INCH-POUND
MIL-PRF-27208/8G
13 June 2001
SUPERSEDING
MIL-PRF-27208/8F
22 October 1970

PERFORMANCE SPECIFICATION

RESISTORS, VARIABLE, WIRE WOUND, (ADJUSTMENT TYPE, LEAD SCREW ACTUATED), STYLE RT12

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 RT12 adjustment type, lead screw actuated, wire wound, variable resistors.

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 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-27208 - Resistor, Variable, Wire Wound, Nonprecision, General Specification for.

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Document Automation and Production Service, Building 4H (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.

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.

AMSC N/A FSC 5905
DISTRBUTION STATEMENT A. Approved for public release; distribution is unlimited.

3. REQUIREMENTS

3.1 General. The requirements for acquiring the product described herein shall consist of this document and MIL-R-27208.

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

3.3 Power rating. The power rating shall be 0.750 watt, based on full load operation at an ambient temperature of 85°C.

3.4 Nominal resistance value, maximum resolution, and maximum rated ac or dc working voltage. Nominal resistance values, maximum resolutions, and maximum rated ac or dc working voltages are specified in table I.

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

Nominal resistance value	Maximum resolution 1/	Maximum rated ac or dc working voltage
Ohms	Percent	Volts
10	2.2	2.7
20	2.0	3.8
50	1.3	6.1
100	1.1	8.7
200	0.9	12.3
500	0.6	19.4
1,000	0.5	27.4
2,000	0.4	38.7
5,000	0.3	61.3
10,000 2/	0.3	86.7
20,000 3/	0.3	122.0

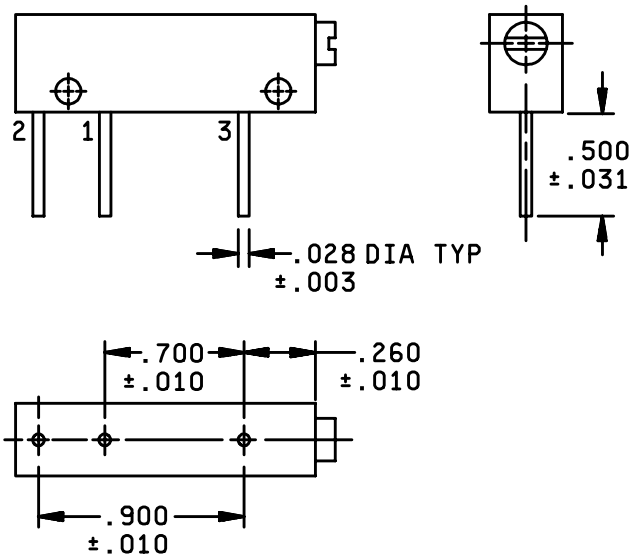
1/ Maximum resolution shown are theoretical.
2/ Value based on the use of wire having no less that a 0.001 inch nominal diameter.
3/ Value based on the use of wire having no less that a 0.0008 inch nominal diameter.

3.5 Actual effective electrical travel. The actual effective electrical travel shall be 17 turns minimum and 27 turns maximum.

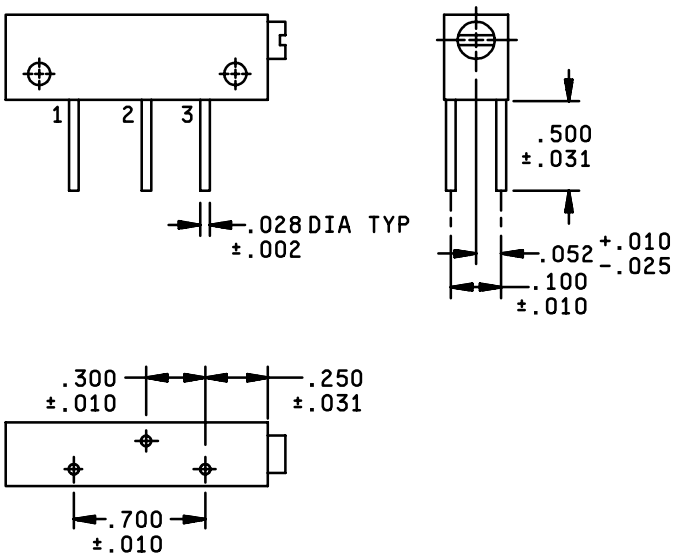
3.6 Operating torque. The torque required to effect rotation shall be 8 inch-ounce maximum.

