

INCH-POUND

MIL-PRF-39012/100A
w/AMENDMENT 1
9 December 2008
SUPERSEDING
MIL-C-39012/100A
14 December 1987

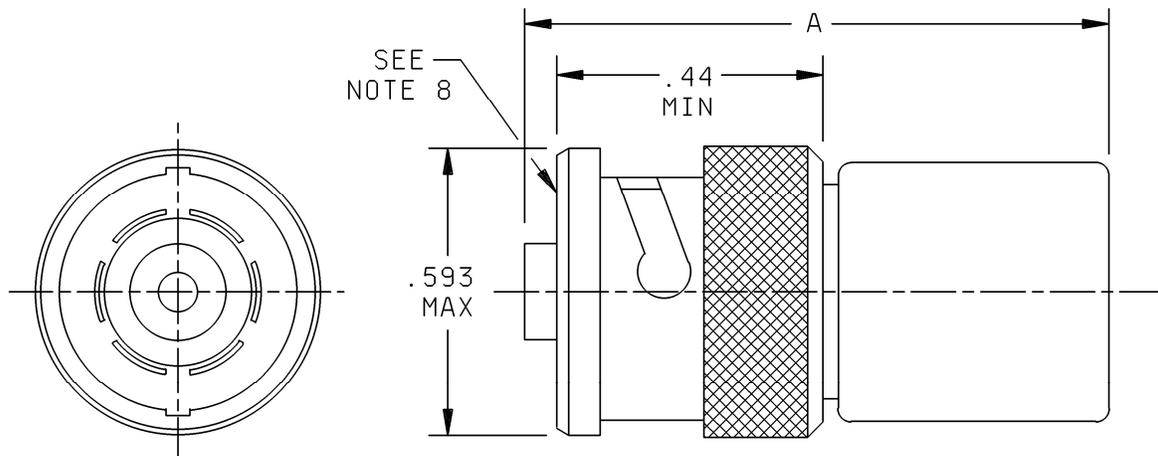
PERFORMANCE SPECIFICATION SHEET

CONNECTORS, PLUG, ELECTRICAL, COAXIAL, RADIO FREQUENCY,
HIGH VOLTAGE (SERIES MHV (CABLED), PIN CONTACT, CLASS 2)

Inactive for new design after 1 November 1979

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-39012.



NOTES:

Inches	mm
.44	11.2
.593	15.06

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. For dimension A, see table I.
4. Dimension .593 is the largest overall diameter of the connector.
5. Wrench flats are to accommodate standard wrench opening in accordance with FED-STD-H28, appendix 10.
6. All undimension pictorial representations are for reference purposes only.
7. Dimension A is the maximum length of the connector when assembled to the appropriate cable.
8. Series MHV, pin contact, in accordance with MIL-STD-348.

FIGURE 1. General configuration.

MIL-PRF-39012/100A
w/AMENDMENT 1

TABLE I. Dash number, cross-reference and dimensions.

Dash number	Applicable cable	Dimension	Inches (mm) maximum
CATEGORY A – FIELD SERVICEABLE (NO SPECIAL TOOLS REQUIRED)			
0001	M17/29-RG59 <u>1/ 2/</u> M17/184-00001 <u>2/</u> M17/30-RG62 <u>1/ 2/</u> M17/185-00001 <u>2/</u> M17/90-RG71 <u>2/</u> M17/97-RG210 <u>2/ 3/</u>	A	1.5156 (38.496)

1/ Specification to be canceled.

2/ These are not 50 ohm cables, therefore, when attached to the specified connector, VSWR, RF leakage and insertion loss are not applicable. .

3/ Cable to be used for the +200°C thermal shock test.

ENGINEERING DATA:

Nominal impedance: Non-constant.

Frequency range: Not applicable.

Voltage rating: 1,600 V rms maximum at sea level; 375 V rms maximum at 70,000 feet.

Temperature rating: -65°C to +165°C.

REQUIREMENTS:

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

Force to engage and disengage:

Longitudinal force: 3 pounds, maximum.

Torque: Not applicable.

Coupling proof torque: 2.5 inch-pounds, maximum.

Mating characteristics: See figure 1 and MIL-STD-348.

Hermetic seal: Not applicable.

Leakage (pressurized connectors): Not applicable.

MIL-PRF-39012/100A
w/AMENDMENT 1

Insulation resistance: In accordance with MIL-STD-202, method 302, test condition B, 5,000 megohms minimum.

Center contact retention: Not applicable.

Corrosion (salt spray): In accordance with MIL-STD-202, method 101, test condition B.

Connector durability: 500 cycles minimum at 12 cycles per minute maximum. The connector shall meet mating characteristics and force to engage and disengage requirements.

Insertion and withdrawal force:

Initial: 5 pounds, maximum.

Final: 5 pounds, maximum, 1 pound minimum.

Contact resistance: In milliohms, maximum.

	<u>Initial</u>	<u>After environment</u>
Center contact:	2.0	2.5
Outer contact:	.2	Not applicable
Body to braid:	.1	Not applicable

Dielectric withstanding voltage at sea level: In accordance with MIL-STD-202, method 301. 5,000 V rms, minimum at sea level.

Vibration, high frequency: In accordance with MIL-STD-202, method 204, test condition B, no discontinuity permitted.

Shock (specified pulse): In accordance with MIL-STD-202, method 213, test condition I.
Acceleration: 50 g's at 7 milliseconds No discontinuity permitted.

Thermal shock: In accordance with MIL-STD-202, method 107, test condition B, except high test temperature shall be +85°C. High temperature shall be +200°C for connectors using +200°C cable (see table I).

Moisture resistance: In accordance with MIL-STD-202, method 106. No measurements at high humidity. Insulation resistance shall be at least 200 megohms within 5 minutes after removal from humidity.

Corona level:

Voltage – 1,245 volts rms.

Altitude – 70,000 feet.

RF high potential withstanding voltage: Not applicable.

MIL-PRF-39012/100A
w/AMENDMENT 1

Cable retention force:

Noncrimp assemblies: 40 pounds, minimum.

Coupling mechanism retention force: 100 pounds, minimum.

RF leakage: Not applicable.

RF insertion loss: Not applicable.

Part or Identifying Number (PIN): M39012/100-0001.

Supersession and cross-reference: See table II.

TABLE II. Supersession and cross-reference.

PIN	Superseded numbers			
	CAGE 74868	CAGE 91836	CAGE 77820	Type designation
M39012/100-0001	27975	KC-59-02	3621-1	UG932A

First article shall apply as follows: First article test inspection shall be performed in accordance with the requirements outlined in the latest revision of MIL-PRF-39012. All test requirements in this specification sheet are to be met. In this specification, tests that are listed as not applicable are not required. Testing procedures will be performed as specified in MIL-PRF-39012.

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. In addition to MIL-PRF-39012, this document references the following:

MIL-STD-348
MIL-STD-202
FED-STD-H28

MIL-PRF-39012/100A
w/AMENDMENT 1

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5935-2007-045)

Review activities:

Army – AM, AT, AV, CR4, 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>.