

INCH-POUND

MIL-R-19365C
AMENDMENT 5
13 February 1998
SUPERSEDING
AMENDMENT 4
24 April 1996

MILITARY SPECIFICATION

RESISTORS, ADJUSTABLE, WIRE-WOUND, POWER

This amendment forms a part of MIL-R-19365C, dated 18 March 1960, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

Under title, add: "INACTIVE FOR DESIGN AFTER DATE OF AMENDMENT 2".

PAGES 3 and 4

Section 2, delete in its entirety and substitute as follows:

"2. APPLICABLE DOCUMENTS

"2.1 General. The documents listed in this section are specified in section 3, 4, and 5 of this specification. The section does not include documents cited in other sections of this specification or recommended for additional information or as samples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3, 4, and 5 of this specifications, whether or not they are listed.

"2.2 Government documents

"2.2.1 Specifications, standards, and handbooks The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

STANDARDS

DEPARTMENT OF DEFENSE

- MIL-STD-202 - Test Methods for Electronic and Electrical Components Parts.
- MIL-STD-1285 - Marking of Electrical and Electronic Parts.

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HANDBOOKS

DEPARTMENT OF DEFENSE

Handbook H28 - Screw-Thread Standards for Federal Services.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Standardization Document Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

"2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSINC SL Z540-1 - Calibration Laboratories and Measuring and Test Equipment - General Requirements.

INTERNATIONAL ORGANIZATION for STANDARDS (ISO)

ISO 10012-1 - Quality Assurance Requirements for Measuring Equipment - Part 1: Meteorological Confirmation System for Measuring Equipment.

(Application for copies should be addressed to the American National Standards Institute, 11 West 42nd Street, New York, NY 10036-8002.)

"2.4 Order of precedence. In event of a conflict between the text of this document and the references cited herein (except for related associated specifications), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained."

PAGE 6

3.19, line 2: Delete "MIL-STD-130" and substitute "MIL-STD-1285".

PAGE 15

4.1 and 4.1.1, delete and substitute:

"4.1 Responsibility for inspection Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserved the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements."

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4.1.1.1, delete and substitute:

"4.1.1 Test equipment and inspection facilities The supplier shall establish and maintain a calibration system in accordance with ANSINC SL Z540-1, ISO-10012-1, or equivalent system as approved by the qualifying activity."

4.2, delete and substitute:

"4.2 Classification of inspections The inspections specified herein are classified as follows:

- a. Qualification inspection (see 4.4).
- b. Quality conformance inspection (see 4.5)."

4.3, delete and substitute:

"4.3 Inspection conditions Unless otherwise specified herein, all inspections shall be performed in accordance with the test conditions specified in the "GENERAL REQUIREMENTS" of MIL-STD-202."

* 4.4.4, delete and substitute (as added by amendment 2):

"4.4.4 Retention of qualification Once a year, the manufacturer shall compile a summary of the results of quality conformance inspections in the form of a retention of qualification report, and forward it to the qualifying activity within 30 days from the end of the reporting period as the basis of continued qualification approval. In addition, the manufacturer shall immediately notify the qualifying activity whenever the group B inspection data indicates failure of the qualified product to meet the requirements of the specification. Continuation shall be based on the evidence that over the 1-year period, the following has been met:

- a. The manufacturer has not modified the design of the item.
- b. The specification requirements for the item have not been amended so far as to affect the character of the item.
- c. Lot rejection for group A inspection does not exceed the group A sampling plan.
- d. The requirements for group B inspection are met.

When group B requirements are not met and the manufacturer has taken corrective action satisfactory to the government, group B retesting shall be instituted. A summary of the retesting shall be forwarded to the qualifying activity within 30 days after completion of the retest. All reports are to be certified by a responsible company official and the government inspector."

4.5 and 4.5.1, delete and substitute:

"4.5 Quality conformance inspection

"4.5.1 Inspection of product for delivery Inspection of product for delivery shall consist of groups A and B inspection."

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PAGE 16

4.5.1.3.1, delete and substitute:

"4.5.1.3.1 Sampling plan. A sample of parts from each inspection lot shall be randomly selected in accordance with table IV-1, if one or more defects are found, the lot shall be rescreened and defects removed. After screening and removal of defects, a new sample of parts shall be randomly selected in accordance with table IV-1, if one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification. Resistance values shall be representative, and where possible, in proportion to the resistors in the inspection lot."

