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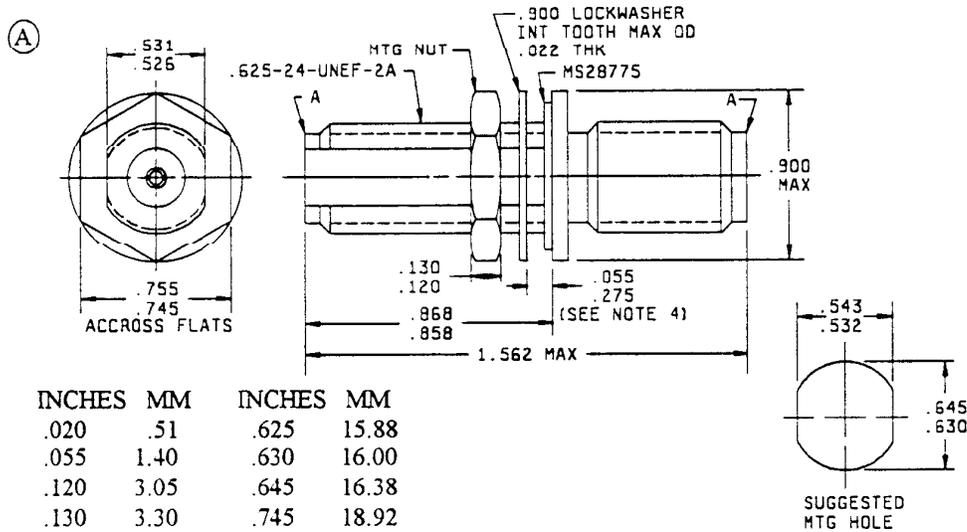
MIL-PRF-55339/4A
 11 January 1977
 SUPERSEDING
 MIL-A-55339/4
 6 May 1975

PERFORMANCE SPECIFICATION

(A) ADAPTERS, CONNECTORS, COAXIAL, RADIO FREQUENCY,
 (WITHIN SERIES N (HERMETIC AND NON-HERMETIC)), CLASS 2, STRAIGHT RECEPTACLE

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

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



INCHES	MM	INCHES	MM
.020	.51	.625	15.88
.055	1.40	.630	16.00
.120	3.05	.645	16.38
.130	3.30	.745	18.92
.284	7.21	.755	19.18
.526	13.36	.858	21.79
.531	13.49	.868	22.05
.532	13.51	.900	22.86
.543	13.79	1.562	39.67

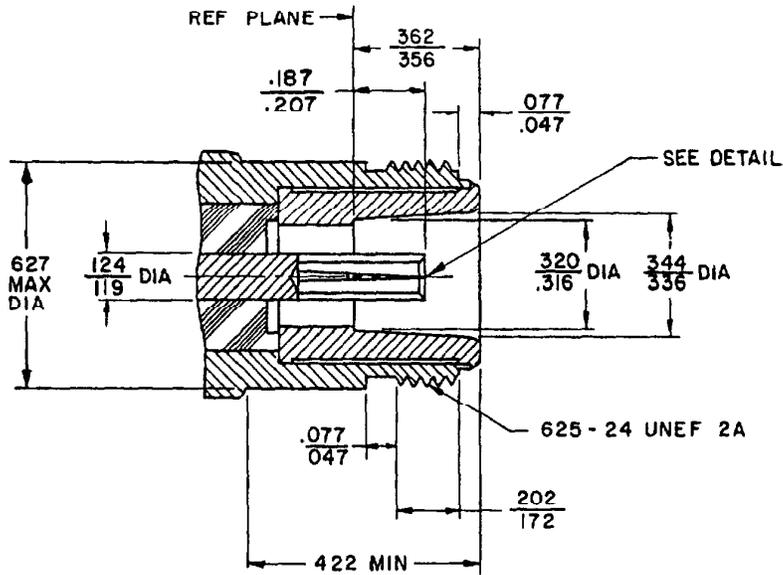
Reference	Series	Contact	Figure
A	N	Socket	2

NOTES:

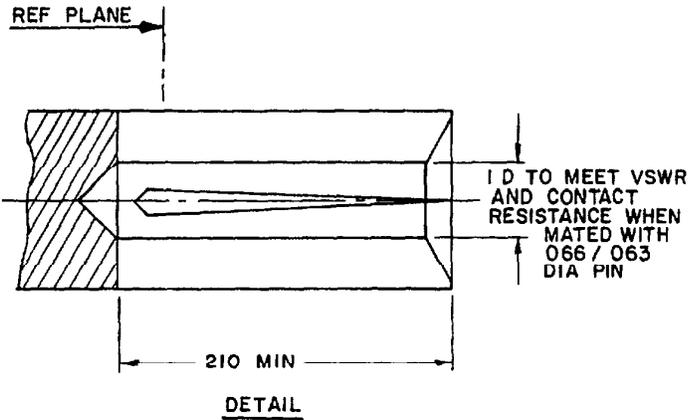
1. Dimensions are in inches.
2. Metric equivalents are given for general information only and are based upon 1 0 inch = 25.4 mm.
3. All undimensioned pictorial representations are for reference purposes only.
4. Panel thickness .055 minimum, .284 maximum.

