

INCH-POUND

MIL-PRF-39012/34C  
31 October 2014  
SUPERSEDING  
MIL-C-39012/34B  
09 September 2013

PERFORMANCE SPECIFICATION SHEET

CONNECTORS, COAXIAL, RADIO FREQUENCY  
(SERIES TNC (UNCABLED) – RECEPTACLE, SOCKET,  
HERMETIC SEALED, JAM NUT MOUNTED, 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-39012.

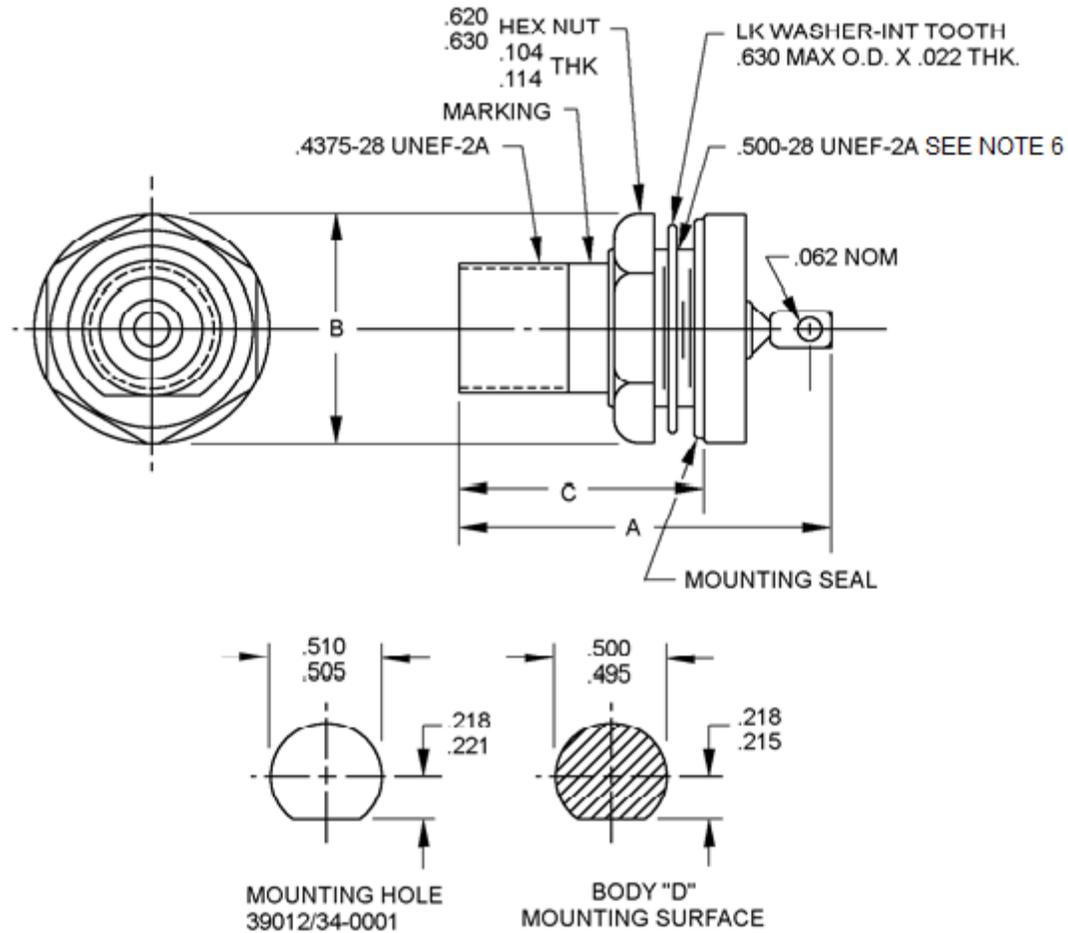
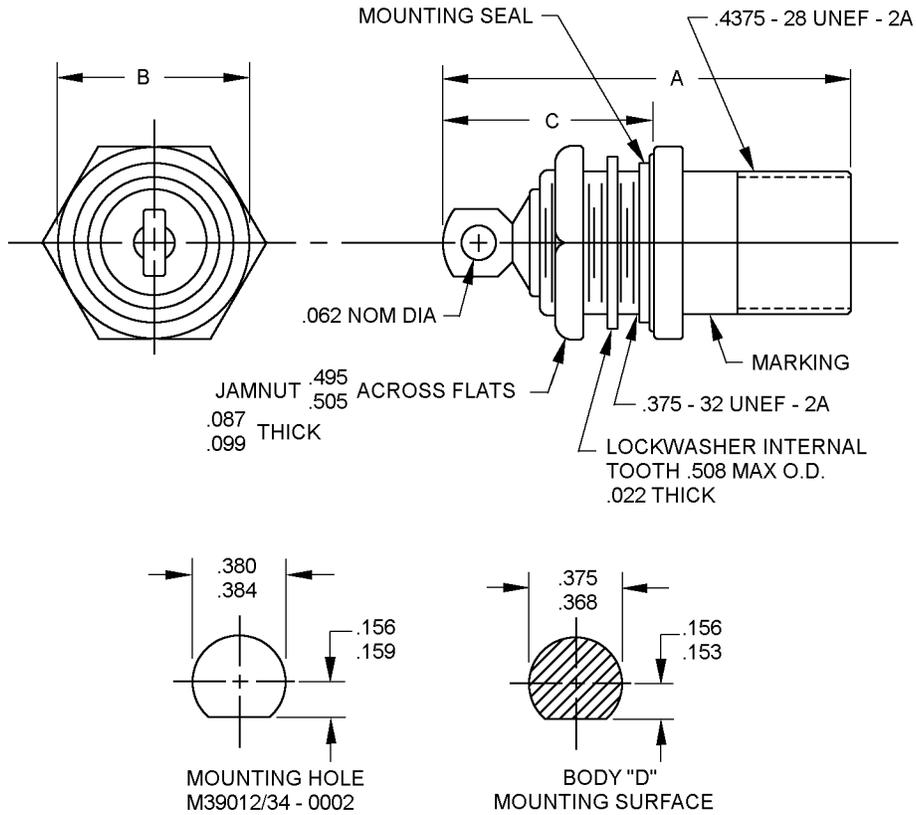


FIGURE 1. General configuration.



