

# Encoding Altimeters

- 3 inch Counter Drum Pointer Altimeters  
Types 3A67, 3A66
- 3 inch Counter Drum Pointer Altimeters with Baro-output  
Types 3H67, 3H66



## General

SATHOM 3 inch Encoding Altimeters are totally self contained, requiring no electrical power to drive the altitude mechanism. The Altimeters incorporate an optical encoder providing altitude reporting output. The counter-pointer display is actuated by a high performance mechanism with a high stability beryllium capsule. A built-in vibrator minimizes friction and optimizes accuracy in use. Temperature compensation is accomplished by a bimetallic element. All instruments are offered customer-specific (see type designation) and are mounted for easy servicing.

### Application

The 3 inch Encoding Altimeters are installed as primary or standby instruments in civil and military aircraft. Users benefit from a high level of precision and reliability.

## Characteristics

### Counter-Pointer Presentation

The counter has three moving drums, which show tens of thousands, thousands and hundreds of feet. The pointer indicates 1,000 feet per revolution on a scale calibrated at intervals of 20 feet. Warning flags are displayed on the counter between 10,000 and 0 feet, respectively below 0 feet.

### Baro Scale

The barometric-counter indicates the pressure as four digits as single baro in inHg or mbar or as dual baro in inHg/mbar. Adjustment for

QNH/QFE is provided by a knob on the front, built-in stops are included.

### Encoding-Output

An optical electronic system supplies altitude data in digital form, ICAO coded (Gillham) for SSR pressure altitude transmission in 100 feet increments, to standards according to TSO-C88.

### Code ON/OFF-Flag Internal

Encoding Altimeters are provided with a code ON/OFF-flag alarm, which indicates any encoding power malfunction.

### Baro-Output

An electrical indication of pressure (3H67/3H66 models only) can be provided by a potentiometer geared to the baro-scale-mechanism.

### Case

The SATHOM Altimeters are installed in light-weight aluminum ARINC, Square and Round cases.

### Lighting

Lighting is offered in different voltages and different colors. All instruments are available in NVG-compatible lighting.

### Glass

All instruments with lighting are equipped with anti-reflective coated glass in compliance with MIL-C-14806.

## Type Designation

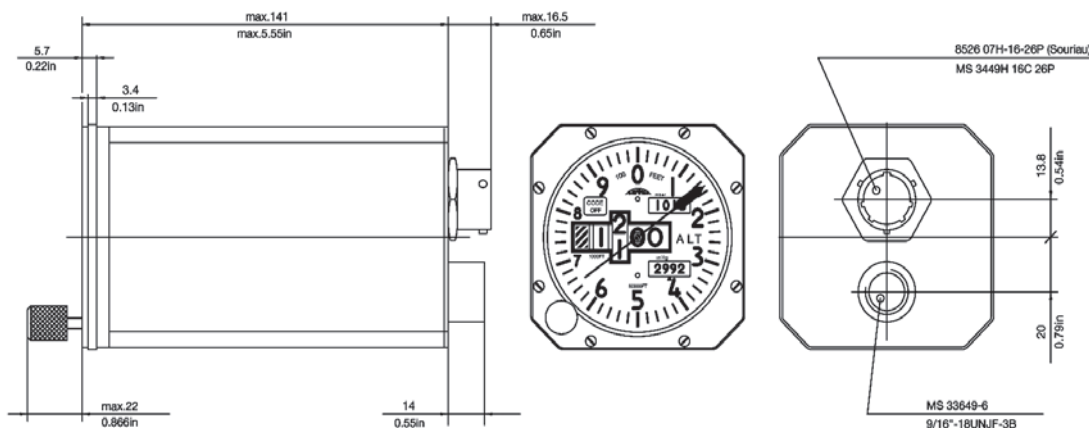
3A	Encoding Altimeter
3H	Encoding Altimeter with Baro-output
66.	Metric Counter Drum Pointer
67.	Feet Counter Drum Pointer
.10.	Round Case Grey, Bezel with Lip
.20.	Round Case Black, Bezel with Lip
.30.	ARINC Case 408 3ATI Black
.40.	ARINC Case 408 3ATI Grey
.50.	Square Case Black
.60.	Square Case Grey
.70.	Round Case Grey, Bezel without Lip
.80.	Round Case Black, Bezel without Lip
.01.	Dial Markings are Fluorescent White
.02.	Dial Markings are Lusterless White
.03.	Dial Markings are Fluorescent Yellow
.04.	Dial Markings are Luminescent Green
.05.	Dial Markings are Day Glow Yellow (Saturne)
.20F.	Measuring Range -1,000 ... 20,000 Feet
.35F.	Measuring Range -1,000 ... 35,000 Feet
.50F.	Measuring Range -1,000 ... 50,000 Feet
.06M.	Measuring Range -300 ... 6,000 Meters
.10M.	Measuring Range -300 ... 10,000 Meters
.15M.	Measuring Range -300 ... 15,000 Meters
.00.0.	Without Lighting
.05.	Lighting 5V AC/DC.28.
.28.	Lighting 28V AC/DC
.1.	Lighting White Only
.2.	Lighting Red and White
.3.	Lighting Red Only
.4.	Lighting NVIS Green
.XX.	Customer Code

## Technical Data

### General

-Encoding Altimeter	Acc. TSO-C10b, TSO-C88 and DO-160
-Encoding Output	Acc. ICAO Code, 100 Feet Increments Acc. TSO-C88
-Encoding Power Supply	28V DC
-Vibrator Power Supply	28V DC
-Altitude Counter Presentation	3 Drum Altitude Counter
-Baro Counter Presentation	Four Digit Counter
-Baro-Setting Range	950 to 1050 mbar (hPa) or 28.1 to 31.0 inHg
-Baro-Setting Output (3H67/3H66 only)	Acc. to Customer Specification
-Case (Bezel)	
ARINC	Acc. ARINC 408 3ATI
Square	Acc. MS 33556
Round, Bezel with Lip	Acc. MS 33549
Round, Bezel without Lip	Acc. MS 27573
-Lighting NVIS Green	Nightvision Goggle Compatibility
	Acc. MIL-STD-3009 (MIL-L-85762)
-Temperature	Acc. TSO-C10b
Operating	-30° to +50°C
Non-Derangement	-65° to +70°C
-Pneumatic Connector	9/16"-18UNJF-3B (MS 33649-6)
-Weight in Standard Configuration	Less than 800 gr
-Colors White and Black	Acc. FED-STD-595a
-Glass, Anti-Reflective Coated	Acc. MIL-C-14806A
<b>Options</b>	
-Encoding Power Supply	28V DC and 115V / 400 Hz
-Altitude Counter Presentation	3 Drum Altitude Counter with Two Fixed Zeroes on Dial
-Dual Baro-Setting Range	950 to 1050 mbar (hPa) and 28.1 to 31.0 inHg
-Expanded Baro-Setting Range	850 to 1050 mbar and/or 25.1 to 31.0 inHg
-Temperature	
Operating	-55° to +70°C
Non-Derangement	-60° to +90°C
-Further Pneumatic Connectors	Acc. MS 33649

## Drawing



Specifications are subject to change without notice.

SATHOM  
Manufacturer of  
mechanical aircraft  
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EASA Part 21 G+O  
EASA Part 145

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