

# Clocks and Chronos

- Quartz Aircraft Chronographs  
Types Q13, Q15
- Quartz Aircraft Chronographs with integral revolving bezel  
Types Q17, Q18



## General

SATHOM currently manufactures the largest selection of Aircraft Clocks and Chronographs. The first quartz-controlled Aircraft Chronograph with an analog display was introduced by THOMMEN. The Clocks have a quartz controlled movement with 8 steps or 1 step per second. This high performance movement guarantees accuracy and reliability.

### Application

The quartz Aircraft Chronographs are installed in civil and military aircraft. Users benefit from a high level of precision and reliability.

## Characteristics

### Operation

There is a standard 3 function (Q13, Q17) pushbutton operation of start/stop/reset-to-zero in a fixed sequence. The other standard version (Q15, Q18) is the dual mode operating knob with a 2-function push sequence start/stop and an independent fly-back-to-zero operation. The fly-back-to-zero is even possible while the counter is running.

### Integral Revolving Bezel

The integral revolving bezel (Q17, Q18 only) is used as a second elapsed time function. Completely integrated in the case, the revolving bezel is set by a knob at the lower right hand corner, offering very smooth adjustment.

### Continuously-Running Second Hand

SATHOM offers an optional continuously running second hand that cannot be stopped, either by operation of the elapsed time function or by normal clock-setting. The Chronograph with continuously-running second can nevertheless be completely stopped for to-the second synchronization with a time signal.

### Elapsed Time

The complete series of SATHOM Aircraft Chronographs are available with elapsed time ranges of 12 minutes, 60 minutes and 12 hours.

### Case

The Clocks and Chronographs are supplied in a Round case or in a semi-ARINC case.

### Lighting

Integral 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 antireflective coated glass in compliance with MIL-C-14806.

### Power Supply

SATHOM recommends connection of the Chronograph to the aircraft supply system, otherwise it runs from a battery.

### Electrical Connector

A 6-pin connector is used for all Clocks and Chronographs. The standard connectors meet all the requirements of MIL-E-5400.

## Type Designation

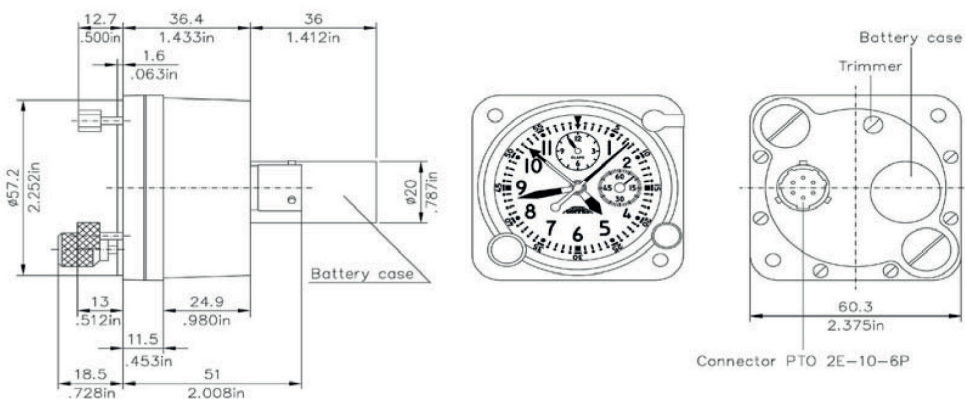
Q13-	Chronograph, 3 Functions (3F)
Q15-	Chronograph, 2 Functions (2F)
Q17-	Chronograph, 3 Functions with Integral Revolving Bezel
Q18-	Chronograph, 2 Functions with Integral Revolving Bezel
	Movement 3F,
941.	With 60 min. Elapsed Time Range
942.	With 12 h Elapsed Time Range
944.	With 12 min. Elapsed Time Range
	Movement 2F,
945.	With 60 min. Elapsed Time Range
946.	With 12 h Elapsed Time Range
948.	With 12 min. Elapsed Time Range
	Movement 3F,
	With Continuous Running Second
951.	With 60 min. Elapsed Time Range
952.	With 12 h Elapsed Time Range
954.	With 12 min. Elapsed Time Range
	Movement 2F,
	With Continuous Running Second
955.	With 60 min. Elapsed Time Range
956.	With 12 h Elapsed Time Range
958.	With 12 min. Elapsed Time Range
.20.	Round Case, Black
.30.	Semi-ARINC Case, Black
.40.	Semi-ARINC Case, Grey
.01.	Dial Mark. are Fluorescent White (Optional)
.02.	Dial Mark. are Lusterless White
.03.	Dial Mark. are Fluorescent Yellow (Optional)
.04.	Dial Mark. are Luminescent Green (Optional)
.05.	Dial Mark. are Day Glow Yellow (Saturne) (Optional)
.07.	Dial Mark. are Longtime Afterglowing Luminescent Green (DIN 67510) (Optional)
.00.0.	Without Lighting
.05.	Lighting 5 V AC/DC
.28.	Lighting 28 V 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

■ Aircraft Chronograph	Acc. MIL-C-38207A (ASG) and MIL-C-6499E
■ Movement 3F	Chronograph with 3 Functions: Start/Stop/Reset to Zero
■ Movement 2F	Chronograph with 2 Functions: Start/Stop and an Independent Fly-Back-to-Zero
■ Number of Jewels	15
■ Current Consumption with Battery	0.55 mA
■ Current Consumption with Aircraft Supply System	4 mA
■ Lighting NVIS Green	Nightvision Goggle Compatibility Acc. MIL-STD-3009 (MIL-L-85762)
■ Temperature	Acc. MIL-C-6499E and MIL-C-38207A
Operating	-35° to +55°C
Non-Derangement	-62° to +71°C
■ Weight in Standard Configuration	Less than 200 gr
■ Colors White and Black	Acc. FED-STD-595a
■ Glass, Anti-Reflective Coated	Acc. MIL-C-14806A

## Drawing



Specifications are subject to change without prior notice.

SATHOM  
Manufacturer of  
mechanical aircraft  
instruments used  
in business, commercial  
and military aviation.

SATHOM is a  
certified company.

EASA Part 21 G+O  
EASA Part 145

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