

METRIC

MIL-DTL-38999/20G  
w/AMENDMENT 3  
9 April 2015  
SUPERSEDING  
MIL-DTL-38999/20G  
w/AMENDMENT 2  
31 October 2011

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, CIRCULAR, RECEPTACLE, THREADED,  
WALL MOUNTING FLANGE, 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.

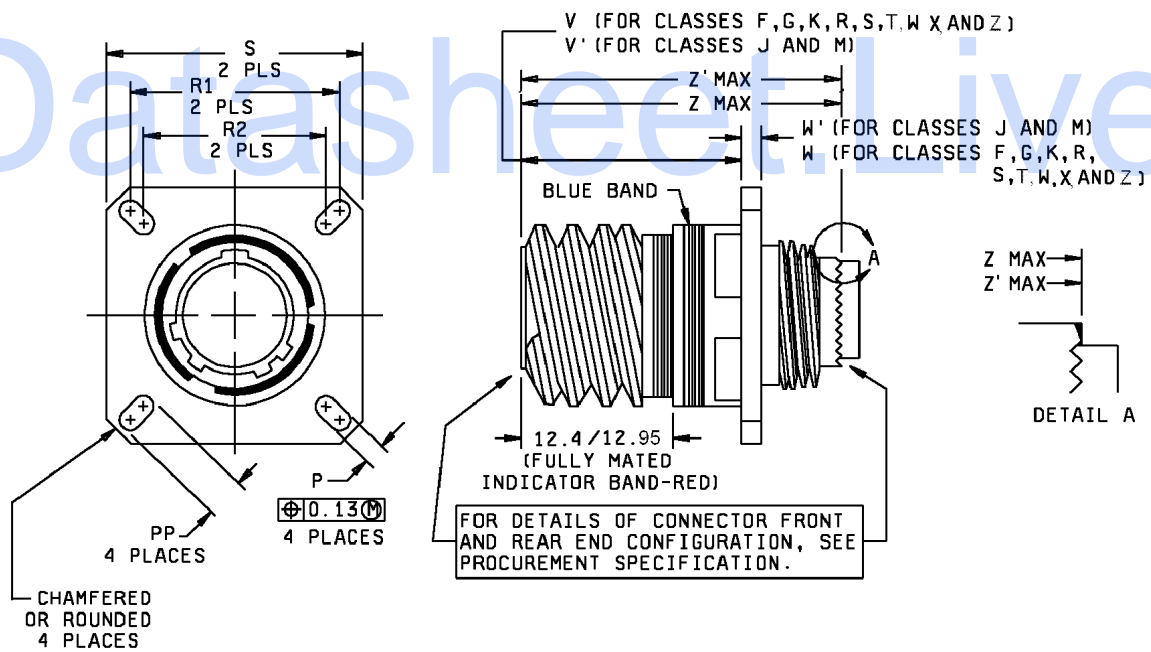


FIGURE 1. Receptacle, classes F, G, J, K, M, R, S, T, W, X and Z.



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Shell size	Shell size code	M max front or rear panel thickness (see note 5)	P ± 0.20	PP ± 0.20	R1 (see note 3)	R2 (see note 4)	S ± 0.3
9	A	5.80 (.228)	3.25 (.128)	5.49 (.216)	18.26 (.719)	15.09 (.594)	23.8 (.937)
11	B		3.25 (.128)	4.93 (.194)	20.62 (.812)	18.26 (.719)	26.2 (1.031)
13	C		3.25 (.128)	4.93 (.194)	23.01 (.906)	20.62 (.812)	28.6 (1.126)
15	D		3.25 (.128)	4.39 (.173)	24.61 (.969)	23.01 (.906)	31.0 (1.220)
17	E		3.25 (.128)	4.93 (.194)	26.97 (1.062)	24.61 (.969)	33.3 (1.311)
19	F		3.25 (.128)	4.93 (.194)	29.36 (1.156)	26.97 (1.062)	36.5 (1.437)
21	G	5.00 (.197)	3.25 (.128)	4.93 (.194)	31.75 (1.250)	29.36 (1.156)	39.7 (1.563)
23	H		3.91 (.154)	6.15 (.242)	34.93 (1.375)	31.75 (1.250)	42.9 (1.689)
25	J		3.91 (.154)	6.15 (.242)	38.10 (1.500)	34.93 (1.375)	46.0 (1.811)

