

ELECTRONIC STANDBY ALTIMETER

AD20

THOMMEN
AIRCRAFT EQUIPMENT



THOMMEN FOR EXCELLENCE IN AVIATION MISSION EQUIPMENT

GENERAL

The THOMMEN AD20 Electronic Standby Altimeter is highly reliable and indicates baro- metric altitude with high accuracy. It is a direct replacement for mechanical standby altimeters.

It measures static pressure with a proven integrated solid state pressure sensor and displays the computed altitude by an analog pointer and a sunlight readable digital Liquid Crystal Display.

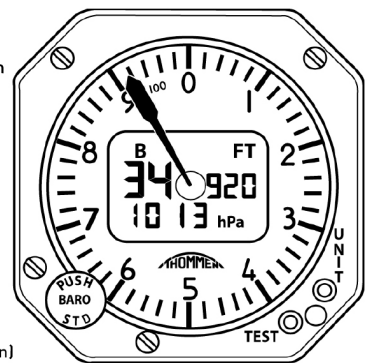
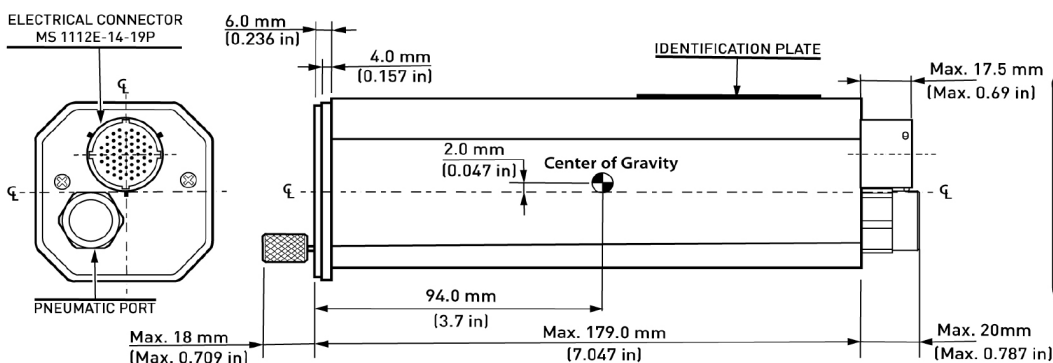
The AD20 Altimeter has a range of -1,000 to 55,000 feet and can be switched to metric scale indication. The barometric scale can be displayed either in inches of mercury (inHg) or in hectopascals (hPa). The baro setting knob has a push-to-reset function.

The AD20 Electronic Standby Altimeter is designed to operate from 28 VDC primary power. In case of power loss, the optional internal emergency battery power source supplies the instrument automatically for up to 8 hours.

LED-Lighting is controlled by an external 5 VDC (28 VDC optional) voltage. The lighting is available in white.

Discrete outputs are available as an option. The RS-232 serial interface provides communication for maintenance and parameterization. An extensive Built-In-Test function guarantees safe operation.

The THOMMEN AD20 Electronic Standby Altimeter is certified to [E]TSO-C10b. It is tested to DO-160D and DO-178B SW level A.



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CHARACTERISTICS

FEATURES:

- Solid State Pressure Sensor
- English/Metric Scale Setting
- Push-to-Test and Continuous Built-in-Test (BIT)
- BIT Failure Memory
- Display with LCD/Stepper Motor Driven Pointer
- Case ARINC 408, 2ATI
- RS232 Maintenance Interface
- Visual/Aural Alert Relays Outputs.
- White LED-Lighting.
- Built in Emergency Li-Ion Battery Module, (up to 8 hours operation).
- Low Battery Indication

PARAMETERS / TECHNICAL DATA

SIGNAL INPUTS:

- Primary Power 28 VDC
- Emergency Power Signal (Battery activation)
- Lighting Power 5V DC (28V DC optional)

TECHNICAL DATA:

- Operating Temperature -30° to +70° (-22° to +158°)
- Storage Temperature -55° to +85° (-67° to +185°F)

SIGNAL OUTPUTS:

- Warning Flag Valid Discrete Output
- Visual/Aural Alert Relays Outputs.
- White LED-Lighting.

- Reliability MTBF >20,000 Hours.
- Weight 490g (1.08 lb).

OPERATING SPECIFICATION

• Baro Correct Altitude	-1,000	to	+55,000 ft (+16,764 m)
• Altitude Rate ROC	-1000	to	+53,000 ft (+16154.4 m)
• Vertical Speed	0	to	30,000 ft/min. (+9144 m/min.)
• Baro Setting QNH	20.67 700.00	to	31.00 inHg (1,050 hPa)
• Accuracy:			
- Sea Level	± 15 ft (± 4.57 m)		
- 20,00 ft (6096 m)	± 30 ft (± 9.144 m)		
- 30,00 ft (9144 m)	± 15 ft (± 4.57 m)		
- 40,000 ft (12,192 m)	± 60 ft (± 18,3 m)		
- 50,000 ft (15240 m)	± 80 ft (± 24.38 m)		

SPECIFICATIONS:

- (E) TSO-C10b
- RTCA/DO-178B SW Level A
- RTCA/DO-160D

