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.

The computed air-data parameters are transmitted via the configurable ARINC 429 interface data bus. This has two ARINC 429 transmit and receive-channels where you can adjust the baro-setting.

The AC32 meets the requirements for multiple platforms. This includes TAWS, ACAS/TCAS, EGPWS or FMS systems. It also supports the Air Data for enhanced safety infrastructure capabilities of Transponders. Additionally, an ICAO encoded altitude-output is also available as an option.

The AC32 uses the aircraft standard 28 VDC to guarantee a low consumption of less than 7 watts. The Thommen AC32 also has an extensive Built-In-Test (BIT) that guarantees safe operation.

The low weight of only 2.2 lb (1000 grams) is another plus point that optimizes it for use in different state-of-the-art avionic systems. You can easily configure the AC32 for different applications. The AC32 has hosting capabilities that can supply data to other nextgeneration equipment. It can do all of this without changing the system architecture.

**PARAMETERS**

<table>
<thead>
<tr>
<th>Label</th>
<th>Minimum</th>
<th>to</th>
<th>Maximum</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Label 203 - Pressure Altitude (1013.25 mb)</td>
<td>-1,000</td>
<td>80,000</td>
<td>feet</td>
<td></td>
</tr>
<tr>
<td>Label 204/220 Baro Corrected Altitude #1/#2</td>
<td>-1,000</td>
<td>80,000</td>
<td>feet</td>
<td></td>
</tr>
<tr>
<td>Label 205 - MACH Number</td>
<td>0/0.200**</td>
<td>4,000*</td>
<td>MACH</td>
<td></td>
</tr>
<tr>
<td>Label 206 - Computed Airspeed (CAS)</td>
<td>0/40</td>
<td>1024*</td>
<td>knots</td>
<td></td>
</tr>
<tr>
<td>Label 207 - Max. Allowable Airspeed (VMO)</td>
<td>150</td>
<td>1024*</td>
<td>knots</td>
<td></td>
</tr>
<tr>
<td>Label 210 - True Airspeed (TAS)</td>
<td>0/100**</td>
<td>2048*</td>
<td>knots</td>
<td></td>
</tr>
<tr>
<td>Label 211 - Total Air Temperature (TAT)</td>
<td>-61°</td>
<td>+512**</td>
<td>celsius</td>
<td></td>
</tr>
<tr>
<td>Label 212 - Vertical Speed (RoC)</td>
<td>-32,768</td>
<td>32,768*</td>
<td>ft/min.</td>
<td></td>
</tr>
<tr>
<td>Label 213 - Static Air Temperature (SAT)</td>
<td>-100°</td>
<td>+100°</td>
<td>celsius</td>
<td></td>
</tr>
<tr>
<td>Label 221 - Indicated Angle of Attack</td>
<td>-60°</td>
<td>+60°</td>
<td>degree</td>
<td></td>
</tr>
<tr>
<td>Label 234/236 - Baro Correction inHg #1/#2</td>
<td>20.67</td>
<td>31.16</td>
<td>inHg</td>
<td></td>
</tr>
<tr>
<td>Label 235/237 - Baro Correction mb #1/#2</td>
<td>700</td>
<td>1066</td>
<td>mbar</td>
<td></td>
</tr>
<tr>
<td>Label 353 - Indicated Airspeed (IAS)</td>
<td>0/40**</td>
<td>2000</td>
<td>knots</td>
<td></td>
</tr>
<tr>
<td>Label 241 - Corrected Angle of Attack</td>
<td>-60°</td>
<td>+60°</td>
<td>degree</td>
<td></td>
</tr>
</tbody>
</table>

*restricted by ARINC 429-IF
** □/○ □ Output
ARINC429 accuracy met

THOMMEN AIRCRAFT EQUIPMENT AG
Hofackerstrasse 48 | 4132 Muttenz | Switzerland
Phone: +41 (0)61 965 22 22 / Fax: +41 (0)61 961 81 71
sales@thommen.aero
www.thommen.aero
DIGITAL AIR DATA COMPUTER

TYPE AC32 WITH SUPERSONIC CAPABILITY (OPTIONAL RVSM AND/OR AOA)

CHARACTERISTICS

FEATURES:
- Vibrating Cylinder Pressure Sensors
  - non RVSM (or RVSM compliant optional)
- 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 Input 500 Ω @ 0°C (Optional 100 Ω @ 0°C)
- AOA Sensor Input (2 KΩ)
  - 1 KΩ, 5 KΩ optional

SIGNAL OUTPUTS:
- ICAO Encoded Altitude 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
  - 53,000 to 80,000 feet ±150 feet
- RTCA/DO-178B Level A
- RTCA/DO-160D
  - Operating Temperature -55 ... 70 °C
  - Storage Temperature -55 ... 85 °C
- Reliability: MTBF 21,000 hours (est.)
- Delivered with Certificate of Conformity

DATA COMMUNICATION BLOCK DIAGRAM

Pilot
- Display
- ARINC 429
- Digital Autopilot
- Discrete I/O’s
- P S TAT AOA

Co-pilot
- Display
- ARINC 429
- Transponder

AC32

MECHANICAL DRAWING

ELECTRICAL CONNECTOR

IDENTIFICATION PLATES

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