

2022 News Release

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THOMMEN AIRCRAFT EQUIPMENT PROUDLY INTRODUCES THE AC32 CONFIGURATOR – A NEW SOFTWARE TOOL TO CONFIGURE THE AC32 AIR DATA COMPUTER

MUTTENZ, SWITZERLAND – September 26th, 2022. THOMMEN AIRCRAFT EQUIPMENT Ltd. is committed to providing customers with the best possible support and proudly announces the availability of a new software tool to configure the AC32 Air Data Computer.

The Air Data Computer is a vital aircraft component and configuration to the aircraft system is essential. The AC32 is a highly customizable Air Data Computer, that can be integrated to many rotary wing and fixed wing applications.

This software offers our customers the opportunity to explore the features of the AC32 and configure it directly for the respective application. It also helps when adapting external sensors (TAT/ OAT / AoA).

Many time-consuming clarifications are simplified with this user-friendly tool, so that problems can be easily identified at an early stage. A major advantage for the customer is that they can quickly create a feasibility study in advance and understand the system connection to the aircraft interactively.

In general, the time for aircraft level certification for the AC32 Air Data Computer as an LRU can be significantly reduced. For retrofit cases such as replacing an obsolete Air Data Computer, this tool is useful to find a suitable part number.

Features of the software include:

- Configuration of aircraft specific parameters (altitude, airspeed, and Mach range)
- Configuration of discrettes for certain functions (e.g., airspeed warnings, warning flags)
- Individual selection of ARINC 429 labels
- Sensor adaptation and calibration for TAT / OAT probes
- Sensor adaptation and calibration of AoA probe
- Specific corrections, such as SSEC, IAS offset slope or IAS/CAS conversion, can be configured
- Internal digital filters for outputs can be configured

The software is available for Windows 11, 10 and 7 and can be downloaded free of cost here:
<https://thommen.aero/products/digital-air-data-computer-ac32/#productconfigurator>.

For more information about the software, please contact Mr. Ambasuthan Siva at:
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ABOUT THOMMEN AIRCRAFT EQUIPMENT LTD.:

THOMMEN AIRCRAFT EQUIPMENT Ltd. has been supplying the global aircraft industry with Swiss quality aircraft instruments and equipment for civil and military applications for over a century.

THOMMEN is a leading manufacturer of displays and display replacement solutions, air data computers and altimeters, digital clocks and chronographs for helicopters, fixed wing aircraft & UAVs.

The entire product line serves both the OEM production of new aircraft as well as the retrofit market for existing fleets.

THOMMEN is an EASA Part-21G (POA), EASA ADOA, ETSO /TSO, EASA Part-145, AS / EN 9100 certified company.

For more corporate information, please visit: www.thommen.aero.

For sales inquiries, please contact our sales department at: sales@thommen.aero.

The screenshot displays the AC32 CONFIGURATOR v1.00 software interface. It includes several windows:

- AC32 CONFIGURATOR v1.00**: Main configuration window with tabs for General, Ranges and Limits, Temperature Probe, Discrete Inputs, Discrete Outputs, Digital Interfaces, ARINC 429 Labels, and AoA Input. The AoA Input tab is active, showing configuration for an AoA sensor (ITEM 8) with fields for Manufacturer (ABC-Company), Model (ABC-123-456), POT total resistance (2,000 Ohm), max. excitation voltage (12.0 Volt), Offset (0.000 in °), and Slope (1.000).
- HelpWindow**: A window titled "VMO based on MMO" providing information on Machnumber Maximum Operating (MMO) and a formula for calculating VMO. The formula is:
$$VMO_{alt} = C_{MO} \sqrt{\left[\frac{P_{SL}}{P_0} \left[\left(1 + 0.2 \cdot MMO^2 \right)^{3.5} - 1 \right] + 1 \right]^{0.5} - 1}$$
 Reference document: SAE-AS437 / AS418A, (J)TSO-C46a.
- Edit AoA calibration table**: A window showing a table for AoA calibration data. The table has columns for Vane Angle [°], Voltage Ratio [no unit], and Resistance [Ohm].
- Check for linearity of the AoA calibration data**: A window showing a graph of Voltage Ratio vs Vane Angle [°] and a "delta between datapoints and lin. regression" graph. The linearity check is "Passed".
- ent Airspeed Envelope**: A window showing a graph of Altitude vs IAS [knots] with a shaded green area representing the airspeed envelope. A text box indicates: "IAS Limit defined by max TAT = 104.5°C (subsonic-version) and ISA+15 condition IAS: 736 ALT: 2060".

AC32 Air Data Computer Product Configurator Software - Demo