INCH-POUND
MIL-DTL-3971/1F
18 March 2008
SUPERSEDING
MIL-DTL-3971/1E
24 January 2001

DETAIL SPECIFICATION SHEET

METERS, TIME TOTALIZING, NON-HERMETICALLY SEALED, ELECTRICAL: TYPE 1, 10-40V OR 40-130V OR 10-130V: 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 requirement for procuring meters described herein shall consist of this document and the issue in effect of MIL-DTL-3971.

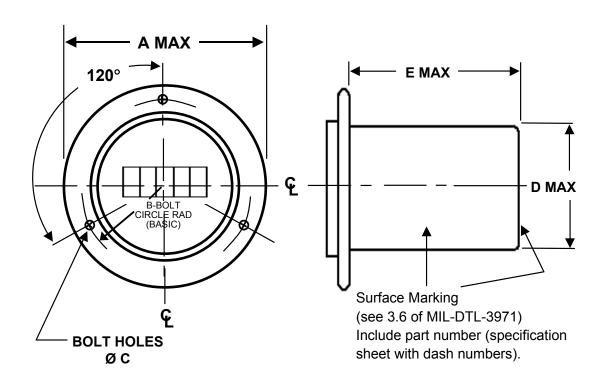
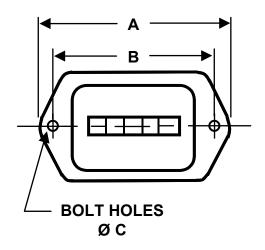
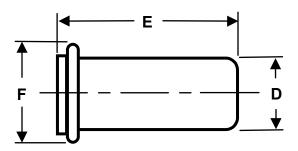


FIGURE 1. Meter with 3 hole flange.

AMSC N/A FSC 6645





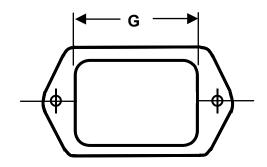


FIGURE 2. Meter with 2 hole flange.

TABLE I. Specification data for type I meters.

DASH NO.	FIG.	A	В	С	D	Е	F	G	Grade	Voltage	Range	Readout
1	1	2.875	1.265	.150	2.210	3.00			A	10-40	10,000	9999.9
2	1	2.875	1.265	.150	2.210	3.00			A	40-130	10,000	9999.9
3	1	3.500	1.580	.150	2.625	3.00			A	10-40	10,000	9999.9
4	1	3.500	1.580	.150	2.625	3.00			A	40-130	10,000	9999.9
5	1	2.875	1.265	.150	2.210	3.00			В	10-40	10,000	9999.9
6	1	2.875	1.265	.150	2.210	3.00			В	40-130	10,000	9999.9
7	1	3.500	1.580	.150	2.625	3.00	_		В	10-40	10,000	9999.9
8	1	3.500	1.580	.150	2.625	3.00			В	40-130	10,000	9999.9
9	1	2.810	1.580	.150	2.135	1.75			В	10-130	10,000	9999.9
10	1	3.500	1.580	.150	2.135	1.75	_		В	10-130	10,000	9999.9
11	2	2.120	1.750	.150	.900	1.950	.125	1.414	A	10-40	10,000	9999.9
12	2	2.120	1.750	.150	.900	1.950	.125	1.414	В	10-40	10,000	9999.9

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 <u>Dimensions of case</u>. 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 – 200 volts rms

Frequency – 60 Hz

Potential – ac

Points of application – Terminals and case

1.4 Weight. 0.60 lbs. maximum

1.5 <u>Starting</u>. 10-40V: 1. Energize with 28V for 60 seconds at $+22^{\circ}$ C $\pm 2^{\circ}$ C (71.6° $\pm 3.6^{\circ}$ F), de-energize for 180 seconds, repeat 3 times.

2. As above at 12V, repeat 2 times.

40-130V: 1. As above at 120V, repeat 3 times.

2. As above at 85V, repeat 2 times.

10-130V: 1. As above at 120V, repeat 3 times.

2. As above at 85V, repeat 2 times.

3. As above at 28V, repeat 3 times

4. As above at 12V, repeat 2 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 Power supply tolerance. 10-40 volt-meters One-half hour at 10 volts

4 hours at 28 volts

One-half hour at 40 volts

40-130 volt-meters One-half hour at 40 volts

4 hours at 120 volts

One-half hour at 130 volts

10-130 volt-meters One-half hour at 10 volts

2 hours at 28 volts

2 hours at 120 volts

One-half hour at 130 volts

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

Example:

	<u>M39/1/1-1-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. power consumption requirement was removed, had been "Not applicable".
 - b. Para. 1.5 start time requirement added.
 - c. Para. 1.7 tolerance data revised.
 - d. Para. 1.8 paragraph title changed from "Part number".

Custodians:

Army - AR

Navy – SH

Air Force – 99

Preparing activity:

DLA-GS1

(Project 6645-2008-002)

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 http://assist.daps.dla.mil.