FIGURE 1. General configuration.

(A) denotes change.



INCHES	MM
.047	1.19
.063	1.60
.066	1.68
.077	1.95
.119	3.02
.124	3.15
.172	4.37
.187	4.75
.202	5.13
.207	5.26
.316	8.03
.320	8.13
.336	8.53
.344	8.74
.356	9.04
.362	9.19
.422	10.72
.625	15.88
.627	15.93



NOTES:

1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Slitting of inner contact optional.
4. All undimensioned pictorial representations are for reference purposes only.

FIGURE 2. Mating dimensions for socket contact terminations.

DESIGN AND CONSTRUCTION:

General configuration. See figure 1.

Impedance: 50 ohms, nom

Working voltage: Sea level - 1,000 Vrms.
70,000 feet - 250 Vrms.

Frequency range 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque of 6 to 10 in. lb).

Dimensions: See figures 1 and 2.

Center contact retention: Axial force - 6 lb, min.
Torque - Not applicable.

Force to engage and disengage: Longitudinal force - Not applicable.
Torque - 6 in. lb, max.

Coupling proof torque: Not applicable.

Mating characteristics.

Center contact (socket)

Oversize test pin dia - .074 in., min.
Insertion depth - .125 in., min.
No. of insertions - 1.

Max test pin (insertion force test)
Steel test pin dia - .066 in., min.
Pin finish - 16 microinches.
Insertion force - 2 lb, max.
No. of insertions - 1.

Min test pin (withdrawal force)
Steel test pin dia - .063 in., max.
Pin finish - 16 microinches.
Withdrawal force - 2 oz, min
No. of withdrawals - 1.

Outer contact. Not applicable.

Permeability: <2 0.

④ Seal

	Dash No 00030	Dash No 00001	1/
Hermetic	- 1×10^{-7} atm cm ³ /s (center contact body)	Not applicable	
Pressurized	- Not applicable	50 psi, max	
Weatherproof	- 30 psi, max (mounting seal)	30 psi, max (mounting seal)	

Insulation resistance: 5,000 megohms, min

VSWR 1.45 1 max for hermetic and 1.30 1 max for non-hermetic at 5 to 11 GHz

RF leakage (total) -90 dB, min, 2 to 3 GHz

RF insertion loss 0.5 dB max for hermetic and 0.2 dB max for non-hermetic, 9 GHz
(.067 $-\sqrt{F}$ (GHz) dB max tested at 9 GHz).

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

1/ Internal parts shall be constructed of nonferro-magnetic material

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Dielectric withstanding: Test voltage - 2,500 Vrms, min (sea level).

Contact resistance (milliohms, max):

Contact	Initial	After
Center	2.5	3.0
Outer	0.3	Not applicable

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

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, min.

Corona level: Voltage - 500 V, min.
Altitude - 70,000 feet, min.

RF high potential withstanding voltage: RF voltage - 1,500 Vrms, min.
Frequency - 5 MHz, min.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: Not applicable.

Ⓐ MARKING: As specified in MIL-A-55339.
Part No. M55339/04-00030. Hermetic
-00001. Non-hermetic

TABLE I. Cross reference of part numbers.

Part number	Superseded part number or type designation <u>1/</u>
M55339/04-00030	MS90159 UG-30E/U

1/ The superseded part number or the type designation is for cross reference only. Where a superseded part number or type designation is not given, none was assigned or will be assigned.

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, MJ
Navy - AS, MC
Air Force - 19

Preparing activity:

Army - EL

Agent:

DSA - ES

(Project 5935-2017-1)

SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No 22-R255

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.

SPECIFICATION **MIL-A-55339/4A ADAPTERS, CONNECTOR, COAXIAL, RADIO FREQUENCY, WITHIN SERIES N (HERMETIC AND NON-HERMETIC), CLASS 2, STRAIGHT RECEPTACLE**

ORGANIZATION

CITY AND STATE

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

DIRECT GOVERNMENT CONTRACT SUBCONTRACT

1 HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A GIVE PARAGRAPH NUMBER AND WORDING

B RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2 COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3 IS THE SPECIFICATION RESTRICTIVE?

YES NO (If "yes" in what way?)

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.)

SUBMITTED BY (Printed or typed name and activity - Optional)

DATE

DD FORM 1426
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED

ESC-FM 1068-68

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