TABLE IV, delete and substitute:

"TABLE IV. Group A inspection

| Test | Requirement paragraph | Method paragraph | Number of samples |
|-----------------------------------|-----------------------|------------------|-------------------|
| DC resistance | 3.7 | 4.6.1 | See 4.5.1.3.1 |
| Visual and mechanical examination | | 4.6.2 | |
| Overall body dimensions | 3.4 | | |
| Other physical dimensions | 3.4 | | |
| Terminals | 3.4.3, 3.4.3.1 | | |
| Marking | 3.19 | | |
| Workmanship | 3.20, 3.20.1 | | |

Following TABLE IV, add the following new table:

"TABLE IV-1. Group A sampling plan.

| Lot size | Sample size |
|------------------|-------------|
| 2 to 13 | 100% |
| 14 to 150 | 13 |
| 151 to 280 | 20 |
| 281 to 500 | 29 |
| 501 to 1200 | 34 |
| 1201 to 3200 | 42 |
| 3201 to 10000 | 50 |
| 10001 to 35000 | 60 |
| 35001 to 150000 | 74 |
| 150001 to 500000 | 90 |
| 500000 and over | 102 |

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4.5.1.4, delete and substitute:

"4.5.1.4 Group B inspection Group B inspection shall consist of the tests specified in table V, in the order shown. They shall be performed on sample units that have been subjected to and have passed the group A inspection, unless the Government considers it more practical to select a separate sample from the lot for group B inspection."

TABLE V, delete and substitute:

"TABLE V. Group B inspection

| Test | Requirement paragraph | Method paragraph | Number of samples |
|---------------------------------|-----------------------|------------------|-------------------|
| Temperature | 3.9 | 4.6.4 | See 4.5.1.4.1 |
| Dielectric withstanding voltage | 3.10 | 4.6.5 | |
| Insulation resistance | 3.11 | 4.6.6 | |
| Thermal shock | 3.13 | 4.6.8 | |
| Momentary overload | 3.14 | 4.6.9 | |

4.5.1.4.1, delete and substitute:

"4.5.1.4.1 Sampling plan A sample of parts shall be randomly selected in accordance with table VI, if one or more defects are found, the lot shall be rescreened and defects removed. After screening and removal of defects, a new sample of parts shall be randomly selected in accordance with table VI, if one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

4.5.1.5, delete in its entirety.

TABLE VI, delete and substitute:

"TABLE VI. Group B sampling plan.

| Lot size | Sample size |
|------------------|-------------|
| 2 to 5 | 100% |
| 6 to 50 | 5 |
| 51 to 90 | 7 |
| 91 to 150 | 11 |
| 151 to 280 | 13 |
| 281 to 500 | 16 |
| 501 to 1200 | 19 |
| 1201 to 3200 | 23 |
| 3201 to 10000 | 29 |
| 10001 to 35000 | 35 |
| 35001 to 150000 | 40 |
| 150001 to 500000 | 40 |
| 500000 and over | 40 |

4.5.1.5.1, 4.5.1.5.2, and 4.5.1.5.3, delete in their entirety.

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4.5.2, delete and substitute following:

"4.5.2 Inspection of preparation for delivery Sample packages and packs and the inspection of the preservation and packaging, packing, and marking for shipment and storage shall be in accordance with the requirements of section 5 and the documents specified therein."

4.5.3, delete in its entirety (as added by amendment 2).

PAGE 19

4.6.7, line 15: Delete "25° C" and substitute "25° C +5° C, -0° C."

PAGE 20

4.6.10(a)2., line 9: Delete "bolts" and substitute "plates".

PAGE 21 AND 22

Section 5, delete in its entirety and substitute:

"5. PACKAGING

"5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department of Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity."

PAGE 23

6.1(d), delete "5.1.1" and substitute "5".

6.1(e), delete "(See 5.2.1)" and substitute "(see 5)".

* 6.2, last sentence, delete and substitute:

"The activity responsible for the qualification of this product is the Defense Supply Center, Columbus, DSCC-VQP, 3990 E. Broad St., Columbus, OH 43213-1199. DSCC-VQP may be reached at the DSCC web site, www.dscc.dla.mil/VW/q/Vqp."

6.5, line 1, delete "Mhen" and substitute "When".

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20.2, line 3, delete "table II" substitute "table III".

The margins of this amendment are marked with an asterisk to indicate where changes from the previous amendment 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 amendment.

CONCLUDING MATERIAL

Custodians:

Army - CR
Navy - EC
Air Force - 85

Preparing activity:

DLA - CC

Review activities:

Army - AR, AT, AV, CR4, MI
Navy - AS, CG, MC, OS
Air Force - 17, 19, 80

(Project 5905-1527)