

INCH-POUND

MIL-PRF-55339/4B

25 August 2004

SUPERSEDING

MIL-PRF-55339/4A

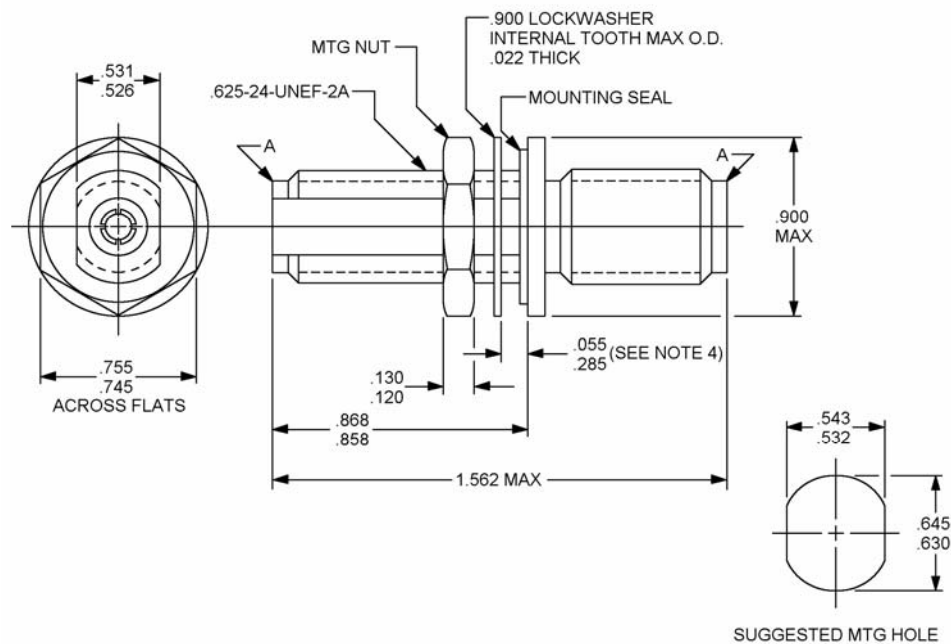
11 January 1977

PERFORMANCE SPECIFICATION SHEET

ADAPTER, CONNECTOR, COAXIAL, RADIO FREQUENCY, IN-LINE, JAMNUT MOUNTED,
(WITHIN SERIES N JACK TO SERIES N JACK, (HERMETIC AND NON-HERMETIC)), CLASS 2

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-PRF-55339.



Inches	mm	Inches	mm
.022	.53	.625	15.88
.055	1.40	.630	16.00
.120	3.05	.645	16.38
.130	3.30	.745	18.92
.285	7.22	.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
A	N	Socket

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. All undimensioned pictorial representations are for reference purposes only.
4. Panel thickness .055 minimum, .285 maximum.
5. Interface dimensions shall be in accordance with MIL-STD-348, series N socket contact.

FIGURE 1. General configuration.

DESIGN AND CONSTRUCTION

General configuration: See figure 1.

Impedance: 50 ohms, nominal.

Working voltage: Sea level – 1,000 V rms.
70,000 feet (4.437 kPa) – 250 V rms.

Frequency range: 0 to 11 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque of 6 to 10 in-lb (0.68 to 1.13 Nm))

Dimensions: See figure 1 and MIL-STD-348.

Center contact retention: Axial force – 6 lb (26.69 N), min.
Torque – Not applicable.

Force to engage and disengage: Longitudinal force – Not applicable.
Torque – 6 in-lb (0.68 Nm), max.

Coupling proof torque: Not applicable.

Mating characteristics:

Center contact (socket):

Oversize test pin dia. - .074 in. (1.88 mm), min.
Insertion depth - .125 in. (3.18 mm), min.
Number of insertions – 1.

Maximum test pin (insertion force test):

Steel test pin dia. - .066 in. (1.68 mm), min.
Pin finish – 16 microinches (0.41 μ m).
Insertion force – 2 lb, max. (8.89 N).
Number of insertions – 1.

Minimum test pin (withdrawal force):

Steel test pin dia. - .063 in. (1.60 mm), max.
Pin finish – 16 microinches (0.41 μ m).
Withdrawal force – 2 oz. (0.56 N), min.
Number of withdrawals – 1.

Outer contact: Not applicable.

Permeability: <2.0.

MIL-PRF-55339/4B

Seal:	<u>Dash no. 00030 and 70001</u>	<u>Dash no. 00001 and 70002</u> <u>1/</u>
Hermetic:	1×10^{-7} atm cm ³ /s (center contact body)	Not applicable
Pressurized:	Not applicable	30 psi (207 kPa), max.
Weatherproof:	30 psi (207 kPa), max. (mounting seal)	30 psi (207 kPa), max. (mounting seal)

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

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 ($.067 \sqrt{F \text{ (GHz)}}$ 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.

Dielectric withstanding: Test voltage – 2,500 V rms, min (sea level).

Contact resistance (milliohms, max).

	<u>Hermetic</u>			<u>Non-hermetic</u>	
<u>Contact</u>	<u>Initial</u>	<u>After environmental</u>		<u>Initial</u>	<u>After environmental</u>
Center contact	4.0	5.0		1.5	2.0
Outer contact	0.2	N/A		0.2	N/A
Outer contact (-70001)	0.4	N/A	(-70002)	0.4	N/A

Vibration, high frequency: Interruptions – 1 μs, 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 (4.437 kPa), min.

RF high potential withstanding voltage: RF voltage – 1,500 V rms, min.
Frequency – 5 MHz, min.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: Not applicable.

MIL-PRF-55339/4B

Part or Identifying Number (PIN): M55339/04-00030 and -70001(Hermetic);-00001 and -70002 (Non-hermetic).

PIN: M55339/04-70001 and -70002. **CAUTION: THESE PARTS HAVE A NICKEL PLATED BODY AND ARE NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.**

Cross reference: See table I.

TABLE I. Cross reference of PIN.

PIN	Superseded PIN or type designation ^{1/}
M55339/04-00030	MS90159 UG-30 E/U

^{1/} The superseded PIN or the type designation is for cross reference only. Where a superseded PIN or type designation is not given, none was assigned or will be assigned. The PIN: M55339/04-00030 shall be used in all cases for marking and identifying the adapter.

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-PRF-55339, this document references the following:

MIL-STD-348

CONCLUDING MATERIAL

Custodians:

Army – CR
Navy – EC
Air Force – 11
DLA - CC

Preparing activity:

DLA - CC

(Project 5935-4657-003)

Review activities:

Army – AR, AT, EA, MI
Navy – AS, MC, OS, SH
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 <http://assist.daps.dla.mil>.