NOTE: The document identifier and heading has been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

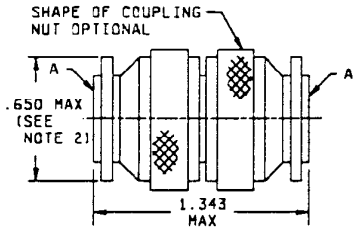
MIL-PRF-55339/36A
1 February 1983
SUPERSEDING
MIL-A-55339/36
11 January 1977

PERFORMANCE SPECIFICATION

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, (WITHIN SERIES TNC) CLASS 2, STRAIGHT PLUG

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the connector adapter described herein shall consist of this document and the latest issue of Specification MIL-PRF-55339.



Reference	Series	Contact	Figure
A	TNC	Pin	2

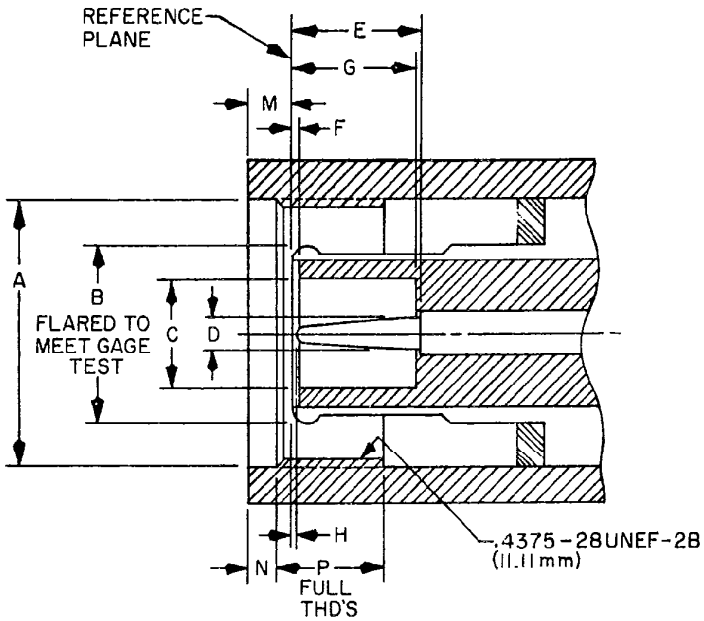
Inches	mm
.650	16.51
1.343	34.11

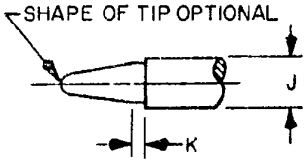
NOTES:
1. Dimensions are in inches
2. This dimension is the largest overall diameter of the connector..
3. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm.

FIGURE 1. General configuration

(A) denotes changes

FSC 5935





Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.440 (11.18)	
B	Gage test	
C	.190 (4.83)	
D	.052 (1.32)	.054 (1.37)
E	.210 (5.33)	.230 (5.84)
F	.006 (.15)	
G	.208 (5.28)	.223 (5.79)
H	.003 (.08)	.040 (1.02)
J	.081 (2.06)	.087 (2.21)
K	.078 (1.98)	
M		.078 (1.98)
N	.063 (1.60)	
P	.156 (3.96)	

NOTES:
1. Metric equivalents are given for general information only and are based upon 1 inch = 25.4 mm.
2. Three holes .027 (.69 mm) minimum diameter equally spaced for safety wiring. Location on coupling nut optional.
3. All undimensioned pictorial configurations are for reference purposes only.

FIGURE 2. Mating dimensions for male terminations.

REQUIREMENTS:

Design and construction:

General configuration: See figure 1.

Impedance: 50 ohms, nominal.

Working voltage:
Sea level - 500 V rms.
70,000 feet - 125 V rms.

Frequency range: 0 to 11 GHz.

Temperature range: -65°C to +165°C.

Performance (installation torque is not applicable).

Dimensions: See figures 1 and 2.

Center contact retention:
Axial force - 6 lbs, minimum.
Torque - 4 in. oz, minimum.

Force to engage and disengage:
Longitudinal force - Not applicable.
Torque - 2 in. lb, maximum.

Mating characteristics:
Outer contact, series TNC.
Minimum test ring ID - .319 in., maximum.
Pin finish - 16 microinches.
Insertion force - 5 lbs, maximum.
Insertion depth - .093 in., minimum.
Number of insertions - 1.
Maximum test ring ID - .324 in., minimum.
Test ring finish - 16 microinches.
Insertion depth - .031 in. of their tip ends.
Number of insertions - 1.

Permeability: <2.0.

Seal:
Pressurized - Not applicable.
Weatherproof - Not applicable.

Insulation resistance: 5,000 megohms, minimum.

Voltage standing wave ratio: 1.35 maximum at .5 to 11 GHz.

RF leakage (total): -60 dB, minimum, 2 to 3 GHz.

RF insertion loss: .18 dB, maximum, 9 GHz

($.06 \sqrt{F\ (GHz)}$ dB maximum tested at 3 GHz).

Durability: 500 cycles minimum at 12 cycles/minute maximum. The connector shall meet the mating characteristics and force to engage and disengage requirements.

Dielectric withstanding: Test voltage - 1,500 V rms, minimum (sea level).

Ⓐ Contact resistance (milliohms, maximum):

Contact	Initial	After
Center	2.0	2.5
Outer	.45	Not applicable

Vibration, high frequency: Interruptions - 1 μs, maximum.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, minimum.

Corona level:
Voltage - 375 V, minimum.
Altitude - 70,000 feet, minimum.

RF high potential withstanding voltage:
RF voltage - 1,000 V rms, minimum.
Frequency - 5 MHz, minimum.

Salt spray (corrosion): Test condition B.

Coupling proof torque: 15 lbs.

Coupling mechanism retention force: 100 lbs, minimum.

Marking: As specified in MIL-A-55339.
Part No. M55339/36-00001.

Custodians:
Army - CR
Navy - EC
Air Force - 85

Review activities:
Army - AR, MI, AT
Navy - SH
Air Force - 11, 99
DLA - ES

User activities:
Navy - AS, MC
Air Force - 19

Agent:
DLA - ES

Preparing activity:
Army - CR

(Project 5935-3342)