

INCH-POUNDS

MS90373B
20 April 2009
SUPERSEDING
MS90373A(AS)
7 October 1987

DETAIL SPECIFICATION

INDICATOR, ELAPSED TIME, ELECTROCHEMICAL (COPPER)
115V 50/2400 Hz AC OR 28V DC

Inactive for new design after 23 July 1997.

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 Military Specification Sheet and MIL-DTL-81219.

1 PART OR IDENTIFYING NUMBER (PIN)

1.1 PIN. The PIN is formed as follows:

MS90373 - X

Part description number per table I

Specification number

1.2 Assemblies. Indicator assemblies are made of the following components:

MS90373-1 - -3 indicating cell, -4 holder and -5 regulator
MS90373-2 - -3 indicating cell, -4 holder and -6 regulator

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TABLE I. Part numbers and descriptions

MS Part No.	Description	Hours Range
-1	Indicator Assembly, 115 Vac (-3-4-5)	1000
-2	Indicator Assembly, 28 Vdc (-3-4-6)	1000
-3	Indicating Cell Only	1000
-4	Holder Only	---
-5	115 Vac Regulator Only	1000
-6	28 Vdc Regulator Only	1000

2 REQUIREMENTS

2.1 Dimensional. The indicator shall conform to the dimensions given in figures 1 through 3.

- a. All dimensions are in inches.
- b. Tolerances, unless otherwise specified, are ± 0.015

2.2 Weight. The complete assembly (MS90373-1 or -2) shall not exceed 1 ounce.

2.3 Time range. Total readout shall be 1,000 hours.

2.4 Scale length. The scale length shall be 0.700 ± 0.009 inches.

2.5 Indicating cell installation and retention. Indicating cell installation and retention shall meet the following requirements:

- a. The holder body shall be polarized to accept only the smaller indicating cell end.
- b. The holder cap shall hold the indicating cell captive when the cap is removed from the holder body.
- c. The holder cap shall not obscure the scale of the indicating cell.
- d. The indicating cell shall be removable from the holder cap without tools.

2.5 Operating temperature range. -20°C to 85°C . The indicator may also be used in equipment with an operating range of -55°C to 85°C with accurate operation above -20°C .

2.6 Storage temperature range. -80°C to 85°C .

2.7 Power consumption. Power consumption at the rated voltage per table I shall not exceed 0.1 watts.

2.8 Life accuracy. Accuracy shall be $\pm 5\%$ from -20°C to 85°C over the following conditions:

- MS90373-1: 115Vac $\pm 13\text{Vac}$, 50 HZ to 2400 Hz
- MS90373-2: 23Vdc to 29Vdc

2.9 Color. Regulator and holder shall be black with the word "TIMER" printed in white on the holder cap face.

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3 IDENTIFICATION

3.1 Regulator. The regulator shall be marked with the following data on the outer surface:

- a. Manufacturer's name or symbol (optional)
- b. Manufacturer's model number
- c. Nominal voltage
- d. Nominal power (watts)
- e. PIN (MS90373-5 or MS90373-6)
- f. Polarity symbol (+)
- g. Coded date

3.2 Indicating cell. The indicating cell shall be marked with the following data:

- a. Manufacturer's name
- b. MS number (MS90373-3)

3.3 Holder. The holder shall be marked with the following data on the outer surface:

- a. MS number (MS90373-4)

4 NOTES

4.1 The length of the copper column relative to the graduated time scale of the indicating cell indicates the total elapsed time (i.e. – the indicator is read in a manner similar to a liquid thermometer).

4.2 When the indicator is mounted in other than a horizontal position, the holder cap must be in the up position.

4.3 The regulator (MS90373-5 or -6) may be mounted by means of standard capacitor brackets.

4.4 The holder cap may be attached by threads, 1/4 turn fastener, friction fit or any other suitable means that assures positive retention. The cap may be smaller than the holder body.

4.5 If a gasket is used, it may be of a diameter up to 0.781.

4.6 In the event of conflict between this specification and the references cited herein, This specification shall take precedence.

CHANGES FROM PREVIOUS ISSUE: Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes. Technical changes are revisions to dimensions that were missing, unclear or inaccurate in the previous issue.

