

METRIC

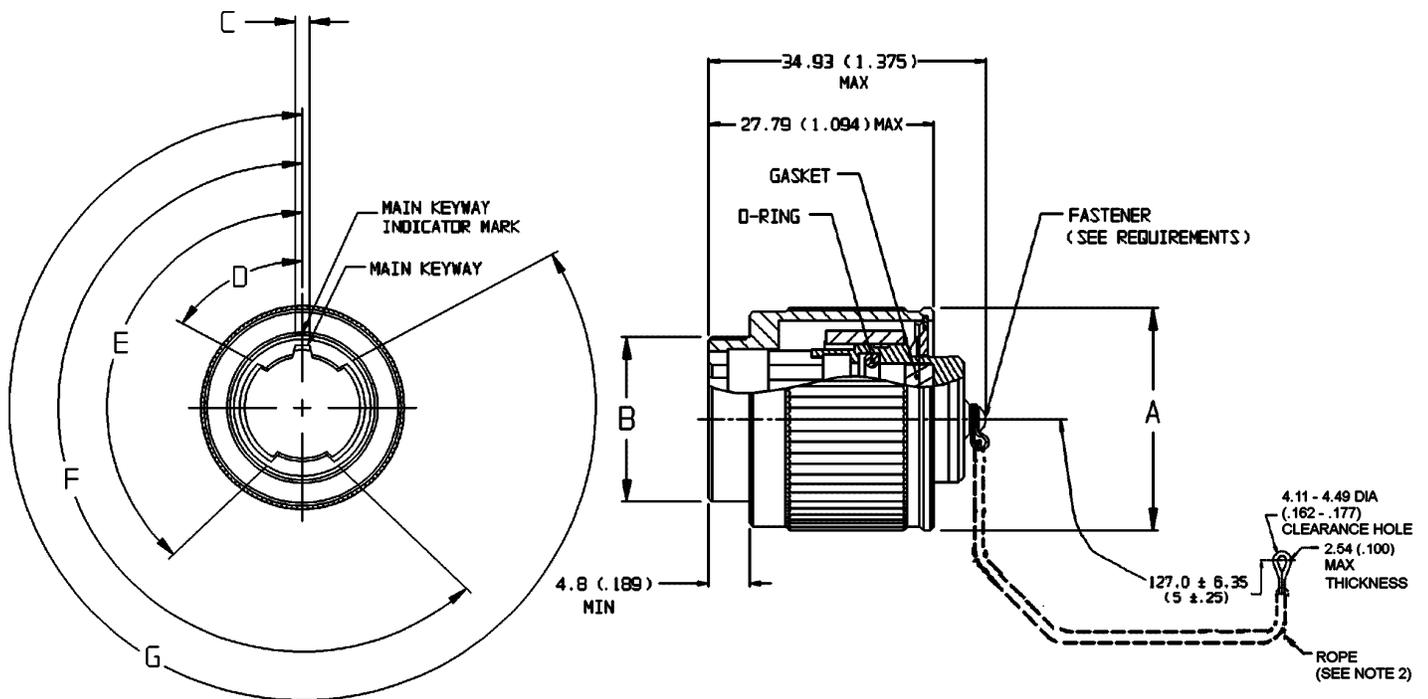
MIL-DTL-38999/52B
 4 October 2013
 SUPERSEDING
 MIL-DTL-38999/52A
 30 May 2008

DETAIL SPECIFICATION SHEET

CONNECTORS, ELECTRICAL, CIRCULAR, COVER,
 PROTECTIVE, RECEPTACLE, MIL-DTL-38999, SERIES IV

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.



mm	Inches	mm	Inches	mm	Inches
4.80	.189	27.64	1.088	34.93	1.375
6.35	.25	27.79	1.094	127.00	5.00

STYLE R (WITH ROPE)

FIGURE 1. Protective cover, receptacle, all classes.

