



# AIR DATA UNIT ACCESSORIES

Air Data Unit is used to measure pitot airspeed and barometric altitude in fixed wing aircraft.

It features high accuracy temperature calibrated pitot and static air data sensors and outputs data over RS232.

It can be used standalone, or connected to an Advanced Navigation INS product for outstanding navigation accuracy in fixed wing aircraft when GNSS is not available.



## TEMPERATURE CALIBRATED PRESSURE SENSORS

The Air Data Unit features very high accuracy absolute and differential pressure sensors. These are factory calibrated over a wide temperature range to further increase measurement accuracy and provide the best air data possible through varying conditions.



## POWER UP SELF-CALIBRATION

On top of factory temperature calibration, every time the air data unit powers up, it performs a self excitation calibration to adjust for small deviations of bias and scaling error. This allows the system to compensate for calibration ageing and means that it never needs to be returned to the factory for recalibration.



## RELIABILITY

The Air Data Unit is built on top of a safety oriented real time operating system and all software is designed and tested to safety standards with fault tolerance. Its communication interface is optically isolated and the hardware is designed and tested to MIL spec.

# SPECIFICATIONS

## HADWARE

Operating Voltage	5 to 36 V
Input Protection	±40 V
Power Consumption (Typical)	0.075 W
Operating Temperature	-20 to 85 °C
Environmental Protection	IP67 MIL-STD-810G
Shock Limit	100 g
Dimensions	48x42x32 mm
Weight	55 grams

## COMMUNICATION

Interface	RS232
Interface Isolation	Optically Isolated
Speed	115200 baud
Protocol	AN Packet Protocol
Output Data Rate	20 Hz

## SENSORS

SENSOR	LOW SPEED VARIANT	STANDARD VARIANT	HIGH SPEED VARIANT
Maximum Airspeed	63 m/s	225 m/s	420 m/s
Minimum Valid Airspeed	8.0 m/s	20 m/s	48 m/s
Airspeed Accuracy	0.5 m/s	1.0 m/s	2.0 m/s
Altitude Accuracy (turn on to turn on)	18 m	18 m	18 m
Altitude Accuracy (in run)	1.0 m	1.0 m	1.0 m
Altitude Resolution	0.0015 m	0.0015 m	0.0015 m
Airspeed Resolution	0.00005 m/s	0.0001 m/s	0.0004 m/s
Calibrated Temperature Range	-20 to 60 °C	-20 to 60 °C	-20 to 60 °C
Burst Airspeed Pressure	34 kPa	103 kPa	310 kPa

## HEAD OFFICE

+61 2 9099 3800

[sales@advancednavigation.com](mailto:sales@advancednavigation.com)

Level 12, 255 George Street  
Sydney NSW 2000  
Australia

## EUROPE

+44 20 3875 3118

[uksales@advancednavigation.com](mailto:uksales@advancednavigation.com)

One Kingdom Street, Paddington Central  
London, W2 6BD  
United Kingdom

## NORTH AMERICA

+1 863 777 0224

[usasales@advancednavigation.com](mailto:usasales@advancednavigation.com)

1420 Kettner Blvd, Suite #100  
San Diego CA 92101  
United States

## SUBSEA RESEARCH CENTRE

+61 8 6146 5600

245 Balcatta Road,  
Balcatta 6021 WA  
Australia