

METRIC

MIL-DTL-38999/33E
w/AMENDMENT 3

11 August 2022

SUPERSEDING
MIL-DTL-38999/33E
w/AMENDMENT 2
27 July 2021

DETAIL SPECIFICATION SHEET

CONNECTOR, ELECTRICAL CIRCULAR, COVER, PROTECTIVE,
RECEPTACLE, 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.

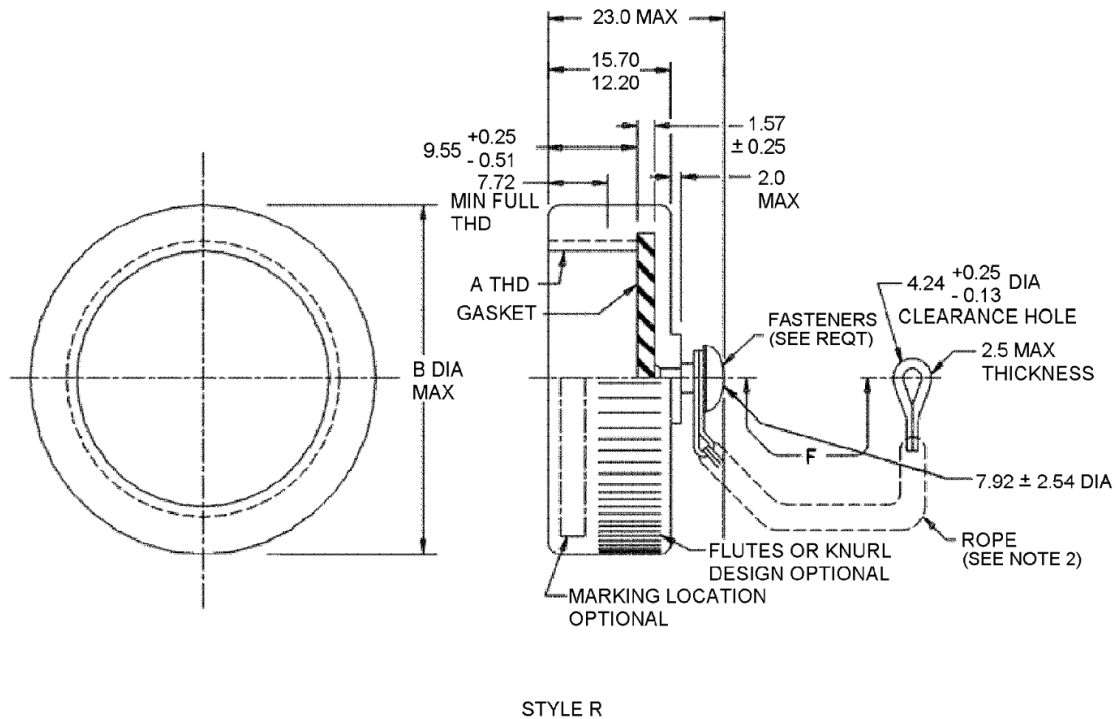


FIGURE 1. Protective cover, receptacle.

