

INCH-POUND

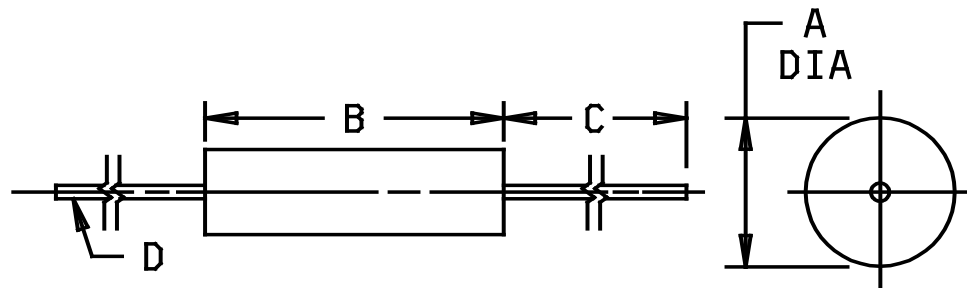
MIL-PRF-39010/9C
W/AMENDMENT 2
14 December 2022
SUPERSEDING
MIL-PRF-39010/9C
W/AMENDMENT 1
6 September 2018

PERFORMANCE SPECIFICATION SHEET

COILS, FIXED, RADIO FREQUENCY, MOLDED, MICROMINIATURE (IRON CORE), ESTABLISHED RELIABILITY AND NONESTABLISHED RELIABILITY

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-39010.



Letter	Dimensions are in inches with metric equivalents (mm) in parentheses		Dimensions are in inches with metric equivalents (mm) in parentheses	
	Minimum		Maximum	
A	.085	(2.16)	.105	(2.67)
B	.240	(6.10)	.260	(6.60)
C	1.250	(31.75)	1.626	(41.30)
D	.0185	(0.470)	.0215	(0.546)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.

FIGURE 1. Dimensions and configuration.

AMSC N/A
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

FSC 5950



REQUIREMENTS:

Interface and physical dimensions: See figure 1.

Material: Iron core.

Weight: 0.01 ounce maximum.

Operating temperature range: -55°C to +105°C.

Dielectric withstanding voltage: [MIL-STD-202-301](#); test voltage of 1,000 V rms.

Barometric pressure: [MIL-STD-202-105](#); test condition C, 70,000 feet with a test voltage of 300 V rms.

Electrical characteristics: See table I and table II.

Inductance: See table I.

Inductance tolerance: See table I.

Q values: See table I.

Self-resonant frequency: See table I.

DC resistance: See table I.

Temperature rise: 15°C.

Terminal pull: 5 pounds.

Part or Identifying Number (PIN): M39010/09 (dash number from table I).

Supersession data: This specification supersedes MS75084.

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TABLE I. Electrical characteristics (initial) and dash numbers.

Dash number <u>1/</u>	Inductance μ H	Inductance tolerance $\pm$ percent	Q minimum	Test frequency (MHz)	Self- resonant frequency minimum (MHz)	DC resistance (25°C) maximum (ohms)	Rated dc current (mA) <u>2/</u>
A1R1**	1.1	5	25	7.9	150	.18	590
A1R2**	1.2	5, 10	25	7.9	150	.18	590
A1R3**	1.3	5	25	7.9	140	.22	535
A1R5**	1.5	5, 10	28	7.9	140	.22	535
A1R6**	1.6	5	28	7.9	125	.30	455
A1R8**	1.8	5, 10	30	7.9	125	.30	455
A2R0**	2.0	5	30	7.9	115	.40	395
A2R2**	2.2	5, 10	30	7.9	115	.40	395
A2R4**	2.4	5	30	7.9	100	.55	335
A2R7**	2.7	5, 10	37	7.9	100	.55	335
A3R0**	3.0	5	37	7.9	90	.85	270
A3R3**	3.3	5, 10	45	7.9	90	.85	270
A3R6**	3.6	5	45	7.9	80	1.00	250
A3R9**	3.9	5, 10	45	7.9	80	1.00	250
A4R3**	4.3	5	45	7.9	75	1.20	230
A4R7**	4.7	5, 10	45	7.9	75	1.20	230
A5R1**	5.1	5	45	7.9	65	1.80	185
A5R6**	5.6	5, 10	50	7.9	65	1.80	185
A6R2**	6.2	5	50	7.9	60	2.00	175
A6R8**	6.8	5, 10	50	7.9	60	2.00	175
A7R5**	7.5	5	50	7.9	55	2.70	155
A8R2**	8.2	5, 10	55	7.9	55	2.70	155
A9R1**	9.1	5	55	7.9	50	3.70	130
A100**	10.0	5, 10	55	7.9	50	3.70	130

See footnotes at end of table.

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TABLE I. Electrical characteristics (initial) and dash numbers - Continued.

Dash number <u>1/</u>	Inductance μ H	Inductance tolerance $\pm$ percent	Q minimum	Test frequency (MHz)	Self- resonant frequency minimum (MHz)	DC resistance (25°C) maximum (ohms)	Rated dc current (mA) <u>2/</u>
A110**	11.0	5	45	2.5	40	2.70	130
A120**	12.0	5, 10	45	2.5	40	2.70	155
A130**	13.0	5	40	2.5	35	2.80	150
A150**	15.0	5, 10	40	2.5	35	2.80	150
A160**	16.0	5	40	2.5	30	3.10	145
A180**	18.0	5, 10	50	2.5	30	3.10	145
A200**	20.0	5	50	2.5	25	3.30	140
A220**	22.0	5, 10	50	2.5	25	3.30	140
A240**	24.0	5	50	2.5	20	3.50	135
A270**	27.0	5, 10	50	2.5	20	3.50	135

1/ The complete dash number will include two additional letters (indicated by **). The first additional letter will indicate the inductance tolerance and the second additional letter will indicate the product level (e.g., C, M, P, R, S) and will be added to the end of the dash number.

2/ The rated dc current is based on 90°C ambient temperature with a 15°C rise.

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TABLE II. Electrical characteristics (final). 1/

Inspection Group	Allowable variation from initial measurement	Allowable variation from initial measurement	Allowable percent from specified minimum value in electrical characteristics (initial) table	Allowable percent from specified minimum value in electrical characteristics (initial) table
	Inductance (percent)	DC resistance	Self-resonant frequency	Q
Qualification inspection				
Group II	±2			-10
Group IV	±5	±(3% +.001 ohm)	<u>2/</u>	-10
Group V	±5	±(2% +.001 ohm)	<u>2/</u>	-15
Quality conformance inspection Group B				
Subgroup 1	±5	±(2% +.001 ohm)	<u>2/</u>	-15
Subgroup 3	±2			-10
Subgroup 4	±5	±(3% +.001 ohm)	<u>2/</u>	-10

1/ Test fixture allowance of +.01 μH shall be added to all change in inductance limits ±(_ percent +.01 μH).

2/ The self-resonant frequency shall be not less than the value specified in table I.

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-39010](#), this document references the following:

MIL-STD-202-105, MIL-STD-202-301

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I Custodians:

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

Preparing activity:
DLA - CC

Review activities:

Army - AR, CR4, MI
Navy - AS, CG, MC, OS, SH
Air Force - 19

(Project 5950-2022-077)

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