

## PERFORMANCE SPECIFICATION

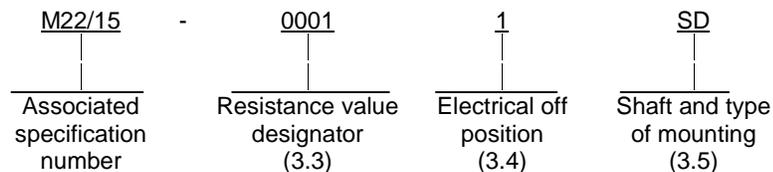
### RESISTORS, VARIABLE, (WIRE-WOUND, POWER TYPE), (ENCLOSED), STYLE RP05

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 RP05, variable, wire-wound, power type, enclosed resistors.

1.2 Part or Identifying Number (PIN). Variable resistors covered by this specification are identified by a PIN which is in the following form.



NOTE: The slash "/" and the dash "-" are needed in the procurement of this part.

#### 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 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).

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, OH 43216-5000 by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

## SPECIFICATION

## DEPARTMENT OF DEFENSE

MIL-PRF-22 - Resistors, Variable, (Wire Wound, Power 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 of a 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-22.

3.2 Interface and physical dimensions. The resistors shall meet the interface and physical dimensions specified in figure 1.

3.3 Nominal resistance and maximum current. The nominal total resistance and maximum current shall be as specified in table I.

TABLE I. Style RP05.

PIN <u>1/</u>	Type designator <u>1/</u>	Nominal total resistance (ohms)	Maximum current (amperes) <u>2/</u>
M22/15-0001---	RP05---100KK	10	.707
M22/15-0002---	RP05---150KK	15	.583
M22/15-0003---	RP05---250KK	25	.447
M22/15-0004---	RP05---350KK	35	.374
M22/15-0005---	RP05---500KK	50	.316
M22/15-0006---	RP05---750KK	75	.264
M22/15-0007---	RP05---101KK	100	.223
M22/15-0008---	RP05---151KK	150	.182
M22/15-0009---	RP05---201KK	200	.158
M22/15-0010---	RP05---251KK	250	.141
M22/15-0011---	RP05---351KK	350	.118
M22/15-0012---	RP05---501KK	500	.100
M22/15-0013---	RP05---751KK	750	.082
M22/15-0014---	RP05---102KK	1,000 <u>3/</u>	.071
M22/15-0015---	RP05---152KK	1,500 <u>3/</u>	.056
M22/15-0016---	RP05---252KK	2,500 <u>3/</u>	.045
M22/15-0017---	RP05---352KK	3,500 <u>3/</u>	.037
M22/15-0018---	RP05---502KK	5,000 <u>3/</u>	.032

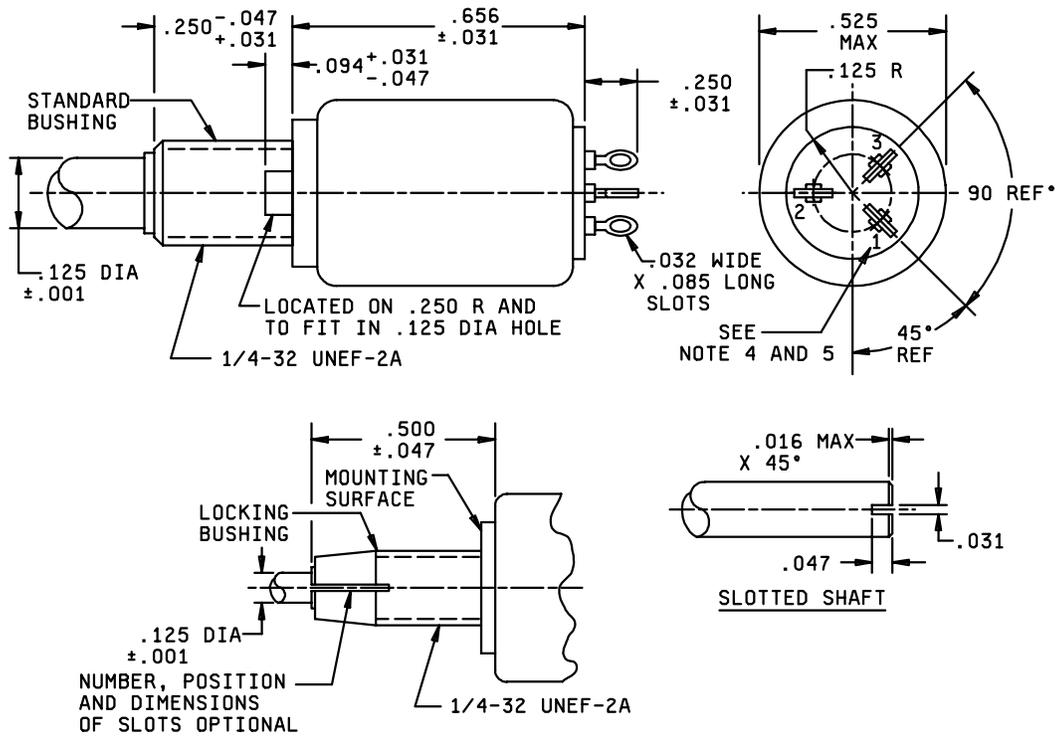
1/ The complete type designation and part number include symbols indicating electrical off position from table II, style of shaft and type of mounting from table III and length of operating shaft from table IV. (see example of part number.)