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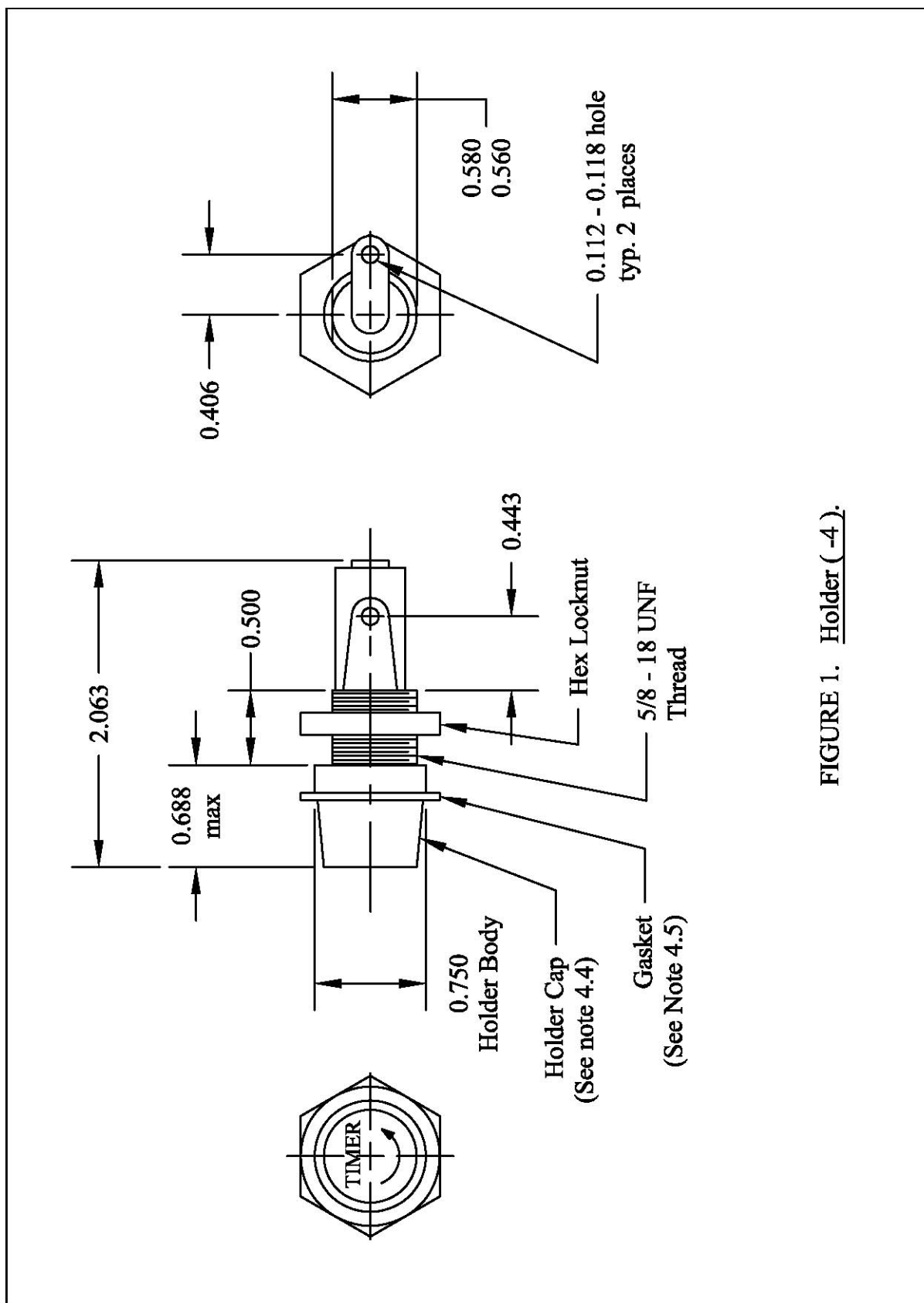


FIGURE 1. Holder (-4).

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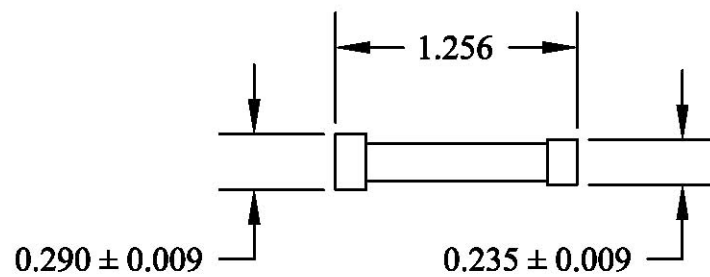


FIGURE 2. Indicating Cell (-3).

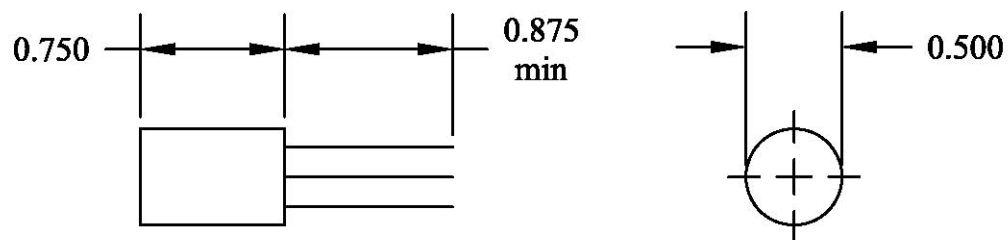


FIGURE 3. Regulator (-5, -6).

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Air Force – 71

Preparing Activity:
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