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

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Shell size	Shell size code	V + 0.00 - 1.25	V' + 1.4 - 0.0	W	W'	Z max	Z' max (classes J and M only)
9	A	20.83	19.5	2.5/2.1	3.65/2.1	31.5 (1.240)	32.0 (1.260)
11	B	20.83	19.5	2.5/2.1	3.65/2.1	31.5 (1.240)	32.0 (1.260)
13	C	20.83	19.5	2.5/2.1	3.65/2.1	31.5 (1.240)	32.0 (1.260)
15	D	20.83	19.5	2.5/2.1	3.65/2.1	31.5 (1.240)	32.0 (1.260)
17	E	20.83	19.5	2.5/2.1	3.65/2.1	31.5 (1.240)	32.0 (1.260)
19	F	20.83	19.5	2.5/2.1	3.65/2.1	31.5 (1.240)	32.0 (1.260)
21	G	20.07	18.7	3.2/2.1	4.35/2.1	31.5 (1.240)	32.0 (1.260)
23	H	20.07	18.7	3.2/2.1	4.35/2.1	31.5 (1.240)	32.0 (1.260)
25	J	20.07	18.7	3.2/2.1	4.35/2.1	31.5 (1.240)	32.0 (1.260)

NOTES:

1. Dimensions are in millimeters.
2. Inch equivalents are given for information only.
3. Front or rear panel mounting.
4. Front panel mounting only.
5. To ensure full mating of the plug or the backshell, it is recommended that the front or rear mounting panel thickness not exceed the M values specified in the table.

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

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REQUIREMENTS:

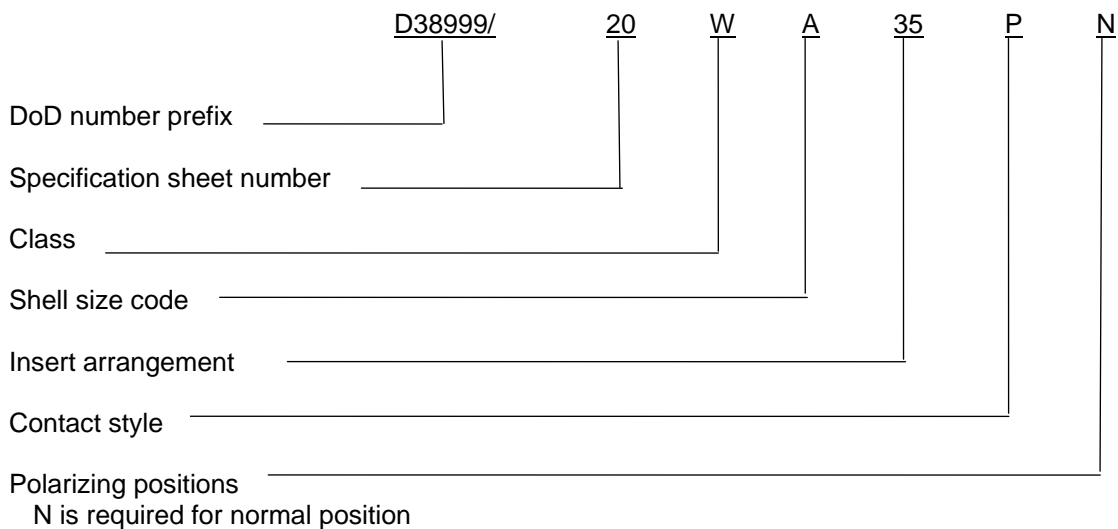
Dimensions and configuration: See figure 1. Interface dimensions shall be in accordance with MIL-DTL-38999.

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

For insert arrangements: See MIL-STD-1560.

Connector accessories: See SAE-AS85049.

Part or Identifying Number (PIN) example:



Restrictions: 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 product list for this specification sheet is DLA Land and Maritime-VQ, 3990 East Broad Street, 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.

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

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

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2015-115)

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>.