4. VERIFICATION

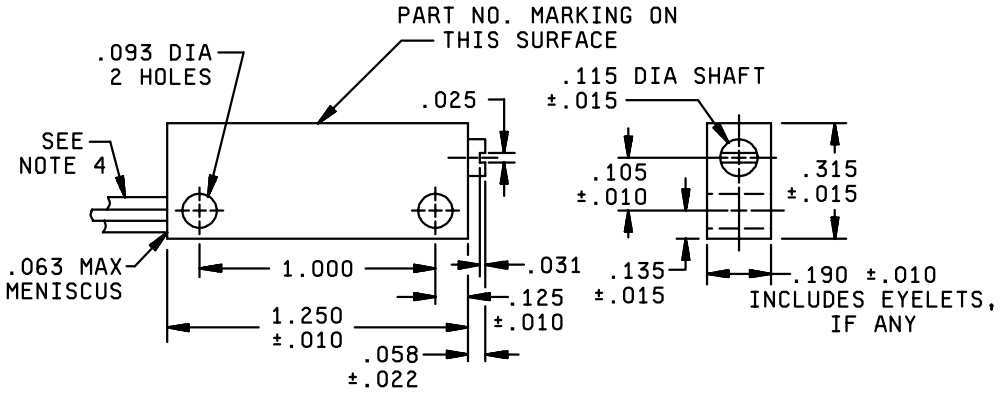
4.1 Sampling and inspection. Sampling and inspection shall be in accordance with MIL-PFR-27208.



PRINTED-CIRCUIT
PIN TERMINAL TYPE-P



PRINTED-CIRCUIT
PIN TERMINAL TYPE-Y



FLEXIBLE LEAD TERMINAL TYPE - L

Inches	mm	Inches	Mm	Inches	mm	Inches	mm	Inches	mm
0.003	0.08	0.031	0.79	0.100	2.54	0.190	4.83	0.500	12.70
0.010	0.25	0.052	1.32	0.105	2.67	0.250	6.35	0.700	17.78
0.015	0.38	0.058	1.47	0.115	2.92	0.260	6.60	0.900	22.86
0.025	0.64	0.063	1.60	0.125	3.18	0.300	7.62	1.000	25.40
0.028	0.71	0.093	2.36	0.135	3.43	0.315	8.00	1.250	31.75

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information.
3. Unless otherwise specified, tolerance is ±0.005 (0.13mm).
4. The three leads shall be of stranded wire, AWG size 28 to 30, having a minimum length of 6 inches (152.4 mm); they shall be insulated with polytetrafluoroethylene, stripped 0.250 inch ±0.062 inch (6.35mm ±1.57mm) from the end, and color coded.
5. The picturization of the styles above are given as a 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.

FIGURE 1. Style RT12 - Continued.

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 Departments 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-27208 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 requirements (see 5.1).

6.3 Supersession data. This specification supersedes MIL-PRF-27208/8F, 22 October 1970 and MIL-R-27208/3E, 19 December 1969. Style RT12, terminal types L and Y of this specification, are substitutes for style RT11 resistors having the same resistance values as terminal types L and P, respectively, of MIL-R-272008/3E.

6.4 Weight. The maximum weight is 4.5 grams.

6.5 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
DLA - CC

Preparing activity:
DLA - CC

Review activities
Army - AT, AV, MI
Navy - MC, OS
Air Force - 19

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