

INCH-POUND

MIL-PRF-10304/21G  
w/AMENDMENT 2  
28 August 2013  
SUPERSEDING  
MIL-PRF-10304/21G  
w/AMENDMENT 1  
18 January 2008

PERFORMANCE SPECIFICATION SHEET

METERS, ELECTRICAL INDICATING, PANEL TYPE, RUGGEDIZED:  
VOLTMETER, DC (SQUARE FLANGE, 1.5 INCH), STYLE 13

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

The requirements for acquiring the products described herein shall consist of this specification sheet and  
MIL-PRF-10304.

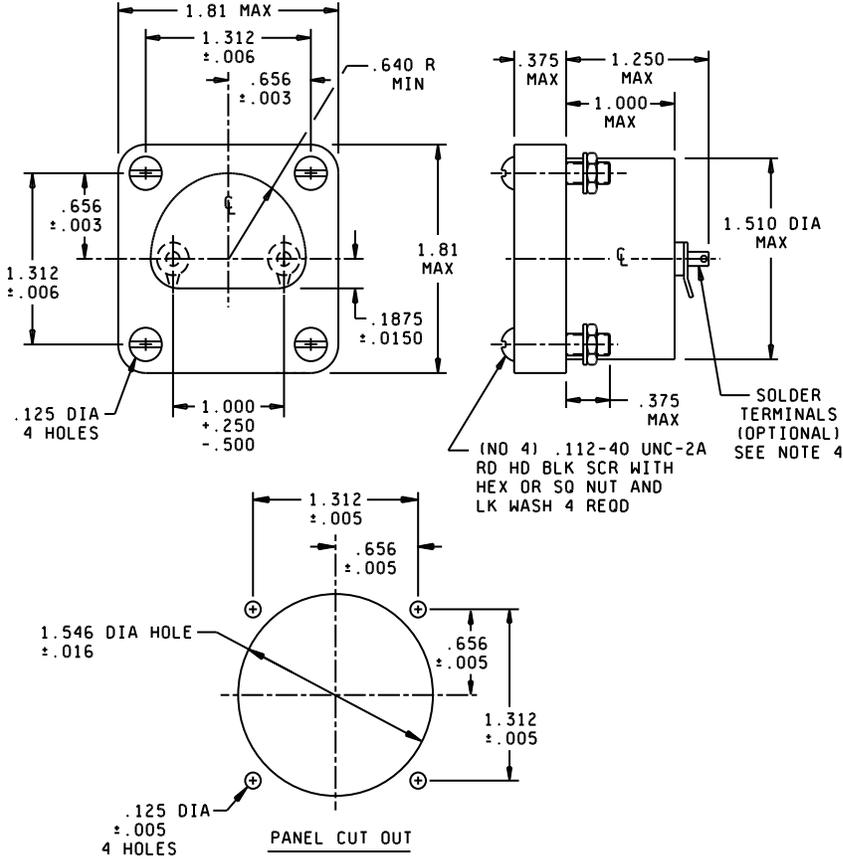


FIGURE 1. Meter, panel type.

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Inches	mm	Inches	mm	Inches	mm	Inches	mm
.003	.08	.016	.41	.500	12.70	1.312	33.32
.005	.13	.125	3.18	.640	16.26	1.510	38.35
.006	.15	.1875	4.76	.656	16.70	1.546	39.28
.0150	.38	.250	6.35	1.000	25.40	1.81	45.97
		.375	9.53	1.250	31.75		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Tolerances are  $\pm .005$  inch (.13 mm).
4. The center line of the terminals may be located .188 (4.78 mm) above or below the center line of the meter.
5. Letters and numerals for scale numerals and captions shall be .085 (2.16 mm) max and all others shall be .050 (1.27 mm) max.
6. Other forms of terminals, as specified in MIL-PRF-10304, are permitted. The specified minimum length applies to stud-type terminals only. Terminals shall be equally spaced, from each side of vertical centerline.

FIGURE 1. Meter, panel type - Continued.

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Weight: 4 ounces maximum.

Full-scale ranges: See table I.

Scale:

Length: 1 inch minimum.

Pointer deflection: 90 degrees nominal.

Position influence:  $\pm 3$  percent maximum change for 60 degrees rotation from normal operating position.

Accuracy:  $\pm 3$  percent.

Overshoot: 50 percent maximum.

Response time: 2 seconds maximum.

Power consumption (loss) (at end scale deflection): 1 mA  $\pm 5$  percent.

High temperature cycling:

$\pm 5$  percent.

$\pm 3$  percent permanent change.

Temperature influence:  $\pm 0.75$  percent change.

Exposure to extreme temperatures:

$\pm 3$  percent permanent change.

Overload capacity:

Sustained overload:

$\pm 1$  percent temporary zero shift.

$\pm 1$  percent permanent zero shift.

$\pm 2$  percent permanent change.

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Dielectric withstanding voltage: 1,500 volts rms.

TABLE I. Full-scale ranges.

Millivolts	Volts	
	Zero left	Zero center
30	2	30-0-30
50	10	50-0-50
100	20	100-0-100
200	30	
300	50	
500	100	
	200	
	300	

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. 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.

Referenced documents: This document references MIL-PRF-10304.

CONCLUDING MATERIAL

Custodians:  
Army - CR  
Navy - SH  
Air Force - 99  
DLA - CC

Preparing activity:  
DLA - CC  
(Project 6625-2013-013)

Review activities:  
Army - AR, AT, AV, CR4, MI  
Navy - MC

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.