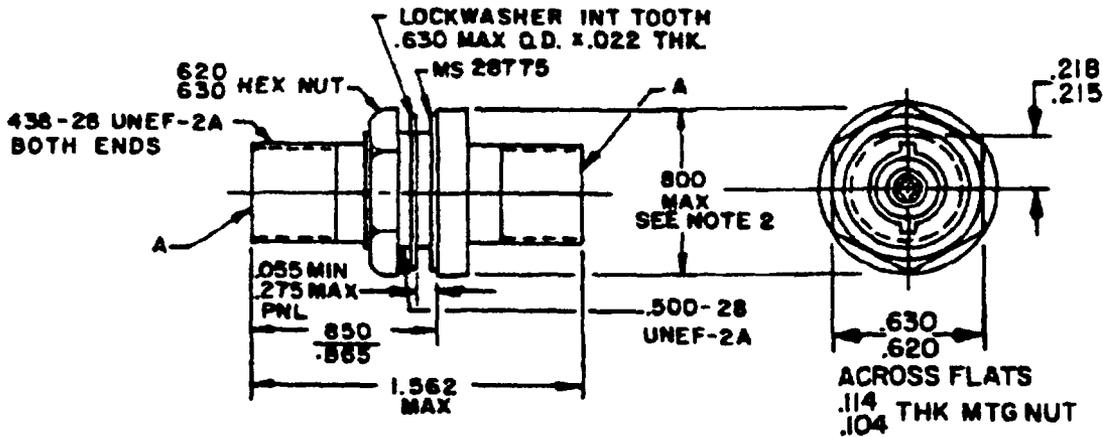


MILITARY SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY,
(WITHIN SERIES TNC, (HERMETIC)), CLASS 2, RECEPTACLE

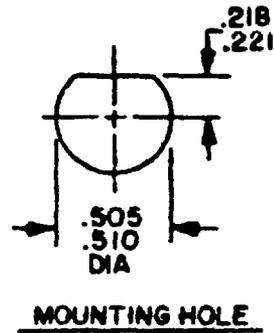
This specification is approved for use by all Departments and Agencies of the Department of Defense

The complete requirements for procuring the connector adapter described herein shall consist of this document and the latest issue of MIL-A-55339



Reference	Series	Contact	Figure
A	TNC	Socket	2

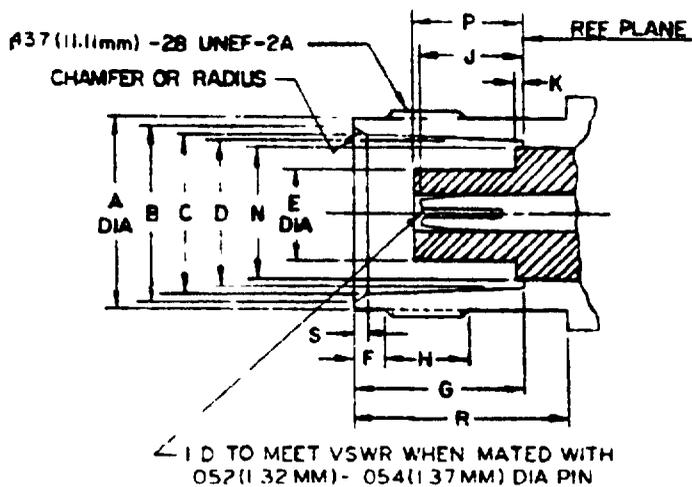
INCHES		MM	
.022	.56	.500	12.70
.055	1.40	.505	12.83
.104	2.64	.510	12.95
.114	2.90	.620	15.75
.215	5.46	.630	16.00
.218	5.54	.800	20.32
.221	5.61	.850	21.59
.275	6.98	.865	21.97
.438	11.13	1.562	39.67



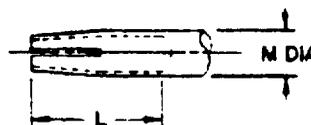
NOTES.

- Dimensions are in inches.
- This dimension is the largest overall diameter of the connector.
- Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
- Minimum panel thickness .055 minimum (1.40 mm).

