

INCH-POUND

MIL-PRF-55339/15A

10 January 2005

SUPERSEDING

MIL-PRF-55339/15

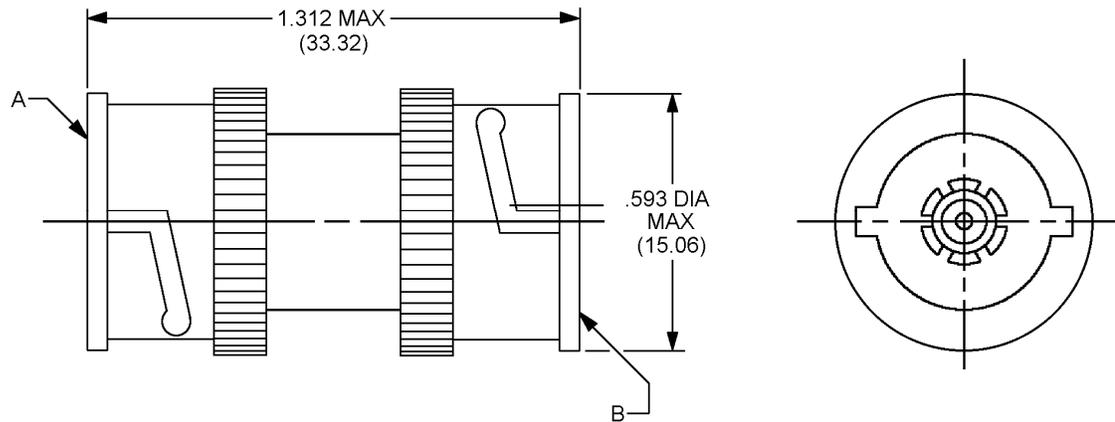
6 May 1975

PERFORMANCE SPECIFICATION

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

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.



Reference	Series	Contact
A	BNC	Pin
B	BNC	Pin

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in parentheses.
3. Metric equivalents are given for information only.
4. All undimensioned pictorial representations are for reference purposes only.
5. Interface dimensions shall be in accordance with MIL-STD-348.

FIGURE 1. General configuration.

DESIGN AND CONSTRUCTION:

General configuration: See figure 1.

Impedance: 50 ohms, nominal.

Working voltage:

Sea level: 500 Vrms.

70,000 feet (4.437 kPa): 125 Vrms.

Frequency range: 0 to 4 GHz.

Temperature range: -65° to +165°C.

PERFORMANCE (installation torque is not applicable):

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

Center contact retention:

Axial force: 6 lb (26.69 N), minimum.

Torque: Not applicable.

Force to engage and disengage:

Longitudinal force: 3 lb (13.34 N), maximum.

Torque: 2.5 inch lb (0.28 Nm), maximum.

Coupling proof torque: Not applicable.

Mating characteristics:

Center contact (socket): Not applicable.

Outer contact:

Minimum test ring ID: .319 inch (8.10 mm), maximum.

Ring finish: 16 microinches (.406 μ m).

Insertion force: 5 lb (22.24 N), maximum.

Insertion depth: .093 inch (2.36 mm), minimum.

Number of insertions: Not applicable.

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Maximum test ring ID: .324 inch (8.23 mm), minimum.

Test ring finish: Not applicable.

Insertion depth: .031 inch (0.79 mm), maximum.

Number of insertions: Not applicable.

Permeability: <2.0

Seal:

Hermetic: Not applicable.

Pressurized: Not applicable.

Weatherproof: Not applicable.

Insulation resistance: 5,000 megohms, minimum.

VSWR: 1.25:1, maximum .5 to 4 GHz.

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

RF insertion loss: .2 dB, maximum, 3 GHz ($.115 \sqrt{F \text{ (GHz)}}$) dB max tested at 3 GHz)

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

Dielectric withstanding:

Test voltage: 1,500 Vrms, minimum (sea level).

Contact resistance (milliohms, maximum).

<u>Contact</u>	<u>Initial</u>	<u>After</u>
Center	2.0	2.5
Outer	0.2	N/A
Outer (-70001)	0.4	N/A

Vibration, high frequency:

Interruptions: 1 μ s, maximum.

Shock: Test condition I.

Thermal shock: Test condition C.

Moisture resistance: 200 megohms, minimum.

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Corona level:

Voltage: 375 V, minimum.

Altitude: 70,000 feet (4.437 kPa), minimum.

RF high potential withstanding voltage:

RF voltage: 1,000 Vrms, minimum.

Frequency: 5 MHz, minimum.

Salt spray (corrosion): Applicable.

Coupling mechanism retention force: 100 lb (444.82 N), minimum.

Part Identifying Number (PIN): M55339/15-00491 or

PIN M55339/15-70001 **CAUTION: THIS PART HAS A NICKEL PLATED BODY AND IS NOT FOR USE IN APPLICATIONS WHERE PASSIVE INTERMODULATION GENERATION (PIM) MAY BE A CONCERN.**

TABLE I. Cross reference of PINs.

PIN	Superseded PIN or type designation ^{1/}
M55339/15-00491	MS35176 UG-491B/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: M55339/15-00491 shall be used in all cases for marking and identifying the adapter.

Reference documents. In addition to MIL-PRF-55339, this document references the following:

MIL-STD-348

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 5935-4657-014)

Review activities:

Army - AR, AT, MI
Navy - AS, MC
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>.