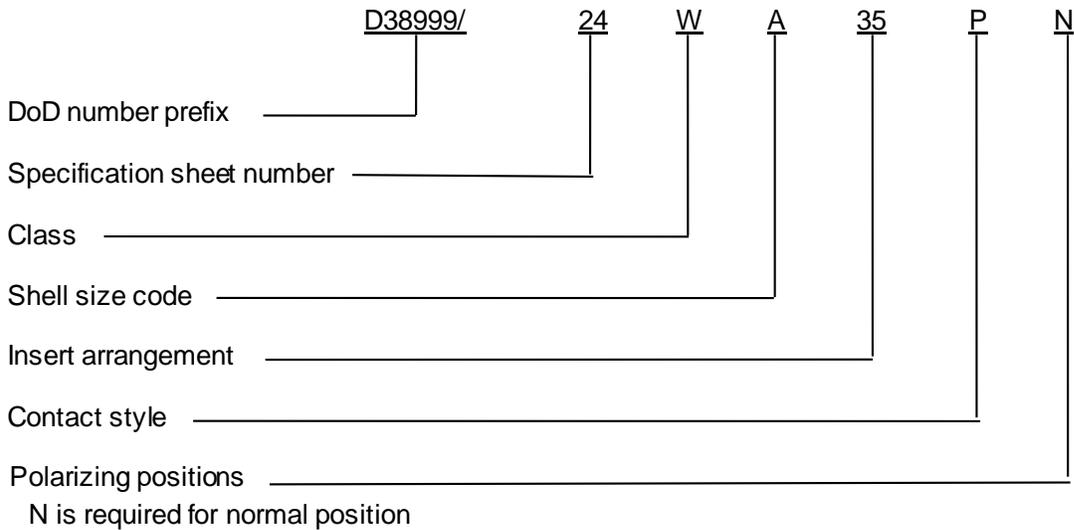
O-ring material shall be in accordance with MIL-DTL-25988, Type 1, Class 1, Grade 60.

Hex nut in accordance with MIL-DTL-38999/28 shall be provided with jam-nut receptacle.

For insert arrangements: See MIL-STD-1560.

Connector accessories: See SAE-AS85049.

Part or Identifying Number (PIN) example:



Class F is not for Navy use and is inactive for Air Force new design use.

NOTE: The term PIN is equivalent to the term (part number, identification number, and type designator) which was previously used in this specification.

Qualification required: The activity responsible for the qualified products list for this specification sheet is DLA Land and Maritime-VQ, P.O. Box 3990, Columbus, Ohio 43218-3990.

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 notation.

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Referenced documents. In addition to MIL-DTL-38999, this document references the following:

MIL-STD-1560  
MIL-DTL-25988  
MIL-DTL-38999/26  
MIL-DTL-38999/28  
SAE-AS85049

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2016-155)

Review activities:

Army - AR, MI  
Navy - EC, MC, OS  
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.dla.mil>.