

INCH-POUND

MIL-PRF-22097/3H  
31 August 2000  
SUPERSEDING  
MIL-R-22097/3G  
28 February 1974

PERFORMANCE SPECIFICATION  
RESISTORS, VARIABLE, NONWIRE WOUND  
(ADJUSTMENT TYPE, LEAD SCREW ACTUATED)  
STYLE RJ22

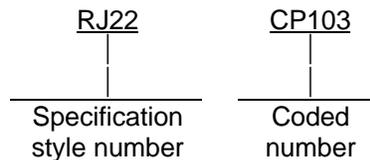
Inactive for new design after 28 February 1974 (see 6.3)

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 requirements for style RJ22, adjustment type, lead screw actuated, nonwire wound, variable resistors. This style is available in characteristic C and characteristic F.

1.2 Part or Identifying Number (PIN). Resistors covered by this specification is identified by a PIN which consists of the a style of this specification and a coded number. The PIN is in following form:



2. APPLICABLE DOCUMENT

2.1 General. The documents listed in this section are specified in sections 3 and 4 of the 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 documents cited in sections 3 and 4 of this specification, whether or not they are listed.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Supply Center, Columbus, ATTN: DSCC-VAT, Post Office Box 3990, Columbus, Ohio 43216-5000, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of the document or by letter.

AMSC N/A

FSC 5905

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

## MIL-PRF-22097/3H

### 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).

## SPECIFICATIONS

### DEPARTMENT OF DEFENSE

MIL-PRF-22097 - Resistor, Variable, Nonwire Wound (Adjustment Type), General Specification For.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Document Automation and Production Service, Building 4D, (DPM-DODSSP), 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.3 Order of precedence. In event conflict between the text of this document and the references cited herein (except for related associated specifications, specification sheets, or MS 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-22097.

3.2 Interface and physical dimensions. Resistors shall meet the interface and physical dimensions specified on figure 1, as applicable.

3.3 Power rating. The power rating shall be .5 watt for characteristic C and characteristic F.

3.4 Terminals. Characteristic C and characteristic F are available with L-type, P-type, W-type, and X-type terminals.

3.5 Nominal resistance value and maximum rated ac or dc working voltage. Nominal resistance values and maximum rated ac or dc working voltages shall be as specified in table I.

3.6 Actual effective electrical travel. Actual effective electrical travel shall be 20 turns minimum, and 45 turns maximum.

3.7 Operating torque. Operating torque shall be a maximum of 5 ounce-inches.

TABLE I. Nominal resistance value and maximum rated ac or dc working voltage.

Nominal resistance value	Maximum rated ac or dc working voltage per characteristic C and characteristic F	Nominal resistance value	Maximum rated ac or dc working voltage per characteristic C and characteristic F
<u>Ohms</u>	<u>Volts</u>	<u>Ohms</u>	<u>Volts</u>
10	2.23	10,000	70.7
20	3.1	20,000	100
50	5.0	25,000	111
100	7.0	50,000	158
200	10.0	100,000	223
500	15.8	200,000	300
1,000	22.3	250,000	300
2,000	31.6	500,000	300
5,000	50.0	1,000,000	300

4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection shall be in accordance with MIL-PRF-22097, and as specified herein.

4.2 Dielectric withstanding voltage. The magnitude of test voltage shall be 900 volts at atmospheric pressure, and 350 volts at reduced barometric pressure.

5. PACKAGING

5.1 Packaging. For acquisition purposes, packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel 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 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.)