FIGURE 1. General configuration.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses (see note)	
	Minimum	Maximum
A	.378 (9.60)	.381 (9.68)
B	.345 (8.76)	.356 (9.04)
C	.327 (8.31)	.333 (8.46)
D	.319 (8.10)	.321 (8.15)
E		.186 (4.72)
F	.068 (1.73)	.088 (2.24)
G	.329 (8.36)	.333 (8.46)
H	.187 (4.75)	
J	.188 (4.72)	.206 (5.23)
K		.006 (.15)
L	.195 (4.95)	
M	.081 (2.06)	.087 (2.21)
N		.256 (6.50)
P	.188 (4.78)	.208 (5.28)
R	.015 (0.38)	
S	.015 (.38)	.030 (.76)



*N dimension applies to that portion (if applicable) of the dielectric which protrudes beyond the metal shoulder (or reference plane) by dimension K

NOTES:

- 1 Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
- 2 All undimensioned pictorial configurations are for reference purposes only.

FIGURE 2. Mating dimensions for female terminations.

DESIGN AND CONSTRUCTION.

General configuration: See figure 1.

Impedance: 50 ohms, nom.

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

Frequency range: 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque is not applicable).

Dimensions: See figures 1 and 2.

Center contact retention: Not applicable.

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

Mating characteristics:

Center contact (socket):

Oversize test pin dia - .057 in., min.

Insertion depth - .125 in., min.

No. of insertions - 1.

Max test pin (insertion force test):

Steel test pin dia - .054 in., min.

Pin finish - 16 microinches.

Insertion force - 2 lb, max.

No. of insertions - 1.

Min test pin (withdrawal force):

Steel test pin dia - .052 in., max

Pin finish - 16 microinches.

Withdrawal force - 2 oz, min

No of withdrawals - 1.

Permeability: <2.0.

Seal:

Hermetic: Contact to shell - 1×10^{-7} atm cm³/s.

Gasket seal - 1×10^{-5} atm cm³/s, shell to panel.(Center contact to body).

Pressurized - Not applicable

Weatherproof - 30 psi, max (mounting seal)

Insulation resistance 5,000 megohms, min.

VSWR: 1.4 max at .5 to 11 GHz.

RF leakage (total): -55 dB, min, 2 to 3 GHz.

RF insertion loss: .5 dB, max, 9 GHz,
(.14 \sqrt{F} (GHz) dB max tested at 3 GHz, min)

MIL-A-55339/34

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

Dielectric withstanding. Test voltage - 1,500 Vrms, min (sea level).

Contact resistance (milliohms, max):

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.5	3.0
Outer	0.5	Not applicable

Vibration, high frequency: Interruptions - 1 μ s, max.

Shock. Test condition I.

Temperature cycling: High temperature - 200°C, min

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

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

RF high potential withstanding voltage: RF voltage - 1,000 Vrms, min.
Frequency - 5 MHz, min.

Salt spray (corrosion): Test condition B.

MARKING: As specified in MIL-A-55339.
Part No. M55339/34-00001.

Custodians
Army - EL
Navy - EC
Air Force - 85

Review activities:
Army - MU, MI, EL, AT
Navy - SH
Air Force - 11, 99
DSA - ES

User activities:
Army - AT, MU
Navy - AS, MC
Air Force - 19

Preparing activity:
Army - EL

Agent:
DSA - ES

(Project 5935-2017-10)

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Headquarters
U.S. Army Electronics Command
Fort Monmouth, New Jersey 07703

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SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No 22-R255
<p>INSTRUCTIONS This sheet is to be filled out by personnel either Government or contractor involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.</p>		
<p>SPECIFICATION MIL-A-55339/30 ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, (WITHIN SERIES INC, (HERMETIC), CLASS 2, RECEPTACLE</p>		
<p>ORGANIZATION</p>		
<p>CITY AND STATE</p>		<p>CONTRACT NUMBER</p>
<p>MATERIAL PROCURED UNDER A</p> <p><input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT</p>		
<p>1 HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?</p> <p>A GIVE PARAGRAPH NUMBER AND WORDING</p>		
<p>B RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
<p>2 COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID</p>		
<p>3 IS THE SPECIFICATION RESTRICTIVE?</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO (If "yes", in what way?)</p>		
<p>4 REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers attach to form and place both in an envelope addressed to preparing activity.)</p>		
<p>SUBMITTED BY (Printed or typed name and activity - Optional)</p>		<p>DATE</p>

DD FORM 1426
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED

ESC-FM 1068-68