

INCH-POUND

MIL-PRF-10304/14D  
w/AMENDMENT 2  
28 August 2013  
SUPERSEDING  
MIL-PRF-10304/14D  
w/AMENDMENT 1  
18 January 2008

PERFORMANCE SPECIFICATION SHEET

METERS, ELECTRICAL INDICATING, PANEL TYPE, RUGGEDIZED:  
AMMETER, AC (FLUSH MOUNTING, ROUND FLANGE, 3.5 INCH), STYLE 36

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

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

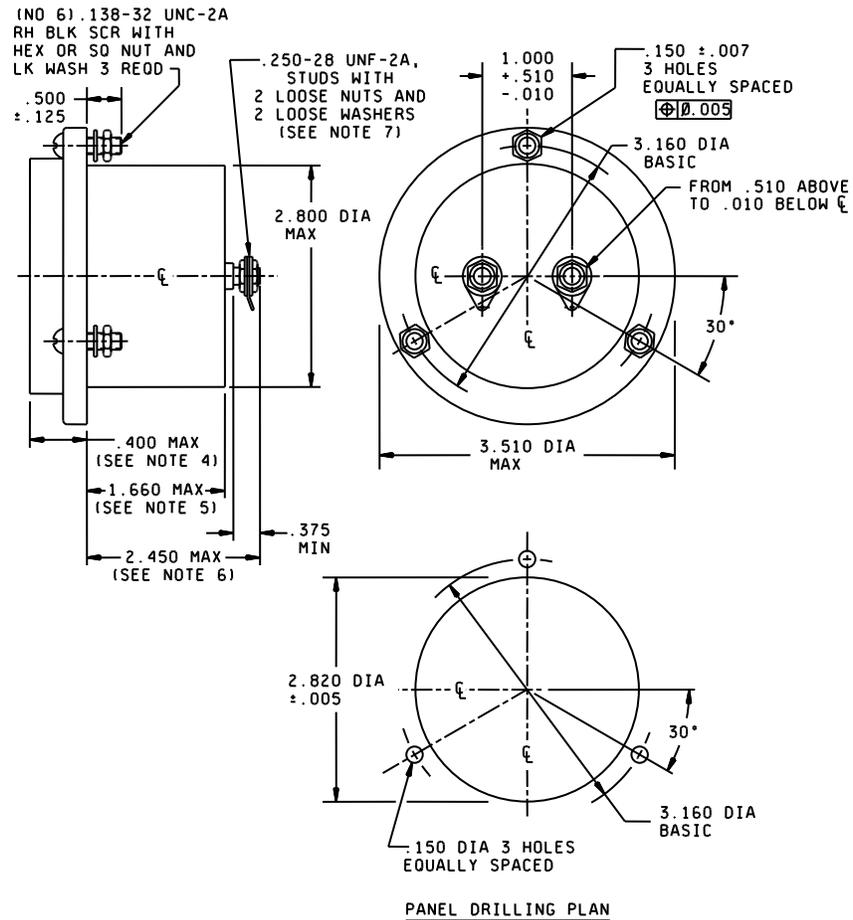


FIGURE 1. Meter, panel type.

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Inches	mm	Inches	mm	Inches	mm
.005	.13	.250	6.35	1.660	42.16
.007	.18	.375	9.53	2.450	62.23
.010	.25	.400	10.16	2.800	71.12
.125	3.18	.500	12.70	2.820	71.63
.138	3.51	.510	12.95	3.160	80.26
.150	3.81	1.000	25.40	3.510	89.15

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  $\pm 0.5$  ( $\frac{1}{2}$ ) degree on angles.
3. Metric equivalents are given for general information only.
4. Maximum projection from front panel including mounting gaskets (if used).
5. For self-contained meters of 30 amperes (amp) and above, this dimension is 2.0 inches (50.80 mm) maximum.
6. For self-contained meters of 30 amperes (amp) and above, this dimension is 2.625 inches (66.68 mm) maximum.
7. 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: 2 inches minimum.

Pointer deflection: 90 degrees minimum.

Position influence:  $\pm 2$  percent change of 60 degrees rotation from normal operating position.

Accuracy:  $\pm 2$  percent.

Overshoot: 67 percent maximum.

Response time: 2.5 seconds maximum.

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

Self-contained 60-Hz ammeters at 60 Hz: 1 VA maximum.

Self-contained 400-Hz ammeters at 400 Hz: 2 VA maximum.

Self-contained 800-Hz ammeters at 800 Hz: 3.5 VA maximum.

Frequency range: ( $\pm 2$  percent change):

<u>Nominal frequency</u>	<u>Extreme range</u>
60-Hz voltmeters (AC)	25-125 Hz
400-Hz voltmeters (AF)	360-440 Hz
800-Hz voltmeters (AE)	720-880 Hz

High temperature cycling:

$\pm 2$  percent.

$\pm 2$  percent permanent change.

Temperature influence:  $\pm 0.5$  percent change.

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Exposure to extreme temperatures:  $\pm 3$  percent permanent change.

Overload capacity:

Momentary overload:  $\pm 2$  percent permanent change.

Sustained overload:

$\pm 1$  percent temporary zero shift.

$\pm 1$  percent permanent zero shift.

$\pm 2$  percent permanent change.

Dielectric withstanding voltage: 3,000 volts rms.

TABLE I. Full-scale ranges.

Milliamperes (AC, AE, AF)		Amperes (AC, AE, AF)		
10	100	1	10	300
20	200	2	20	<sup>1/</sup> 500
30	300	5	30	<sup>1/</sup> 800
50	500		50	<sup>1/</sup> 1,000

<sup>1/</sup> Used with external transformer. Current through meter at full-scale deflection shall be 5 amperes.

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 6625-2013-011)

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>.