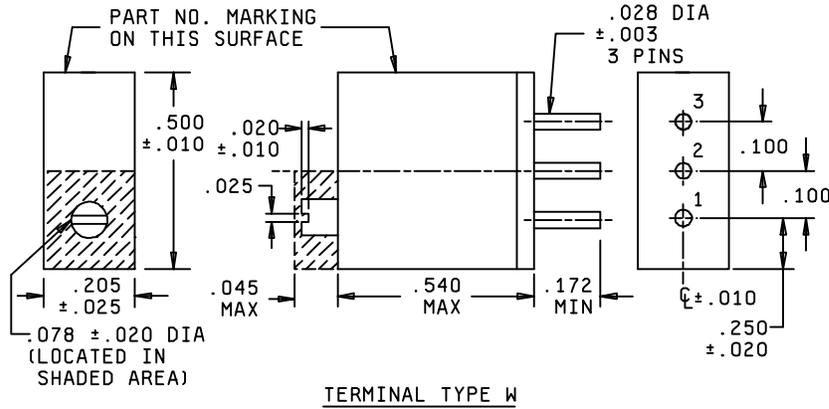
6.1 Intended use. The notes specified in MIL-PRF-22097 are applicable to this specification.

6.2 Acquisition requirements. Acquisition documents must specify the following.

- a. Title, number, and date of this specification.
- b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1).

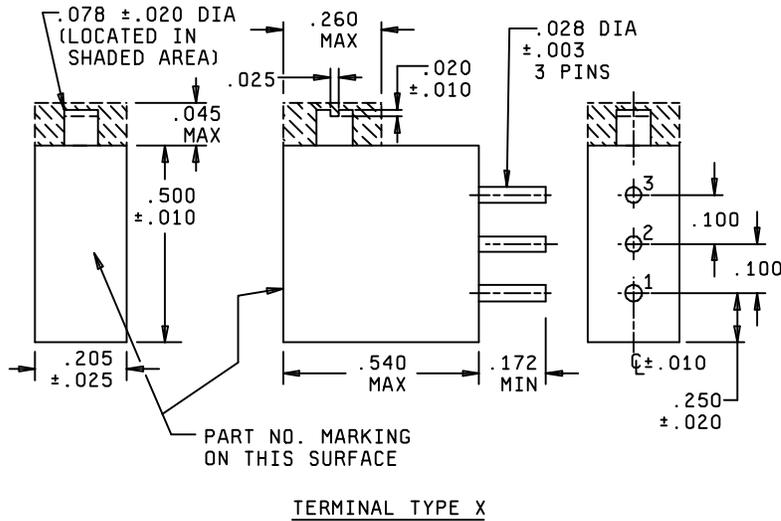


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TERMINAL TYPE W

Inches	mm
.003	0.08
.010	0.25
.020	0.51
.025	0.64
.028	0.71
.045	1.14
.078	1.98
.100	2.54
.172	4.37
.205	5.21
.250	6.35
.260	6.60
.500	12.70
.540	13.72



TERMINAL TYPE X

NOTES:

1. Dimensions are in inches.
2. Unless otherwise specified, tolerance is  $\pm .005$  (.13 mm).
3. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
4. The entire slot of the actuating screw must be above the surface of the unit.
5. For types P, W, and X, normal mounting means is by use of pins only.
6. The picturization of the styles above are given as representative of the envelope of the item. Slight deviations from the outline shown, which are contained within the envelope, and do not alter the functional aspects of the device are acceptable.
7. The three leads shall be of a stranded wire, AWG size 28 to 30, having a minimum length of 6 inches (152.4 mm); they shall be insulated with polytetrafluoroethylene, stripped  $.250 \pm .062$  inches ( $6.35 \pm 1.57$  mm) from the end and color coded.

FIGURE 1. Style RJ22 – Continued.

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6.3 Weight. The maximum weight is .085 ounces (2.4 grams).

6.4 Supersession data. Characteristic B has been deleted and are replaced by characteristic C. Style RT13, characteristic E of MIL-R-22097A is not covered by MIL-PRF-27208/4.

6.5 Substitution data. The resistors specified herein are not for use for new design. They are authorized for use in existing design contracts. Resistors specified in MIL-PRF-39035/2 are preferred for design and regardless of the failure rate designation can be used as substitutes for the inactive resistors of the same resistance value, tolerance, and characteristic performance of this specification

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

Custodians:

Army – CR  
Navy – EC  
Air Force – 11

Preparing activity:

DLA – CC  
(Project 5905-1582-03)

Review activities:

Army – AR, AT, AV, CR4, MI  
Navy – AS, MC, OS  
Air Force – 19, 99