THOMMEN is a leading manufacturer of Air Data Systems and aircraft instruments that are used worldwide on many aircraft types. These include helicopters, corporate turbine aircraft and commercial airliners.

A recent innovation introduced the AC32 Digital Air Data Computer to the Aviation market. The AC32 has integrated vibrating cylinder pressure sensors that give very high degree of accuracy and stability for pitot and static ports.

The AC32 easily complies with the 1000 ft. vertical separation-minimums required for aircraft to operate in RVSM airspace.

In fact, it providing up to 2x16 SSEC curves which makes it quite unique among all Air Data Computers in the market today.

The highly commended THOMMEN AC32 Digital Air Data Computer exceeds the FAA Technical Standard Order (TSO) requirements for accuracy.

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**INTERNAL BLOCK DIAGRAM**

**AC32 Digital Air Data Computer**

- Static Port S
- Pitot Port P
- Pitot Pressure Sensor
- ADC
- ARINC 429 Serial Data Bus, 2 Receive Channels
- TAT Probe
- Maintenance IF
- RS232
- ICAO Encoded OUT
- Encoder
- Power Supply
- CPU

**DATA COMMUNICATION BLOCK DIAGRAM**

- Pilot
  - Display
  - ARINC 429
  - Digital Autopilot
  - Discrete I/O’s
  - AC32
- Co-pilot
  - Display
  - ARINC 429
  - Transponder
  - ICAO Code

**CHARACTERISTICS**

**FEATURES:**
- Vibrating Cylinder Pressure Sensors
- RVSM Compliant
- Static Source Error Correction, 2 x 16
- Continuous Built-In-Test
- BIT Failure Memory
- RS232 Maintenance Interface

**SIGNAL INPUTS:**
- Primary Power 28 VDC (< 7 Watts)
- Emergency Power 28 VDC
- ARINC 429 Serial Data Bus, 2 Receive Channels
- TAT Probe 500 Ω @ 0°C (Optional 50 Ω)

**SIGNAL OUTPUTS:**
- Encoded Altitude ICAO Per TSO C-88a
- Warning Flag Valid 28 VDC
- ARINC 429 Serial Data Bus, 2 Transmit Channels

**OPERATING SPECIFICATIONS:**
- Altitude Scale Error
  - -1,000 to 20,000 feet ±10 feet
  - -20,000 to 29,000 feet ±20 feet
  - -29,000 to 41,000 feet ±30 feet
  - 41,000 to 53,000 feet ±50 feet
- FAA TSO-C106
- FAA TSO-C88a
- RTCA/DO-178B Level A
- RTCA/DO-160D
  - Operating Temperature -55 ... 70 °C
  - Storage Temperature -55 ... 85 °C
- Reliability: MTBF 21,000 hours (est.)
- FAA TSO-C106
- FAA TSO-C88a
- RTCA/DO-178B Level A
- RTCA/DO-160D
  - Operating Temperature -55 ... 70 °C
  - Storage Temperature -55 ... 85 °C
- Reliability: MTBF 21,000 hours (est.)

**MECHANICAL DRAWING**

**THOMMEN AIRCRAFT EQUIPMENT AG** is a certified company:
- EASA Part-21 G + O
- EASA Part-145
- AS / EN 9100

Specifications are subject to change without prior notice.
Technical modifications reserved.