AMSC N/A
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

FSC 5935



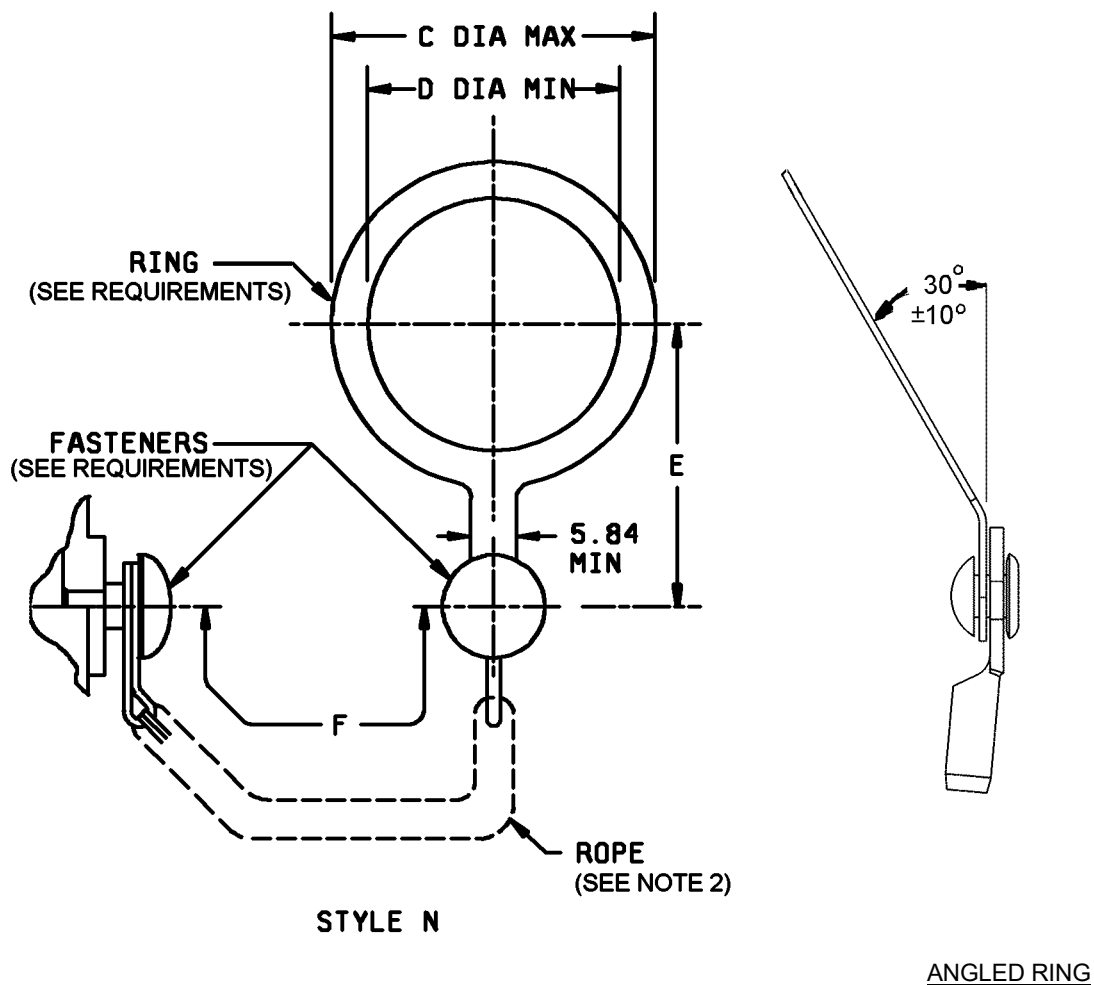


FIGURE 1. Protective cover, receptacle – Continued.

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Dimensions						
Shell size	A THD-2B	B dia max	C dia max	D dia min	E	F + 13.0 - 7.0 (+.51/-.28)
9	.6250-0.1P-0.3L-TS	23.0 (.91)	27.0 (1.06)	17.64 (.69)	21.00 18.00 (.83/.71)	127.00 (5.00)
11	.7500-0.1P-0.3L-TS	28.0 (1.10)	32.0 (1.26)	21.97 (.86)	22.50 18.50 (.89/.73)	127.00 (5.00)
13	.8750-0.1P-0.3L-TS	31.0 (1.22)	37.0 (1.46)	25.12 (.99)	25.00 23.50 (.98/.93)	127.00 (5.00)
15	1.0000-0.1P-0.3L-TS	32.0 (1.26)	40.0 (1.57)	29.92 (1.18)	31.00 25.00 (1.22/.98)	127.00 (5.00)
17	1.1875-0.1P-0.3L-TS	37.0 (1.46)	44.0 (1.73)	32.00 (1.26)	32.50 26.50 (1.28/1.04)	127.00 (5.00)
19	1.2500-0.1P-0.3L-TS	39.0 (1.54)	46.0 (1.81)	36.27 (1.43)	34.00 28.00 (1.34/1.10)	127.00 (5.00)
21	1.3750-0.1P-0.3L-TS	42.0 (1.65)	49.0 (1.93)	38.25 (1.51)	35.50 30.00 (1.40/1.18)	127.00 (5.00)
23	1.5000-0.1P-0.3L-TS	45.0 (1.77)	54.0 (2.13)	42.62 (1.68)	37.50 31.50 (1.48/1.24)	127.00 (5.00)
25	1.6250-0.1P-0.3L-TS	49.0 (1.93)	56.0 (2.20)	44.45 (1.75)	39.00 33.00 (1.54/1.30)	127.00 (5.00)

NOTES:

1. Dimensions are in millimeters (inch equivalents in parentheses), except "A threads" which are in inches.
2. Method of attachment to cover and or ring is optional.
3. Inch dimensions are given for information only.

FIGURE 1. Protective cover, receptacle – Continued.

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REQUIREMENTS:

Dimensions and configuration: See figure 1.

Materials:

- Cover - Base material and finish as defined by shell material and finish specified in MIL-DTL-38999
- Gasket - Silicone elastomer.
- Ring - Corrosion resistant steel, passivated, 1.020 mm (.04 inches) maximum thickness.
- Rope - Insulated stainless steel, passivated. Passivation or proof of passive finish using test method ASTM A967/A967M, practice D, or equivalent is permissible. Insulation shall withstand 200°C environment.
- Fastener - Stainless steel, passivated.
Option: Aluminum integral to cover.

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

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 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 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 lbft/in² (.703 Kg/cm²) can be applied against the insides of the protective covers or stowage receptacles.

Qualification (general). Qualification shall be in accordance with MIL-DTL-38999, except only the following sequence of 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 (general) requirements shall apply. The following additional tests shall be required:

- Temperature cycling
- Hydrolytic stability.

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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:

D38999/32 W 15 R

D38999/32 Specification sheet number

W Class (see requirements)

15 Shell size

R Style

R - Rope

N - With rope and ring

C - Cover only

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

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. This document references MIL-DTL-38999.

EIA-364-02
ASTM-A967/A967M

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-2022-191)

Review activities:

Army - MI
Navy - EC, MC, OS
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>.