Inches	mm	Inches	mm	Inches	mm
.022	.56	.159	4.04	.4375	11.11
.062	1.57	.215	5.46	.495	12.57
.087	2.21	.218	5.54	.500	12.70
.099	2.51	.221	5.61	.505	12.83
.104	2.64	.368	9.35	.508	12.90
.114	2.90	.375	9.53	.510	12.95
.153	3.89	.380	9.65	.620	15.75
.156	3.96	.384	9.75	.630	16.00

NOTES:

1. Dimensions are in inches.
2. For dimensions A, B, and C see table I.
3. Dimension B is the largest overall diameter of the connector. Hex nut dimension not included in the overall diameter of the connector.
4. Metric equivalents (to the nearest .01 mm) are given for general information only.
5. All undimensioned pictorial configurations are for reference purposes only.
6. Full threads to within .063 (1.60 mm) of shoulder; 1 ½ max uneven threads to shoulder.

FIGURE 1. General configuration – Continued.

TABLE I. Dash number and overall dimensions.

Dash No.	Dim	Inches-millimeters <sup>1/</sup>		Minimum panel thickness	Maximum panel thickness
		Minimum	Maximum		
0001	A	.684 (17.37)	1.343 (34.11)	.045 (1.14)	.125 (3.18)
	B	.769 (19.53)	.690 (17.53)		
	C		.893 (22.68)		
0002	A	.626 (15.90)	1.328 (33.73)	.045 (1.14)	.250 (6.35)
	B		.650 (16.51)		
	C		.750 (19.05)		

<sup>1/</sup> Millimeters are in parentheses.

TABLE II. Group qualification.

Group	Submission and qualification of any of the following connectors	Qualifies the following connectors
I	0001 0002	0001 0002

ENGINEERING DATA

Nominal impedance: 50 ohms.

Frequency range: 0 to 11,000 MHz.

Voltage rating: 500 volts rms maximum working voltage at sea level, 125 volts rms maximum at 70,000 feet.

Temperature rating: -65°C to +165°C.

REQUIREMENTS

Dimensions and configuration: See figure 1.

Force to engage and disengage:

Longitudinal force – Not applicable.

Torque – 2 inch-pounds maximum.

Coupling proof torque: Not applicable.

Inspection conditions:

Coupling torque – 4 to 6 inch-pounds.

Mating characteristics: See MIL-STD-348, Figure 313-2.

Center contact (female)

Oversize test pin - .057 diameter minimum (non-closed entry contacts only).

Insertion depth - .125 minimum.

Number of insertions – 1.

Insertion force test – Steel test pin dia .054 minimum.

Test pin finish – 16 microinches.

Insertion force – 2 lbs maximum.

Withdrawal force test: Steel test pin dia .052 maximum.  
 Withdrawal force – 2 oz minimum.  
 Test pin finish – 16 microinches.

Hermetic seal: Leakage shall not exceed  $1 \times 10^{-5}$  cc/sec of tracer gas at atmospheric pressure.

Leakage (pressurized connectors): Connector mounted in mounting hole specified on figure 1 with mating end capped. Test applicable to mounting seal only. Air pressure – 30 psi. Duration: 30 seconds minimum.

Insulation resistance: Method 302, test condition B, MIL-STD-202. 5,000 megohms minimum.

Center contact retention:  
 6 lbs minimum axial force.  
 4 inch-ounces radial torque minimum.

Corrosion (salt spray): Method 101, test condition B, MIL-STD-202.

Voltage standing wave ratio (VSWR): Not applicable.

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

Contact resistance: In milliohms maximum.

Contact	Initial	After environment
Center contact	4.0	5.0
Outer contact	.2	Not applicable.

Dielectric withstanding voltage: Method 301 of MIL-STD-202. 1,500 volts rms minimum at sea level.

Vibration, high frequency: Method 204, test condition C, MIL-STD-202.

Shock: Method 213 of MIL-STD-202, test condition I.

Temperature cycling: Method 102, test condition C, MIL-STD-202, except test high temperature shall be +200°C.

Thermal shock: Not applicable.

Moisture resistance: Method 106 of MIL-STD-202. No measurements at high humidity. Insulation resistance shall be at least 200 megohms within 5 minutes after removal from humidity.

Corona level:  
 Voltage – 375 volts, minimum.  
 Altitude – 70,000 feet.

RF high potential withstanding voltage:  
 Voltage and frequency: 1,000 volts rms at 5 MHz.  
 Leakage current: Not applicable.

Cable retention force: Not applicable.

Coupling mechanism retention force: Not applicable.

RF leakage: Not applicable.

Insertion loss: Not applicable.

Part or Identifying Number (PIN): M39012/34 – (dash number from table I)

Group qualification: See table II.

Changes from previous issues. 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-39012, this document references the following:

MIL-STD-202  
MIL-STD-348

### CONCLUDING MATERIAL

Custodians:

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

Preparing activity:  
DLA-CC

Review activities:

Army – AT, AV, EA, MI  
Navy – AS, MC, OS, SH  
Air Force – 19, 99  
NASA - NA

(Project 5935-2014-102)

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 <https://assist.dla.mil>.