ADAC

400, 500
AIR DATA UNIT

#Avionics

AIR DATA COMPUTATION
HIGH ALTITUDE HIGH AIRSPEED
AIRCRAFT CONFIGURABLE

aselsan

ADAC

400, 500

AIR DATA UNIT

ADAC 400 and 500 (Air Data Unit) is a configurable air data unit designed and developed by ASELSAN. It can be used as primary air data source for various aircraft systems.

ADAC 400 and 500 calculates air data parameters from integrated pressure sensors and an external OAT probe. ADAC 400 and 500 can also interface with an accelerometer for instantaneous vertical speed calculation and with an AOA sensor for AOA calculation.

ADAC 400 and 500 provides calculated air data mainly through ARINC 429 interfaces and also through discrete signal interfaces. ADAC 400 and 500 has encoded altimeter output interface to provide altitude information for transponders.

With its reliable and rugged design, the ADAC 400 and 500 meets harsh environmental requirements of various Rotary and Fixed Wing Aircrafts.

General Specifications
- Comprehensive air data calculation.
- Two variants available:
  - ADAC 400 is customized for high accuracy per E/TSO C106 applications, with lower airspeed rating.
  - ADAC 500 is customized for high airspeed applications, with lower accuracy.
- Encoded altimeter output per E/TSO C88.
- SAT and TAT probes compatibility for OAT measurement.
- Instantaneous vertical speed indication (IVSI) capability.
- AOA measurement capability.
- Barometric setting via digital or analog interfaces.
- SSEC and PSEC capability.
- Highly configurable.
- Back compatibility with various in use Air Data Units.
- Static port: SAE AS5202-05
- Pitot port: SAE AS5202-04

Physical Specifications
- Dimensions   : 180mm(W)x45mm(H)x180mm(D)
- Weight   : 1,1kg

Technical Specifications
- Altitude Range : -2300ft / 60000ft
- Barometric Correction Range : 22inHg / 31inHg
- Altitude Rate (ROC) Range : ±20000ft/min
- Airspeed Range : 0 / 510knots for ADAC 400
- : 0 / 685knots for ADAC 500
- Mach Range : 0,10 / 1,25 for ADAC 400
- : 0,10 / 2,10 for ADAC 500
- SAT Range : ±100°C
- TAT Range : ±100°C
- AOA Range : ±60°
- VMO Range : 0knots / 1000 knots
- Power consumption : 7W, typically
- Power inputs : 28VDC dual
- Software design per RTCA DO-178C Level A
- Hardware design per RTCA DO-254 Level A

Interfaces
- Static and pitot pressure input interfaces
- Outside air temperature (OAT) input interface
- Accelerometer input interface
- Angle of attack (AOA) input interface
- Analog barometric setting input interface
- Resolver input (future use) interfaces
- Encoded altimeter output interface
- ARINC 429 I/O interfaces
- RS422 I/O interfaces
- Discrete I/O interfaces
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Environmental Conditions
- RTCA DO-160G
- MIL-STD-810H
- Contact ASELSAN for RTCA DO-160G and MIL-STD-810H compatibility details.
- Contact ASELSAN for MIL-STD-704 and MIL-STD-461 compatibility.

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