MIL-DTL-38999/52B

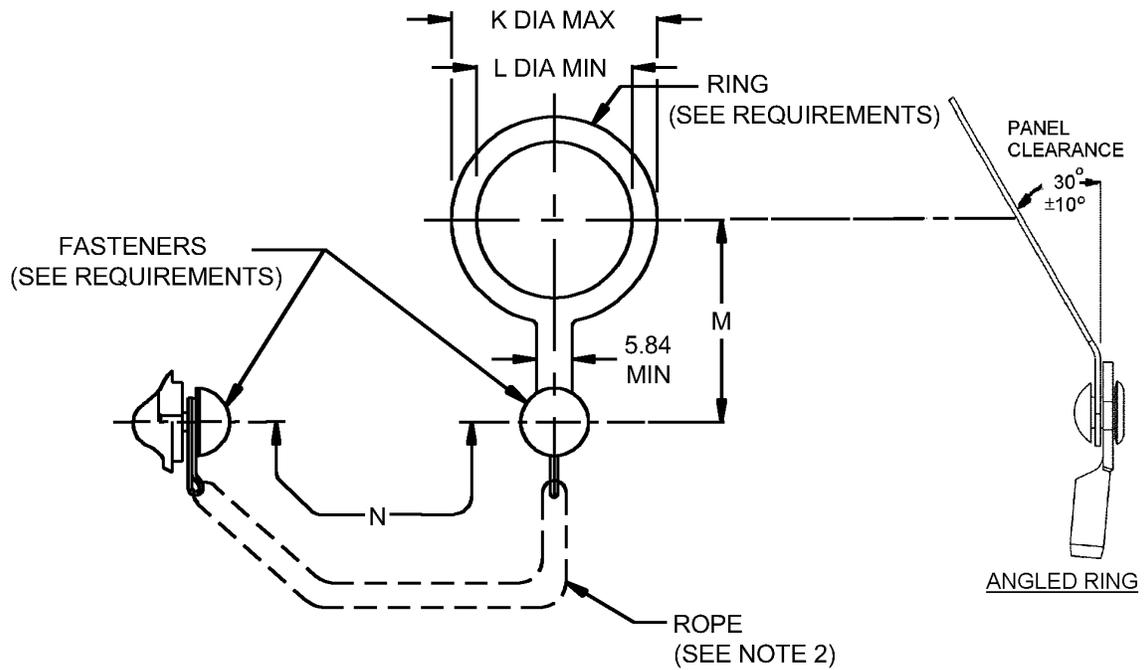
Dimensions			
Shell size	A dia max	D dia max	C BSC
11	26.59 (1.047)	19.18 (.775)	2.84 (.112)
13	30.99 (1.220)	22.86 (.900)	2.87 (.113)
15	34.19 (1.346)	26.42 (1.040)	3.37 (.133)
17	37.39 (1.472)	29.21 (1.150)	3.37 (.133)
19	40.21 (1.583)	32.39 (1.275)	3.89 (.153)
21	43.31 (1.705)	35.56 (1.400)	3.89 (.153)
23	46.50 (1.831)	38.74 (1.525)	4.39 (.173)
25	49.71 (1.957)	41.91 (1.650)	4.39 (.173)

Dimensions				
Shell size	D° BSC REF	E° BSC REF	F° BSC REF	G° BSC REF
11	47° 21'	148° 21'	211° 47'	312° 39'
13	46° 34'	148° 22'	211° 38'	313° 26'
15	46° 23'	148° 35'	211° 25'	313° 37'
17	46° 11'	148° 47'	211° 13'	313° 49'
19	45° 33'	149° 27'	210° 33'	314° 27'
21	45° 28'	149° 29'	210° 31'	314° 32'
23	45° 25'	149° 29'	210° 31'	314° 35'
25	45° 30'	149° 34'	210° 26'	314° 30'

NOTES:

1. Dimensions are in millimeters. Inch equivalents are given for information only.
2. Method of attachment to cover and / or ring is optional.
3. Protective covers shall fit receptacles with pin or socket contacts configured in any polarization position.

FIGURE 1. Protective cover, receptacle, all classes – Continued.



STYLE N (WITH ROPE AND RING)

Dimensions				
Shell size	K dia max	L dia min	M	N
11	32.0 (1.26)	21.97 (.86)	21.00 / 18.00 (.83/.71)	127.00 (5.00)
13	37.0 (1.46)	25.12 (.99)	22.50 / 18.50 (.89/.73)	127.00 (5.00)
15	40.0 (1.57)	29.92 (1.18)	25.00 / 23.50 (.98/.93)	127.00 (5.00)
17	44.0 (1.73)	32.00 (1.26)	31.00 / 25.00 (1.22/.98)	127.00 (5.00)
19	46.0 (1.81)	36.27 (1.43)	32.50 / 26.50 (1.28/1.04)	127.00 (5.00)
21	49.0 (1.93)	38.25 (1.51)	34.00 / 28.00 (1.34/1.10)	127.00 (5.00)
23	54.0 (2.13)	42.62 (1.68)	35.50 / 30.00 (1.40/1.18)	127.00 (5.00)
25	56.0 (2.20)	44.45 (1.75)	37.50 / 31.50 (1.48/1.24)	127.00 (5.00)

FIGURE 2. Protective cover, receptacle, rope and ring assembly, all classes.

