

INCH-POUND

MIL-PRF-39012/71B

16 November 2011

SUPERSEDING

MIL-PRF-39012/71A

24 September 1986

PERFORMANCE SPECIFICATION SHEET

CONNECTORS, RECEPTACLES, ELECTRICAL, COAXIAL, RADIO FREQUENCY, SERIES SMB (UNCABLED, MALE, JAMNUT 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.

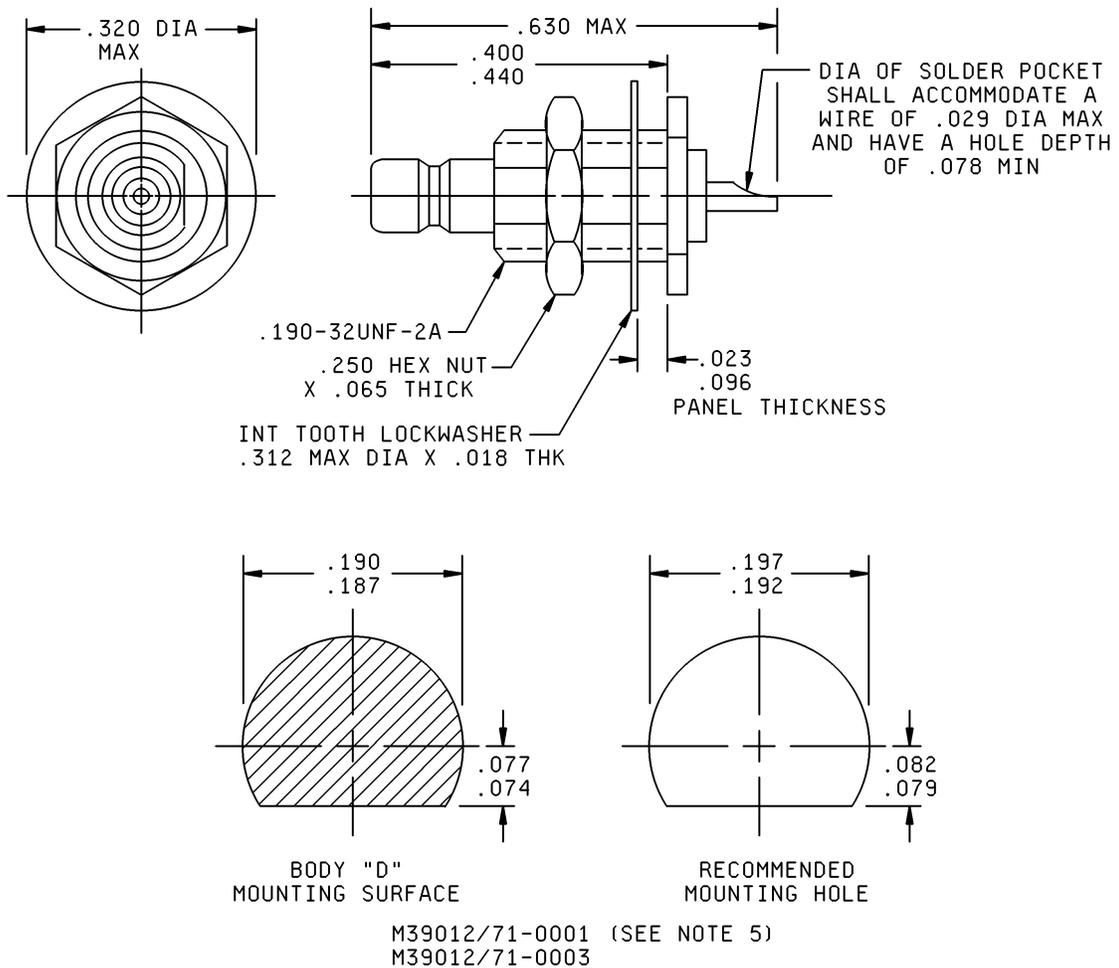
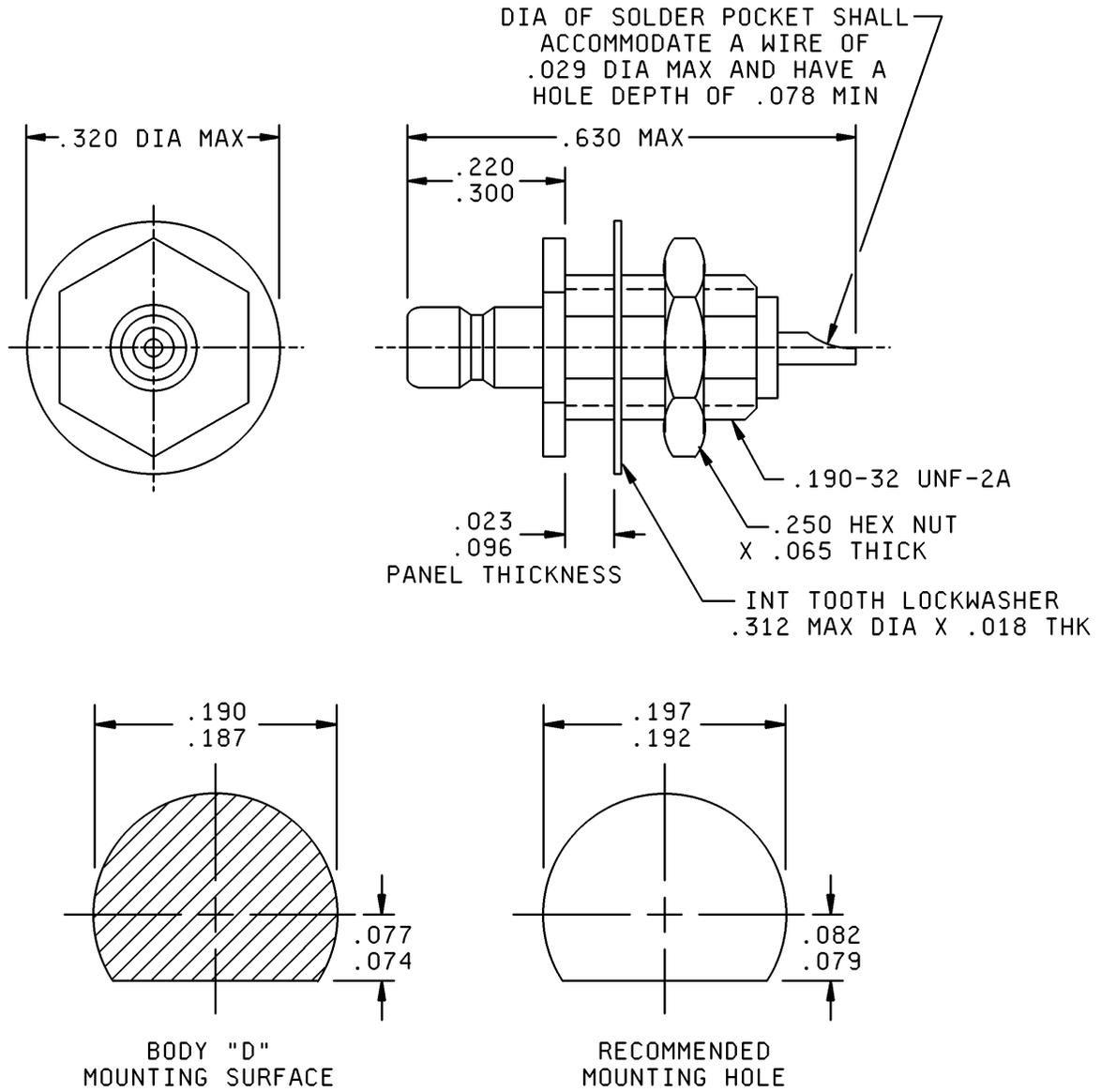


FIGURE 1. General configuration.

