

AIR DATA DISPLAY REPEATER AD30

THOMMEN
AIRCRAFT EQUIPMENT



THOMMEN FOR EXCELLENCE IN AVIATION MISSION EQUIPMENT

GENERAL

THOMMEN AIRCRAFT EQUIPMENT AG is a leading manufacturer of Air Data Systems and Aircraft Instruments used worldwide on a full range Aircraft types from helicopters to corporate turbine aircraft and commercial airliners. A recent innovation introduced the AD30 Air Data Display which displays altitude received from an external Air Data source.

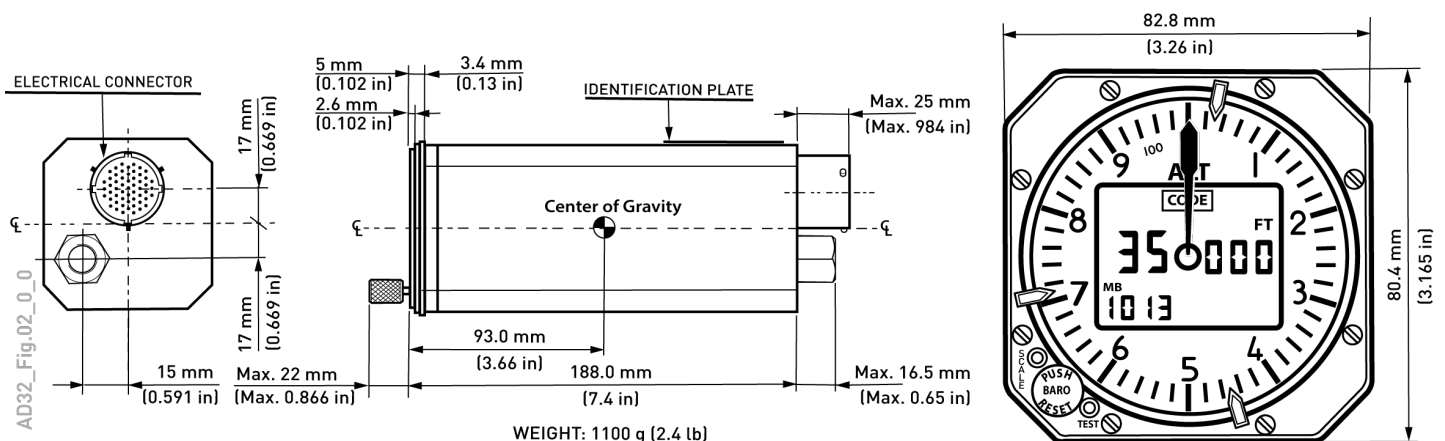
The THOMMEN AD30 Air Data Display exceeds FAA Technical Standard Order (TSO) and accuracy requirements.

The air data parameters are transmitted via the configurable ARINC 429 interface data bus. This has two ARINC 429 transmit and two receive channels with which the baro setting can be also adjusted.

The AD30 has also an integrated altitude alerter. The baro setting knob has a push-to-reset function. The corrected altitude is displayed on a high contrast LCD in digital format and by a stepper motor driven pointer.

It is designed to be modular and is therefore very easy to maintain thanks to the RS232 maintenance interface. Its power supply is designed for 28 VDC. The low power consumption of less than 8 Watts and its low weight of only 2.3 lbs (1050 grams) have been optimized for applications in state-of-the-art avionics. The extensive Built-In-Test guarantees safe operation.

The THOMMEN AD30 Air Data Display can be configured for different applications and displays altitude in feet or meters, all without altering the system architecture.



AIR DATA DISPLAY REPEATER

AD30

CHARACTERISTICS

FEATURES:

- Integrated Altitude Alerter
- English/Metric Scale Setting
- Baro Push-to-Reset Function
- Push-to-Test and Continuous Built-In-Test
- BIT Failure Memory
- Display with LCD/Stepper Motor Driven Pointer
- ARINC 408, 3ATI, with IMI Ring Pointers
- RS232 Maintenance Interface

SIGNAL OUTPUTS:

- Encoded Altitude ICAO Per TSO C-88a
- Visual/Aural Alert Relays Outputs
- Warning Flag Valid GND/28 VDC
- Optional Baro Potentiometer Output
- ARINC 429 Serial Data Bus 2 Transmit Channels

SIGNAL INPUTS:

- Primary Power 28 VDC
- Emergency Power 28 VDC
- Lighting Power 28 VDC (Optional 5 VDC)
- Alert Light Control 28 VDC (Optional 5 VDC)
- ARINC 429 Serial Data Bus 2 Receive Channels

OPERATING SPECIFICATION:

- FAA TSO-C10b/TSO-C88a
- RTCA/DO-178B Level A
- RTCA/DO-160D
- Operating Temperature -20 ... 70°C
- Storage Temperature -55 ... 85°C
- Reliability:
MTBF 21,700 Hours (Acc. MIL-HDBK-217F)

PARAMETERS

Pressure Altitude (1013.25 mbar)	- 1,000	to	+53,000	feet	(+16154.4 m)
Baro Corrected Altitude #1 / #2	- 1,000	to	+53,000	feet	(+16154.4 m)
Vertical Speed	0	to	20,000	ft/min.	(+6096 m/min.)
Baro Setting #1 / #2	20.67	to	31.00	inHg	
Baro Setting #1 / #2	700	to	1,050	mbar	

INTERNAL BLOCK DIAGRAM