NOTES:

1. Dimensions are in millimeters. Inch equivalents are given for information only.
2. Method of attachment to cover and/or ring is optional.
3. Protective covers shall fit receptacles configured in any polarization position.

FIGURE 2. Protective cover, receptacle, rope and ring assembly, all classes – Continued.

REQUIREMENTS:

Dimensions and configurations: See figures 1 and 2.

Materials:

- Cover - Classes C, F, G, R, W and X: Impact extruded or machined aluminum alloy.
Classes P, T and Z: Impact extruded or machined aluminum alloy.
Classes H, K, N, S and Y: Corrosion resistant steel.
Classes J and M: High performance virgin resin in accordance with MIL-DTL-38999.
Class F: Impact extruded or machined aluminum alloy.
(Cover base materials only. For finishes or surface treatments, see MIL-DTL-38999.)
- Gasket - Silicone elastomer.
- Ring - Corrosion resistant steel, passivated, 1.020 mm (0.04 inches) maximum thickness.
- Rope - Insulated stainless steel, passivated.
Insulation shall withstand 200°C (392°F) environment.
- Fastener - Stainless steel, passivated.
Option: Aluminum integral to cover.

Mating connectors: MIL-DTL-38999, series IV.

Gasket shall be bonded to cover, or mechanically retained.

Rope shall rotate freely on fastener.

Fastener tensile strength: The protective cover and rope assembly shall withstand a dead weight tensile load of 11.33 kg (25 pounds) applied to both axial and longitudinal directions. The load shall be applied at the end of the rope assembly and held for 5 minutes. There shall be no separation of the rope assembly from the protective cover or damage to the rope assembly. Both axial and longitudinal directions shall be 11.33 kg (25 pounds). The load shall be applied to the end of the rope.

Air Leakage: Testing shall be in accordance with EIA-364-02, except the minimum period of measurement shall be 10 seconds. The air leakage rate shall be no greater than 1 atmospheric cubic inch per hour ($4.55 \times 10^{-3} \text{ cm}^3/\text{s}$). Protective covers shall be mated to connectors having either contacts or inserts removed so that a pressure of 10 lbf/in² (.703 Kg/cm²) can be applied against the insides of the protective covers or stowage receptacles.

MIL-DTL-38999/52B

Qualification (all classes): Qualification shall be in accordance with MIL-DTL-38999, except only the following tests shall be required:

- Examination of product
- Coupling torque
- Humidity
- Salt spray (corrosion)
- Fastener tensile strength (see requirement)
- Air leakage

Qualification (classes J and M only): Qualification shall be in accordance with MIL-DTL-38999, except that in addition to the test sequence specified for all classes above, the additional following tests shall be required:

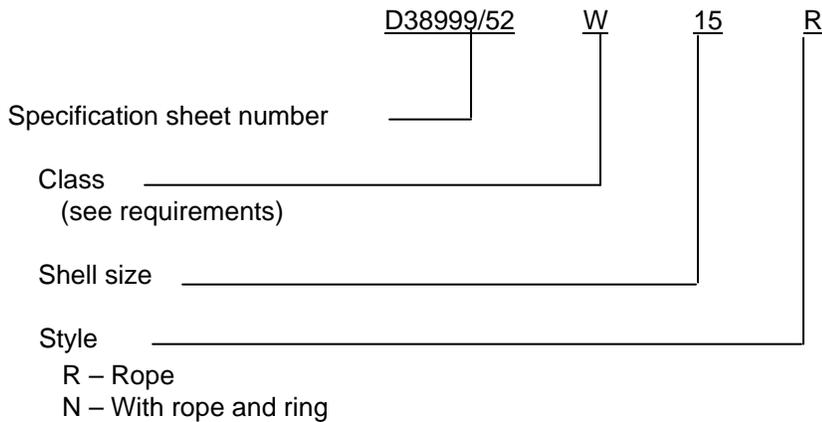
- Temperature cycling
- Hydrolytic stability

Group A sampling inspection. Sampling for group A inspection shall be as specified in table I.

TABLE I. Group A sampling plan.

Lot size	Sampling size
1 to 13	100 percent
14 to 150	13 units
151 to 280	20 units
281 to 500	29 units
501 to 1,200	34 units
1,201 to 3,200	42 units
3,201 and up	54 units

Part or Identifying Number (PIN) example:



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

MIL-DTL-38999/52B

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.

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

EIA-364-02

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2013-225)

Review activities:

Army - 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>.