



DEFENSE LOGISTICS AGENCY  
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July 29, 2026

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION.

SUBJECT: PROPOSED AMMENDMENT OF MS75103A Project #: 5950-2026-030.

The initial draft of this document is now available for viewing and downloading from the DLA Weapons Support (Columbus) -VA website:

<https://landandmaritimeapps.dla.mil/programs/milspec/default.aspx>

This document is being amended. Based on internal engineering assessment, there is a need to update and maintain the document. Recent updates to MIL-STD-961 and a proposed omission in Table II -Electronic characteristics, drove the amendment.

Comments are required at this office within 30 days from the date of this letter. Comments received after this period will be retained for consideration during the next coordination cycle of this document. Comments submitted by military departments must be clearly identified as either **“Essential”** or **“Suggested.”** Essential comments must include justification and supporting data if applicable. Military review activities should forward their comments through their respective custodians, allowing sufficient time for consolidation of the department’s response. A lack of response to this draft is interpreted as concurrence.

If this document is of interest to you, please send your comments to : Mrs. Ami Banks, phone number: 614-693-0376, e-mail: [ami.banks@dla.mil](mailto:ami.banks@dla.mil), or mail to: DLA Weapons Support (Columbus), ATTN: VAT , P.O. Box 3990, Columbus, OH 43218-3990.

Sincerely,

/SIGNED/

Jim Eschmeyer  
Branch Chief,  
Electronic Components Branch

NOTE: This initial draft, dated 29 July 2026 prepared by DLA-CC, has not been approved and is subject to modification. DO NOT USE PRIOR TO APPROVAL. (Project 5950-2026-030)

INCH-POUND  
MS75103A  
W/AMENDMENT 1  
DRAFT  
SUPERSEDING  
MS75103A  
7 September 2007

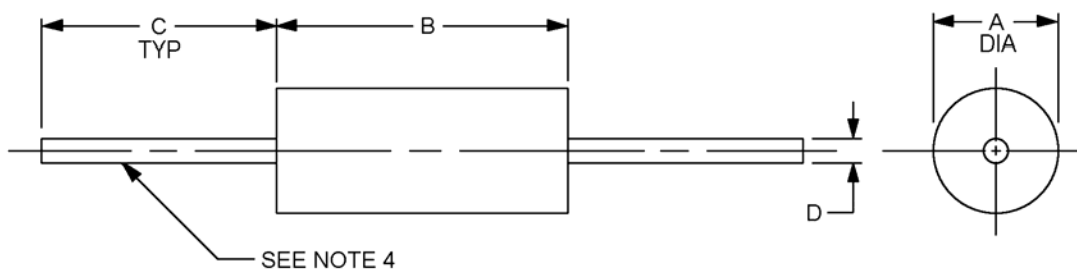
PERFORMANCE SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, SUBMINIATURE (IRON CORE),  
TYPES LT10K181 TO LT10K190, INCLUSIVE

Inactive for new design

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](#).



Dimensions in inches with metric equivalents  
(mm) in parentheses.

| LTR | Minimum       | Maximum       |
|-----|---------------|---------------|
| A   | .250 (6.35)   | .313 (7.95)   |
| B   | .875 (22.23)  | 1.000 (25.40) |
| C   | 1.250 (31.75) | 1.625 (41.28) |
| D   | .026 (0.66)   | .030 (0.76)   |

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 body.
4. Solderable/weldable lead wire, number 21 AWG.

FIGURE 1. Dimensions and configuration.

REQUIREMENTS:

Design, construction, and physical dimensions: See [figure 1](#).

Style: LT10

Grade: 1  
Class: A

Weight: 3.9 grams, maximum.

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

Ambient temperature: +90°C ±5°C.

Temperature rise: 15 °C, maximum.

Terminal pull: 5 pounds, minimum.

Altitude: 70,000 feet.

Shock (specified pulse): [MIL-STD-202-213](#), test condition I, is applicable. Dielectric  
withstanding voltage:

At sea level: [MIL-STD-202-301](#), test voltage 1,000 V rms for a minimum of 60 seconds.

Barometric pressure (reduced): [MIL-STD-202-105](#), test condition C, test voltage of 200 V rms  
for a minimum of 60 seconds.

