

INCH-POUND

MIL-PRF-39007/10H

17 October 2008

SUPERSEDING

MIL-PRF-39007/10G

3 July 1997

## PERFORMANCE SPECIFICATION

### RESISTOR, FIXED, WIRE-WOUND (POWER TYPE), NONESTABLISHED RELIABILITY, ESTABLISHED RELIABILITY, AND SPACE LEVEL STYLE RWR84

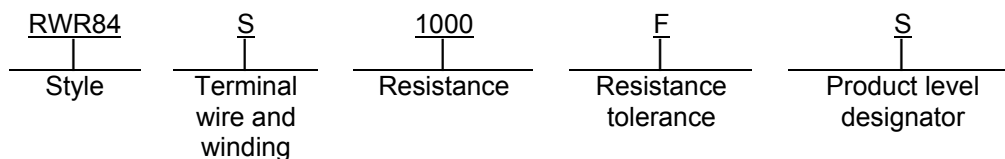
This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall  
consist of this specification sheet and [MIL-PRF-39007](#).

#### 1. SCOPE

1.1 Scope. This specification covers the associated requirements for style RWR84, 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 designator. The PIN is derived in accordance with [MIL-PRF-39007](#) and is in the following form:



Comments, suggestions, or questions on this document should be addressed to US Army Communications-Electronics FDEC, ATTN: AMSRD-CER-PR-D, Fort Monmouth, NJ 07703-5201 or emailed to [Jeffery.carver@us.army.mil](mailto:Jeffery.carver@us.army.mil). Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <http://assist.daps.dla.mil>.

AMSC N/A

FSC 5905

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

## 2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 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 users are cautioned that they must meet all specified requirements of documents cited in sections 3 and 4 of this specification, whether or not they are listed.

- \* 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 cited in the solicitation or contract.

### DEPARTMENT OF DEFENSE SPECIFICATIONS

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

- \* (Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)
- \* 2.3 Order of precedence. Unless otherwise noted herein or in the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), 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 and noninductively 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 12,400 ohms.

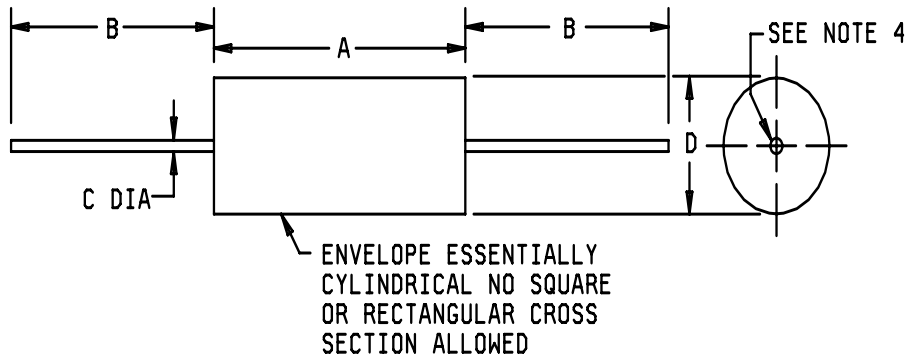
3.5 Maximum resistance value for N and Z type resistors. For resistors having noninductive characteristic N and Z designation, the maximum resistance value shall be 6,190 ohms.

- \* 3.6 Resistance temperature characteristic. The resistance temperature characteristic is resistance depended and is as specified in [table I](#).

\*

Table I. Resistance temperature characteristic.

Resistance range (ohms)	Resistance temperature characteristic (Reference to 25°C)
$0.1 \leq R \leq 0.499$	$\pm 650$ ppm
$0.499 < R \leq 1.0$	$\pm 400$ ppm
$1.0 < R \leq 10$	$\pm 50$ ppm
$10 < R \leq 158$	$\pm 30$ ppm
$158 < R$	$\pm 20$ ppm



Inches	mm
.002	0.05
.031	0.79
.032	0.81
.040	1.02
.062	1.57
.312	7.92
.875	22.23
1.500	38.10

Standard style	Dimensions			
	A $\pm .062$	B (min)	C $\pm .002$	D $\pm .031$
RWR84	.875	1.500	.040	.312

## 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.
5. Lead length for tape and reel packaging shall be 1 inch minimum.

FIGURE 1. Style RWR84 resistor.

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3.7 Power rating. The power rating shall be 7 watts at +25°C.

3.8 Weight. The maximum weight shall be .01103 pound (5 grams); for N type resistors the maximum weight shall be .01323 pound (6 grams).

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

### 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 packaging of material is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. 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, and date of this specification, the applicable associated specification, and the complete PIN (see 1.2).
- \* b. Unless otherwise specified (see 2.1), the versions of the individual documents referenced will be those in effect on the date of release of the solicitation.
- c. Packaging requirements (see 5.1).

6.3 MIL-R-26 substitution data. Resistors of this specification are substitutes for new design for specification MIL-R-26/4, styles RW55 and RW67. However, they are not directly interchangeable.

6.3.1 MIL-R-39007/6 substitution data. RWR74 is inactive for new design. RWR84 is a suitable substitute for new design configurations.

- \* 6.4 Changes from previous issue. The margins of this specification are marked with asterisks 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.

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Navy - EC  
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(Project 5905-2007-049)

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