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INCH-POUND
MIL-PRF-39007/7G
3 July 1997
SUPERSEDING
MIL-R-39007/7F
20 February 1990

PERFORMANCE SPECIFICATION

RESISTOR, FIXED, WIRE-WOUND (POWER TYPE), NONESTABLISHED RELIABILITY, ESTABLISHED RELIABILITY, AND SPACE LEVEL STYLE RWR78

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

1. SCOPE

1.1 Scope. This specification covers the associated requirements for style RWR78, nonestablished reliability, established reliability, and space level, power type, wire-wound, fixed resistor. These resistors are available with terminal types "S" (solderable, inductively wound), "W" (weldable, inductively wound), "N" (solderable, noninductively wound), and "Z" (weldable, noninductively wound).

1.2 Part or Identifying Number (PIN). Resistors covered by this specification are identified by a PIN which consists of the style designation, terminal and winding, coded resistive value, tolerance, and product level designation. The PIN is derived in accordance with MIL-PRF-39007 and is in the following form:

RWR78	S	1000	F	S
Style	Terminal wire and winding	Coded resistance	Resistance tolerance	Product level designator

Beneficial comment (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be address to: US Army Communications - Electronics Command, ATTN: AMSEL-LC-LEO-E-EP, Fort Monmouth, NJ 07703-5023 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A
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FSC 5905

2. APPLICABLE DOCUMENTS

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

SPECIFICATION

DEPARTMENT OF DEFENSE

MIL-PRF-39007 - Resistors, Fixed, Wire-Wound (Power Type), NonEstablished Reliability, Established Reliability, and Space Level, General Specification for.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Defense Printing Service Detachment Office, Building 4D, Customer Service, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 General. The requirements for acquiring the product described herein shall consist of this document and MIL-PRF-39007.

3.2 Interface and physical dimension. The resistor shall meet the interface and physical dimensions specified on figure 1.

3.2.1 Noninductive windings. Noninductively wound resistors shall be identified by terminal designation N to indicate a solderable terminal and Z to indicate a weldable terminal.

3.3 Minimum resistance value for all terminations (S, W, N, Z). For inductively wound resistors, the minimum resistance value shall be 0.1 ohm. For resistance tolerance B (.1 percent), minimum resistance value shall be .499 ohm.

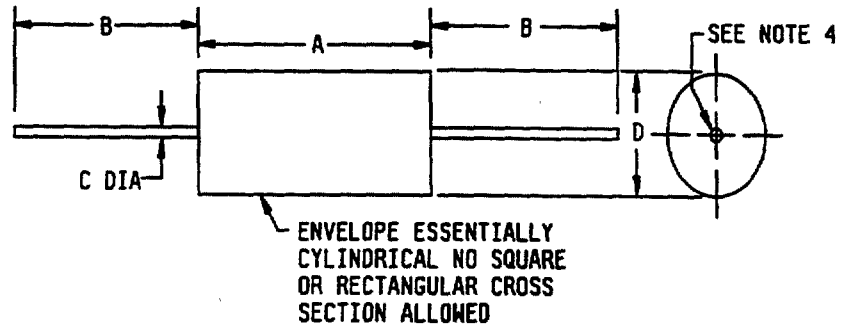
3.4 Maximum resistance value for S and W (inductively wound). For resistors having inductive characteristic S and W designation, the maximum resistance value shall be 39,200 ohms.

3.5 Maximum resistance value for N and Z type resistors. For resistors having noninductive characteristic N and Z designation, the maximum resistance value shall be 19,600 ohms.

3.6 Power rating. The power rating shall be 10 watts at +25°C.

3.7 Weight. The maximum weight shall be .02646 pound (12 grams); for N type resistors, the maximum weight shall be .02866 pound (13 grams).

3.8 Terminal lead types. This style resistor is available in both solderable (S and N) and weldable (W



and Z) leads.

Inches	mm
.002	0.05
.031	0.79
.032	0.81
.040	1.02
.062	1.57
.375	9.53
1.500	38.10
1.780	45.21

Standard style	Dimensions			
	A ±.062	B min	C ±.002	D ±.031
RWR78	1.780	1.500	.040	.375

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimension A is clean lead to clean lead.
4. Lead concentric tolerance is to be measured at the point of lead egress from the resistor body to be within .032 TIR.

FIGURE 1. Style RWR78 resistor.

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4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection shall be in accordance with MIL-PRF-39007.

4.2 Short-time overload. The duration of applied voltage shall be 5 seconds. Voltage applied shall be equivalent to 10 times rated wattage.

4.3 Dielectric withstanding voltage.

4.3.1 Atmospheric pressure. The magnitude of test voltage shall be 1,000 volts rms.

4.3.2 Barometric pressure (reduced). The test voltage shall be 300 volts rms.

4.4 Terminal strength. The applied force shall be 10 pounds.

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 or 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.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Notes. In addition to the notes specified herein, the notes specified in MIL-PRF-39007 are applicable to this specification.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, date of the specification, and complete PIN.
- b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1).
- c. Packaging requirements (see 5.1).

6.3 MIL-R-26 substitution data. Resistors of this specification regardless of their failure rate designation are substitutes for resistors of the same resistance value, tolerance, and appropriate characteristics specified in the inactive specification MIL-R-26/5, style RWR78. Also, resistors of this specification are substitutes for new design for specification MIL-R-26/4, style RW68. However, they are not directly interchangeable.

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6.3.1 MIL-PRF-39007/2 substitution data. For replacement purposes only, use style RWR78 of MIL-PRF-39007/7 over the deleted RWR68 of MIL-R-39007/2.

6.4 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:

Army - CR
Navy - EC
Air Force - 85
NASA - NA

Preparing activity:

Army - CR

Agent:

DLA - CC

Review activities:

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

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