Electrical characteristics: See [table I](#) and [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): MS75103 - (dash number from [table I](#)).

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TABLE 1. Electrical characteristics (initial).

| 1/<br>Dash<br>Number<br>MS75103 | Superseded<br>MS PIN | Inductance<br>( $\mu$ H)<br>$\pm 10\%$ | Q<br>(min) | Test<br>Frequency<br>(MHz) | SRF<br>Minimum<br>(MHz) | DC<br>resistance<br>Max.<br>(ohms) | Rated<br>DC current<br>(mA) |
|---------------------------------|----------------------|----------------------------------------|------------|----------------------------|-------------------------|------------------------------------|-----------------------------|
| -1                              | 91189-29             | 22.0                                   | 50         | 2.5                        | 24                      | 0.295                              | 725                         |
| -2                              | 91189-30             | 27.0                                   | 45         | 2.5                        | 22                      | 0.350                              | 660                         |
| -3                              | 91189-31             | 33.0                                   | 60         | 2.5                        | 19                      | 0.550                              | 525                         |
| -4                              | 91189-32             | 39.0                                   | 55         | 2.5                        | 18                      | 0.650                              | 485                         |
| -5                              | 91189-33             | 47.0                                   | 65         | 2.5                        | 16                      | 1.00                               | 390                         |
| -6                              | 91189-34             | 56.0                                   | 65         | 2.5                        | 14                      | 1.15                               | 360                         |
| -7                              | 91189-35             | 68.0                                   | 75         | 2.5                        | 13                      | 1.85                               | 285                         |
| -8                              | 91189-36             | 82.0                                   | 75         | 2.5                        | 12                      | 2.10                               | 265                         |
| -9                              | 91189-37             | 100.0                                  | 75         | 2.5                        | 12                      | 2.50                               | 245                         |
| -10                             | 91189-38             | 120.0                                  | 95         | 0.790                      | 10                      | 4.10                               | 195                         |

1/ The coils are directly interchangeable with former PIN's (MS91189-29 thru -38). The decrease in maximum operating temperature from 125°C to 105°C does not downgrade these coils but assures satisfactory operation at 105°C for a minimum of 2,000 hours of life, rather than a shorter period of operation at 125°C.

TABLE II. Electrical characteristics (final).

| Inspection<br>group                           | Allowable variation from<br>Initial measurement |                                                     | Allowable percent from specified minimum<br>value in electrical characteristics<br>(initial) table |                |
|-----------------------------------------------|-------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------|
|                                               | Inductance<br>(percent)                         | DC resistance                                       | Self-resonant<br>frequency                                                                         | Q              |
| Qualification<br>inspection                   |                                                 |                                                     |                                                                                                    |                |
| Group II                                      | $\pm 2$                                         | ---                                                 | ---                                                                                                | -10            |
| Group III                                     | $\pm 5$                                         | $\pm(3\% + .001 \text{ ohm})$                       | -8                                                                                                 | -10            |
| Group IV                                      | $\pm 5$                                         | $\pm(2\% + .001 \text{ ohm})$                       | -10                                                                                                | -15            |
| <del>Conformance<br/>inspection group C</del> |                                                 |                                                     |                                                                                                    |                |
| <del>Subgroup I</del>                         | <del><math>\pm 2</math></del>                   | <del>---</del>                                      | <del>---</del>                                                                                     | <del>-10</del> |
| <del>Subgroup II</del>                        | <del><math>\pm 5</math></del>                   | <del><math>\pm(2\% + .001 \text{ ohm})</math></del> | <del>-10</del>                                                                                     | <del>-15</del> |
| <del>Subgroup III</del>                       | <del><math>\pm 5</math></del>                   | <del><math>\pm(3\% + .001 \text{ ohm})</math></del> | <del>-8</del>                                                                                      | <del>-10</del> |

Application notes:

- 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.

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Amendment notations. The margins of this specification are marked with vertical line 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. [MIL-PRF-15305](#), [MIL-STD-202](#)

Custodians:

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

Preparing activity:  
DLA – CC

Project 5950-2026-0

Review activities:

Army – AR, MI  
Navy – AS, MC, OS, SH  
Air Force – 19

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>.