INCH-POUND MIL-DTL-3971/2E 18 March 2008 SUPERSEDING MIL-DTL-3971/2D 24 January 2001

### DETAIL SPECIFICATION SHEET

METERS, TIME TOTALIZING, NON-HERMETICALLY SEALED, ELECTRICAL: TYPE II, 120V, 60 Hz AND 120V, 400 Hz GRADES A AND B, 2 HOLE AND 3 HOLE FLANGE

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

The complete requirements for procuring meters described herein shall consist of this document and the issue in effect of MIL-DTL-3971.

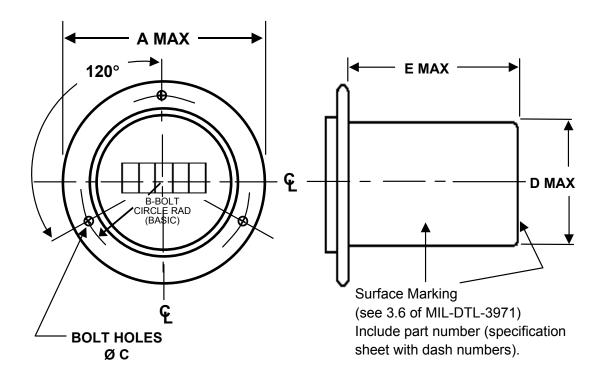
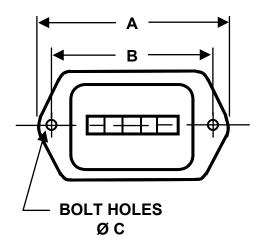
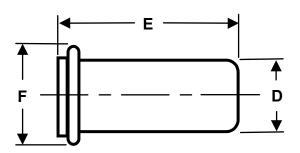


FIGURE 1. Meter with 3 hole flange.

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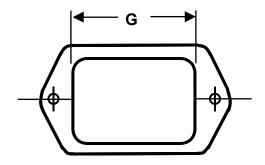


FIGURE 2. Meter with 2 hole flange.

TABLE I. Specification data for type II meters.

DASH NO.	FIG	A	В	С	D	Е	F	G	Grade	Hz	Range	Readout
1	1	2.695	1.220	.125	2.210	3.00			A	60	100,000	99999.9
2	1	3.500	1.580	.150	2.625	3.00			A	60	100,000	99999.9
3	1	2.875	1.265	.150	2.210	3.00			A	400	10,000	9999.9
4	1	3.500	1.580	.150	2.625	3.00			A	400	10,000	9999.9
5	1	2.695	1.220	.125	2.210	3.00			В	60	100,000	99999.9
6	1	3.500	1.580	.150	2.625	3.00			В	60	100,000	99999.9
7	1	2.875	1.265	.150	2.210	3.00	_		В	400	10,000	9999.9
8	1	3.500	1.580	.150	2.625	3.00	_		В	400	10,000	9999.9
9	2	2.120	1.750	.045	.936	1.950	1.020	1.450	A	60	100,000	99999.9
10	2	2.120	1.750	.045	.936	1.950	1.020	1.450	В	60	100,000	99999.9

#### Notes:

- 1. Dimensions are in inches (in.).
- 2. Tolerances: Dimensional  $\pm$  0.015 in., bolt holes  $\pm$  .005 in. unless otherwise indicated. Angular  $\pm$  0.5°.
- 3. Range and readout are in hours and tenths of hours.

## 1. REQUIREMENTS

- 1.1 Dimensions of case. See figures 1 and 2 and table I as applicable.
- 1.2 Colors, elapsed time indicator:

Hours: White on black background

Tenths: Black on white background

1.3 <u>Dielectric strength</u>. Voltage – Dash numbers 1,2,5,6,9 & 10 – 1000 volts rms

− Dash numbers 3,4, 7 & 8 − 500 volts rms

Frequency – 60 Hz

Potential – ac

Points of application - Terminals and case

- 1.4 Weight. 1.00 lb. maximum.
- 1.5 Starting. Energize at the rated voltage and frequency for 60 seconds at  $+22^{\circ}\text{C} + 2^{\circ}\text{C}$  (71.6°F ± 3.6°F), de-energize for 180 seconds, repeat 5 times. The meter shall start within 10 seconds of being energized.

- 1.6 Stopping. The meter shall stop within 120 seconds after being de-energized.
- 1.7 <u>Power supply tolerance</u>. 60 Hz meters one-half hour at 115 volts, 50 Hz

4 hours at 120 volts, 60 Hz

one-half hour at 128 volts, 70 Hz

400 Hz meters – one-half hour at 115 volts, 300 Hz

4 hours at 120 volts, 400 Hz

one-half hour at 128 volts, 500 Hz

1.8 Part or identifying number (PIN). The part number consists of the basic number of this specification sheet and a dash number taken from table I.

## Example:

	<u>M3971/2-1-S</u>
Basic number —	
Specification sheet number —	
Dash number from Table I —	
B (blade) or S (stud) terminal -	
configuration	

Note: Specify terminal configuration; wire lead (blade) or terminal block (stud).

- 2.0 <u>Changes from previous revision</u>. The following changes were made to this document:
  - a. "CPS" changed to "Hz" at 2 places in title.
  - b. power consumption requirement was removed, had been "Not applicable".
  - c. Para. 1.5 statement on "rated voltage and frequency" and the start time requirement added.
  - d. Para. 1.7 tolerance data revised.
  - e. Para. 1.8 paragraph title changed from "Part number". Added blade/stud designation to PIN.

Custodians:

Army - AR

Navy – SH

Air Force – 99

Preparing activity: DLA-GS1

(Project 6645-2008-003)

Reviewers:

Army - AT, CR

Navy – AS, SA, MC, EC

Air Force – 11

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 data base at <a href="http://assist.daps.dla.mil">http://assist.daps.dla.mil</a>.