2/ Not to be exceeded on any portion of the winding.

3/ Values based on the use of wire size smaller than 0.0025 inch but not less than 0.0014 inch.

3.4 Electrical off position. The existence and location of an electrical off position at one end of the resistance element is indicated by a single digit, in accordance with table II.

MIL-PRF-22/15B



Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
.001	0.03	.031	0.79	.085	2.16	.250	6.35	.656	16.66
.005	0.13	.032	0.81	.094	2.39	.500	12.70		
.016	0.41	.047	1.19	.125	3.18	.525	13.34		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information.

FIGURE 1. Style RP05

TABLE II. Electrical off position.

Symbol	Electrical off position
1	No electrical off position.

3.5 Shaft and type of mounting. The shaft, type of mounting, and length of shaft is identified by a two letter symbol. The first letter indicates the style of shaft and type of mounting and the second letter indicates the length of the shaft, in accordance with tables III and IV, respectively.

TABLE III. Style of shaft and type of mounting.

Symbol	Style of shaft	.125 inch diameter shaft	
		Standard bushing	Locking
S	Slotted	X	
U	Slotted		X

TABLE IV. Length of operating shaft.

Standard length of shaft measured from mounting surface of resistor		
Symbol	Slotted	
	0.125 inch diameter shaft in inches ( $\pm 0.0468$ )	
	Standard bushing	Locking bushing
B	0.625	0.625
D		0.875

3.6 Resistance tolerance. The resistance tolerance available is  $\pm 10$  percent.

3.7 Power rating. The power rating shall be 5.0 watts at 25°C. The resistor shall be mounted on a steel panel, 4 inches square, with a thickness of 0.040 inches. The hotspot for the panel shall not exceed 340°C.

3.8 Torque.

3.8.1 Operating torque. The operating torque shall not be less than 0.25 ounce-inch (oz-in) minimum and 3.0 oz-in maximum.

3.8.2 Stop torque. The stop torque shall be 5.0 pound-inch (lb-in) maximum.

3.8.3 Locking torque (as applicable). For resistors equipped with a locking bushing, the locking torque shall withstand 20 oz-in without movement.

3.9 Mechanical rotation. The mechanical rotation shall be  $335^{\circ} \pm 5^{\circ}$ .

3.10 Hardware. The mounting nut shall be corrosion-resistant with a 0.0625-inch thickness and shall measure 0.3125-inch across the hexagonal flats. Thread size shall be 0.250-32NEF-2B. A corrosion-resistant internal-tooth lockwasher of suitable size shall be supplied. The locking nut for the locking bushing type resistor shall be corrosion-resistant with a 0.156-inch thickness and shall measure 0.3125-inch across the hexagonal flats. Thread size shall be 0.250-32NEF-2B.

#### 4. VERIFICATION

4.1 Sampling and inspection. Sampling and inspection shall be in accordance with MIL-PRF-22.

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 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 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 Intended use. The intended use specified in MIL-PRF-22 is applicable to this specification.

6.2 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of this specification, and the complete PIN (see 1.2).
- b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of the individual documents referenced (see 2.1).
- c. Packaging instructions (see 5.1).

6.3 PIN. This specification requires a PIN that describes technology and appropriate references to associated documents (see 1.2 and 3.1).

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 - 11

Preparing activity:  
DLA - CC

Review activities  
Army - AR, AT, AV, CR4  
Navy - AS, CG, MC, OS  
Air Force - 19

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