

INCH-POUND

MIL-PRF-10304/23D
w/AMENDMENT 2
28 August 2013
SUPERSEDING
MIL-PRF-10304/23D
w/AMENDMENT 1
18 January 2008

PERFORMANCE SPECIFICATION SHEET

METERS, ELECTRICAL INDICATING, PANEL TYPE, RUGGEDIZED:
VOLTMETER AND AMMETER, DC LONG SCALE
(FLUSH MOUNTING, ROUND FLANGE, 4.5 INCH), STYLE 44

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.

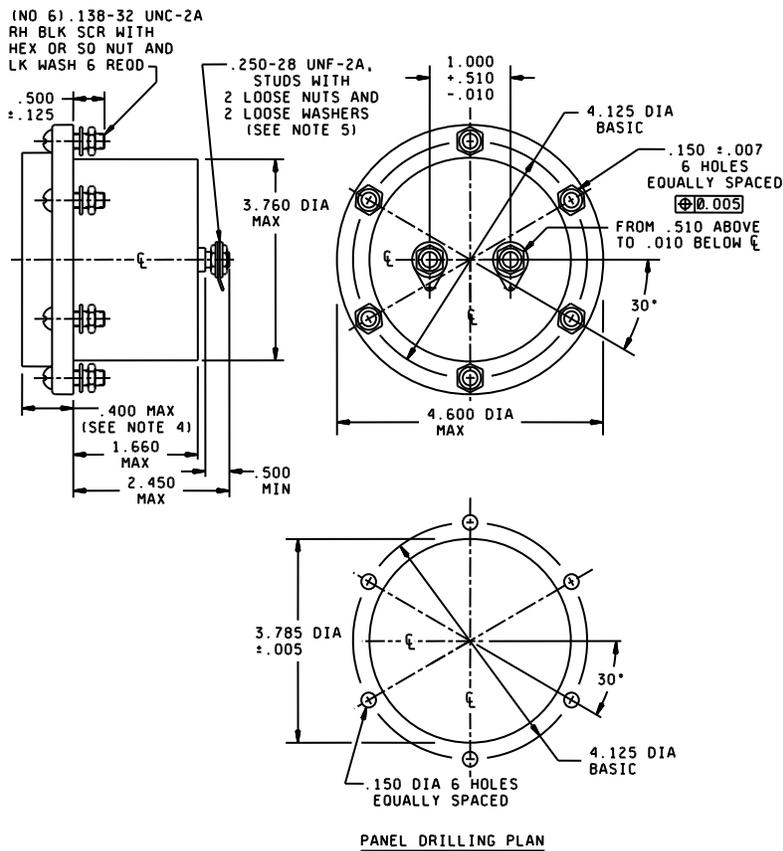


FIGURE 1. Meter, panel type.

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Inches	mm	Inches	mm	Inches	mm
.005	.13	.250	6.35	2.450	62.23
.007	.18	.400	10.16	3.760	95.50
.010	.25	.500	12.70	3.785	96.14
.125	3.18	.510	12.95	4.125	104.78
.138	3.51	1.000	25.40	4.600	116.84
.150	3.81	1.660	42.16		

NOTES:

1. Dimensions are in inches. Unless otherwise specified, tolerances are $\pm .015$ inch for two place (.XX), and $\pm .005$ inch for three place (.XXX) dimensions.
2. Tolerance is ± 0.5 ($\frac{1}{2}$) degree on angles.
3. Metric equivalents are given for general information only.
4. Maximum projection from front panel including mounting gaskets (if used).
5. 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:

(Readings expressed as a percent of full-scale value.)

Dimensions and configuration: See figure 1.

Full-scale ranges: See table I.

Scale:

Length: 6 inches minimum.

Pointer deflection: 250 degrees nominal.

Position influence: ± 1 percent change for 60 degrees rotation from normal operating position.

Accuracy: ± 1 percent.

Overshoot: 50 percent maximum.

Response time: 3 seconds maximum.

Power consumption (loss) (at end scale deflection):

Milliammeters 0-1 mA - 700 mV maximum.

Milliammeters above 1 mA - 150 mV maximum.

Voltmeter - 1 mA nominal.

High temperature cycling:

± 4.0 percent.

± 0.5 percent change.

Temperature influence: ± 1 percent change.

Exposure to extreme temperatures: ± 3 percent permanent change.

Overload capacity:

Momentary overload: ± 2 percent permanent change.

Sustained overload:

± 1 percent temporary zero shift.

± 1 percent permanent zero shift.

± 2 percent permanent change.

Dielectric withstanding voltage: 3, 000 volts rms.

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TABLE I. Full-scale ranges.

Voltmeters		Ammeters			
Volts		Microamperes		Milliamperes	
Zero left	Zero center	Zero left	Zero center	Zero left	Zero center
1	1-0-1	100	50-0-50	1	1-0-1
2	10-0-10	200	100-0-100	5	5-0-5
10	30-0-30	300	200-0-200	10	10-0-10
20	50-0-50	500	300-0-300	20	
30	100-0-100		500-0-500	30	
50					
100					
200					
300					
500					

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 6625-2013-014)

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>.