INCH-POUND

MS18130E
2 July 2007
SUPERSEDING
MS18130D
18 January 1995

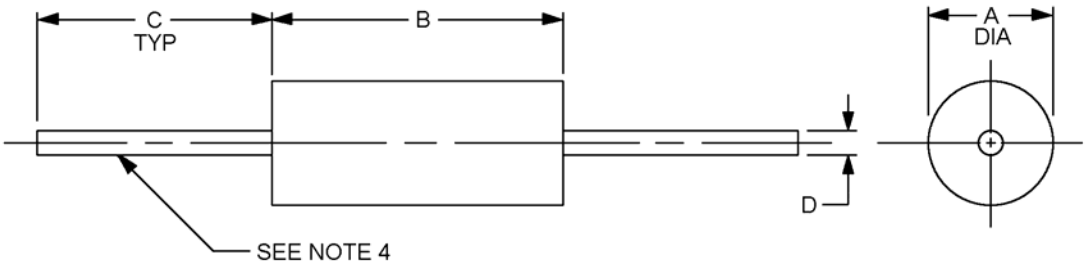
MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, MICROMINIATURE, (IRON CORE), TYPES LT4K074 TO LT4K089

Inactive for new design after 16 September 1985.
For new design use MIL-PRF-39010/6.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the products described herein shall consist of this specification and MIL-PRF-15305.



Ltr	Dimensions 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)	1.625 (41.28)
D	.023 (0.58)	.027 (0.69)

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. These coils are intended to be supported by their leads.
4. Solderable/weldable lead wire, AWG number 22.

FIGURE 1. Dimensions and configuration.

REQUIREMENTS:

Design, construction, and physical dimensions: See figure 1.

Style: LT4.

Grade: 1.
Class: B.

Weight: 0.0247 ounce, maximum.

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

Ambient temperature: 90°C maximum.

Temperature rise: 35°C maximum.

Terminal pull: 5 pounds minimum.

Altitude: 70,000 feet.

Shock, specified pulse: Method 213 of MIL-STD-202, test condition I, is applicable.

Dielectric withstanding voltage:

At sea level: Method 301 of MIL-STD-202, test voltage 1,000 V rms for a minimum of 60 seconds.

At reduced barometric pressure: Method 105 of MIL-STD-202, test condition C, test voltage 200 V rms for a minimum of 60 seconds.

Electrical characteristics: See table I and table II.

Inductance: See table I.

Q values: See table I.

Self-resonant frequency (SRF): See table I.

DC resistance (DCR): See table I.

Part or Identifying Number (PIN): MS18130- (dash number from table I).

TABLE I. Electrical characteristics (initial).

Dash number 1/ 2/	Type designation	Superseded MS PIN	Inductance (μH)	Q (min)	Test frequency (MHz)	SRF min (MHz)	DC resistance (ohms)	Rated dc current (mA)
-1	LT4K074	MS16225-1	0.15 ±20%	50	25	525	.03	2,450
-2	LT4K075	MS16225-2	0.22 ±20%	50	25	450	.055	1,810
-3	LT4K076	MS16225-3	0.33 ±20%	45	25	360	.09	1,400
-4	LT4K077	MS16225-4	0.47 ±20%	45	25	310	.12	1,225
-5	LT4K078	MS16225-5	0.56 ±10%	50	25	280	.135	1,150
-6	LT4K079	MS16225-6	0.68 ±10%	50	25	250	.15	1,100
-7	LT4K080	MS16225-7	0.82 ±10%	50	25	220	.22	900
-8	LT4K081	MS16225-8	1.00 ±10%	50	25	200	.29	785
-9	LT4K082	MS16225-9	1.20 ±10%	33	7.9	180	.42	650
-10	LT4K083	MS16225-10	1.50 ±10%	33	7.9	160	.50	600
-11	LT4K084	MS16225-11	1.80 ±10%	33	7.9	150	.65	525
-12	LT4K085	MS16225-12	2.20 ±10%	33	7.9	135	.95	435
-13	LT4K086	MS16225-13	2.70 ±10%	33	7.9	120	1.20	385
-14	LT4K087	MS16225-14	3.30 ±10%	33	7.9	110	2.00	300
-15	LT4K088	MS16225-15	3.90 ±10%	33	7.9	100	2.30	280
-16	LT4K089	MS16225-16	4.70 ±10%	33	7.9	90	2.60	260

1/ The dash number added to MS military standard number constitutes the MS PIN; for example MS18130-1.
2/ The former MS PIN's MS18130-17 through MS18130-26 have been superseded by MS14046-1 through MS14046-10, respectively.

TABLE II. Electrical characteristics (final). 1/

Inspection group	Allowable variation from Initial measurement		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 III	±5	±(3% +.001 ohm)	-8	-10
Group IV 2/	±5	±(2% +.001 ohm)	-10	-15
Conformance inspection group C				
Subgroup I	±2	---	---	-10
Subgroup II 2/	±5	±(2% +.001 ohm)	-10	-15
Subgroup III	±5	±(3% +.001 ohm)	-8	-10

1/ Test fixture allowance of +.01 μH shall be added to all change in inductance limits ±(_ percent +.01 μH).
2/ The polarizing voltage during the moisture resistance tests Is applied with the positive lead connected to the coil terminals tied together, and the negative lead connected to the metal strap.

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-15305, this document references MIL-STD-202.

Custodians:
Army – CR
Navy – EC
Air Force – 11
DLA - CC

Review activities:
Army – AR, CR4, MI
Navy – AS, MC, OS, SH
Air Force – 19

Preparing activity:
DLA – CC

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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.