

INCH-POUND

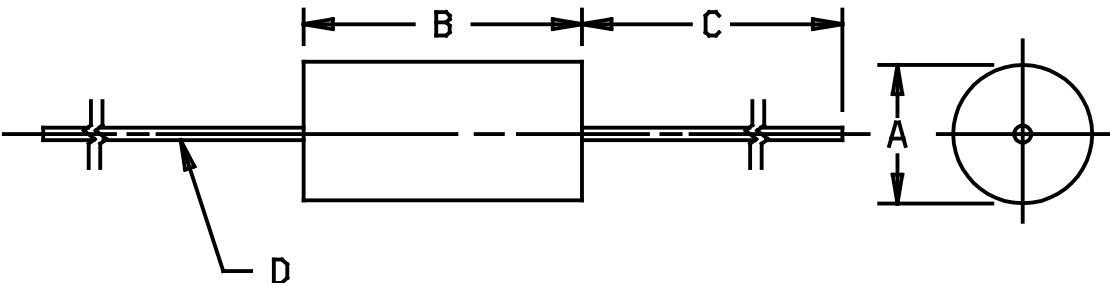
MIL-PRF-39010/6E
W/AMENDMENT 2
14 December 2022
SUPERSEDING
MIL-PRF-39010/6E
W/AMENDMENT 1
6 September 2018

PERFORMANCE SPECIFICATION SHEET

COILS, FIXED, RADIOFREQUENCY, MOLDED, MICROMINIATURE
(PHENOLIC CORE), ESTABLISHED RELIABILITY AND
NON-ESTABLISHED 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	.146 (3.71)	.166 (4.22)
B	.365 (9.27)	.385 (9.78)
C	1.250 (31.75)	1.626 (41.30)
D	.023 (0.58)	.027 (0.69)

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

FIGURE 1. Dimensions and configuration.



REQUIREMENTS:

Interface and physical dimensions: See figure 1.

Material: Phenolic core.

Weight: 0.03 ounce maximum.

Operating temperature range: -55°C to +125°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 200 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: 35°C.

Terminal pull: 5 pounds.

Part or Identifying Number (PIN): M39010/06 (dash number from table I).

Supersession data: This specification supersedes MS18130.

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

Dash number 1/	Inductance μH	Inductance tolerance ± percent	Q minimum	Test frequency (MHz)	Self- resonant frequency minimum (MHz)	DC resistance (25°C) maximum (ohms)	Rated dc current (mA) 2/
BR15**	.15	5, 10, 20	50	25.0	525	0.030	2,450
BR16**	.16	5	50	25.0	460	0.055	1,810
BR18**	.18	5, 10	50	25.0	460	0.055	1,810
BR20**	.20	5	50	25.0	460	0.055	1,810
BR22**	.22	5, 10, 20	50	25.0	460	0.055	1,810
BR24**	.24	5	45	25.0	360	0.090	1,400
BR27**	.27	5, 10	45	25.0	360	0.090	1,400
BR30**	.30	5	45	25.0	360	0.090	1,400
BR33**	.33	5, 10, 20	45	25.0	360	0.090	1,400
BR36**	.36	5	45	25.0	310	0.12	1,225
BR39**	.39	5, 10	45	25.0	310	0.12	1,225
BR43**	.43	5	45	25.0	310	0.12	1,225
BR47**	.47	5, 10, 20	45	25.0	310	0.12	1,225
BR51**	.51	5	45	25.0	280	0.135	1,150
BR56**	.56	5, 10	50	25.0	280	0.135	1,150
BR62**	.62	5	50	25.0	250	0.150	1,100
BR68**	.68	5, 10	50	25.0	250	0.150	1,100
BR75**	.75	5	50	25.0	220	0.220	900
BR82**	.82	5, 10	50	25.0	220	0.220	900
BR91**	.91	5	50	25.0	200	0.290	785
B1R0**	1.00	5, 10	50	25.0	200	0.290	785
B1R1**	1.10	5	33	7.9	180	0.420	650
B1R2**	1.20	5, 10	33	7.9	180	0.420	650
B1R3**	1.30	5	33	7.9	160	0.500	600
B1R5**	1.50	5, 10	33	7.9	160	0.500	600
B1R6**	1.60	5	33	7.9	150	0.650	525
B1R8**	1.80	5, 10	33	7.9	150	0.650	525
B2R0**	2.00	5	33	7.9	135	0.950	435
B2R2**	2.20	5, 10	33	7.9	135	0.950	435
B2R4**	2.40	5	33	7.9	120	1.20	385
B2R7**	2.70	5, 10	33	7.9	120	1.20	385
B3R0**	3.00	5	33	7.9	110	2.00	300

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>
B3R3**	3.30	5, 10	33	7.9	110	2.00	300
B3R6**	3.60	5	33	7.9	100	2.30	280
B3R9**	3.90	5, 10	33	7.9	100	2.30	280
B4R3**	4.30	5	33	7.9	90	2.60	260
B4R7**	4.70	5, 10	33	7.9	90	2.60	260

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 35°C rise.

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	$\pm(3\% + .001 \text{ ohm})$	<u>2/</u>	-10
Group V	± 5	$\pm(2\% + .001 \text{ ohm})$	<u>2/</u>	-15
Quality conformance inspection Group B				
Subgroup 1	± 5	$\pm(2\% + .001 \text{ ohm})$	<u>2/</u>	-15
Subgroup 3	± 2			-10
Subgroup 4	± 5	$\pm(3\% + .001 \text{ ohm})$	<u>2/</u>	-10

1/ Test fixture allowance of $+ .01 \mu\text{H}$ shall be added to all change in inductance limits $\pm$ (_ percent $+ .01 \mu\text{H}$).

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

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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

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 5950-2022-074)

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 this information above using the ASSIST Online database at <https://assist.dla.mil>.