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M39012/71-0002 (SEE NOTE 5)
M39012/71-0004

FIGURE 1. General configuration – Continued.

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Inches	mm	Inches	mm	Inches	mm
.018	0.46	.079	2.01	.220	5.59
.023	0.58	.082	2.08	.300	7.62
.029	0.74	.096	2.44	.312	7.92
.065	1.65	.187	4.75	.320	8.13
.074	1.88	.190	4.83	.400	10.16
.077	1.96	.192	4.88	.440	11.18
.078	1.98	.197	5.00	.630	16.00

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Wrench flats are to accommodate standard wrench opening in accordance with FED-STD-H28, appendix 10.
4. All undimensioned pictorial configurations are for reference purposes only.
5. Connector bodies shall be gold plated in accordance with ASTM B488, type II, code C, class 1.27.
6. Series SMB, pin contact interface in accordance with MIL-STD-348.

FIGURE 1. General configuration - Continued.

ENGINEERING DATA:

Nominal impedance: 50 ohms.

Frequency range: 0 to 4 GHz.

Voltage rating: 335 V rms maximum at sea level; 85 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: Not applicable.

Torque: Not applicable.

Coupling proof torque: Not applicable.

Inspection conditions: Not applicable.

Mating characteristics: See MIL-STD-348.

Hermetic seal: Not applicable.

Leakage (pressurized connectors): Not applicable.

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Insulation resistance: In accordance with MIL-STD-202, method 302, test condition B, 1,000 megohms minimum.

Center contact retention:

Axial force: 6 pounds minimum axial force from mating end; 4.0 pounds from opposite end.

Radial torque: 3 inch-ounces, minimum.

Resistance to test prod damage: Not applicable.

Salt atmosphere (corrosion): In accordance with MIL-STD-202 method 101, test condition B.

Voltage standing wave ratio (VSWR): Not applicable.

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

Contact resistance: In milliohms, maximum.

	<u>Initial</u>	<u>After environment</u>
Center contact:	6.0	8.0
Outer contact:	1.0	Not applicable

Dielectric withstanding voltage at sea level: In accordance with MIL-STD-202, method 301. 1,000 V rms, minimum at sea level.

Vibration, high frequency: In accordance with MIL-STD-202, method 204, test condition B.

Shock: In accordance with MIL-STD-202, method 213, test condition B.

Thermal shock: In accordance with MIL-STD-202, method 107, test condition B.

Moisture resistance: Not applicable.

Corona level: Not applicable.

RF high potential withstanding voltage:

Voltage and frequency: 600 V rms, tested at a frequency from 5 to 7.5 MHz.

Leakage current: Not applicable.

Cable retention force: Not applicable.

Coupling mechanism retention force: Not applicable.

RF leakage: Not applicable.

RF insertion loss: Not applicable.

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Part or Identifying Number (PIN): M39012/71 (dash number in table I).

Group qualification: See table II.

TABLE I. PIN's

PIN M39012/71-	Type of mount
0001, 0003, 4001	Rear
0002, 0004, 4002	Front

TABLE II. Group qualification.

Group	Submission and retention of qualification of any of the following connectors M39012/71-	Qualifies the following connectors M39012/71-
I	0001 0002	0001, 0003 <u>1/</u> 0002, 0004 <u>1/</u>

1/ Salt atmosphere (corrosion) and contact resistance test data must be submitted to DSCC-VQ before qualification approval may be granted.

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. 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 and relationship to the last previous issue.

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

- MIL-STD-348
- MIL-STD-202
- ASTM B488
- FED-STD-H28

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CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 5935-2009-106)

Review activities:

Army - AT, AV, EA, MI
Navy - AS, MC, OS, SA, 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 <https://assist.daps.dla.mil>.