



The Aeroprobe Atlas μ ADS is a complete solution for in flight measurement of air data at an unprecedented combination of range, size, and accuracy. The Atlas μ ADS consists of two primary components: a Pitot-Static Probe and Atlas Micro Air Data Computer (μ ADC). These components provide direct measurements of airspeed, static and total pressure, and barometric altitude.



FEATURES

- User Configurable Operational Modes
- Command Line Interface
- Field Upgradeable Firmware
- Battery-backed Real Time Clock/Calendar
- Start-up Sync Signal (TTL Trigger)
- Rugged Aluminum Enclosure
- LED Indicator Lights
- Data Logging (Standard 8GB)
- External GPS Synchronization
- PT100 RTD Temperature Input
- Mounting Hardware
- Probe Heater Control



TABLE 1 / SPECIFICATIONS

Table 1. System Specifications		
ELECTRICAL		
Input Voltage Range	8 to 36	VDC
Current Draw at 12 VDC	90	mA
Power	1.1	W
Probe Heater Voltage Range	5 to 28	VDC
Probe Heater Power at 28 VDC	56	W
RTD (Class A or B) Range	-200 to 600	°C
COMMUNICATION		
Sampling Data Rate Options ¹	10, 20, 50, 100	Hz
Serial Specification Options	RS232, RS422	-
Serial Data Output Streaming Rate Options ¹	460800, 230400, 115200, 57600, 38400, 19200	bps
Analog to Digital Resolution, bits	16	bits
MECHANICAL		
Size	66 x 79 x 41 (2.6 x 3.1 x 1.6)	mm (inches)
Mounting Flange Footprint	66 x 97 x 1.5 (2.6 x 3.8 x 0.06)	mm (inches)
Weight	181	grams

¹Serial streaming data rate and sample rate are interrelated. All combinations are not available. Refer to the Aeroprobe Micro Air Data Interface Document (Document No. 90001-14 -ICD -03).

TABLE 2 / RANGE OPTIONS

Table 2. Range Options (Properties at Sea Level, 15°C)				
Speed Range		Low	Mid	High
Maximum Indicated Airspeed		63 m/s, Mach 0.19	157 m/s, Mach 0.46	304 m/s, Mach 0.89
Recommended Minimum Airspeed ¹		4.0 m/s	7.0 m/s	14 m/s
Indicated Airspeed Error ²	±4° AoA	±1 m/s	±1 m/s	±2 m/s
	±8° AoA	±2 m/s	±3 m/s	±4 m/s
	±12° AoA	±3 m/s	±5 m/s	±6 m/s
Minimum Reported Airspeed ³		2.5 m/s	6.0 m/s	13 m/s
Maximum Safe Over-Pressure ⁴		9.7 psi	10 psi	10 psi
Barometric Altitude Range		-298 to 20000 meters		
Barometric Altitude Resolution		1 meter		
Barometric Altitude Error at Sea Level ⁵		±24 meters		
Operating Temperature Range ⁶		-40 to 85°C		
Storage Temperature Range		-55 to 85°C		

¹ Indicated airspeeds below minimum recommended values may result in IAS errors greater than specified.

² Assumes use with Aeroprobe Pitot-Static probes. Can be used with third party probes though accuracy is not guaranteed.

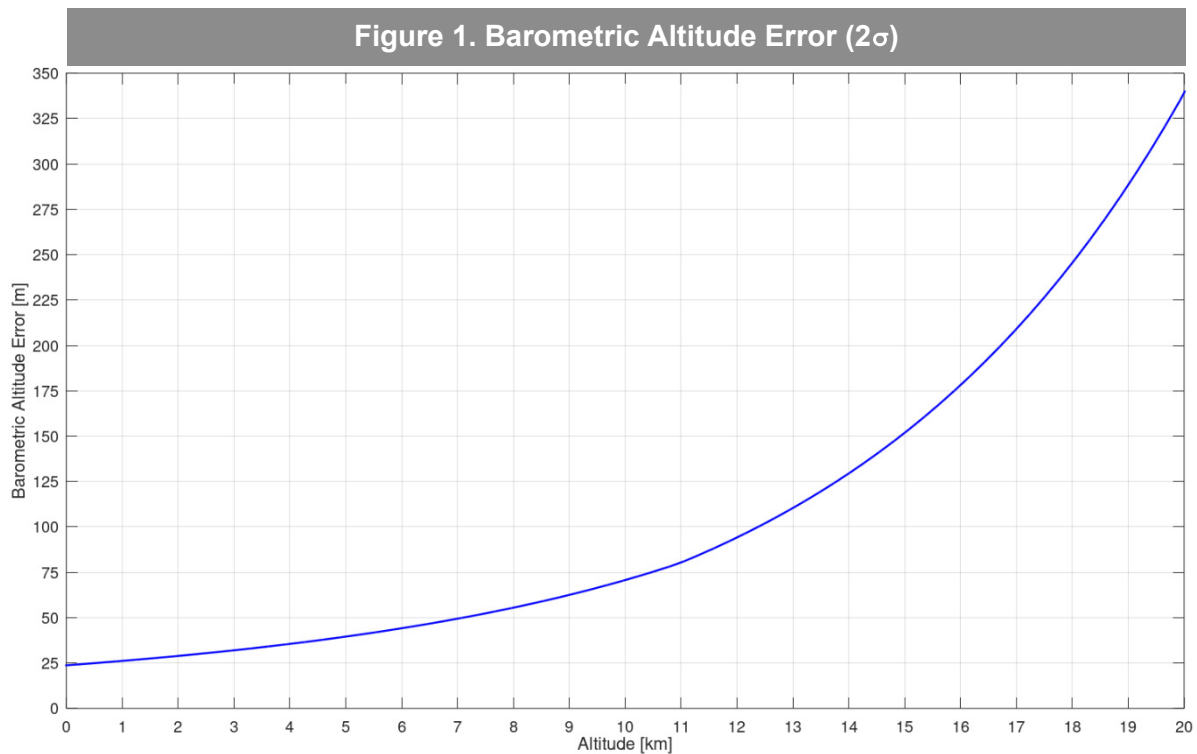
³ The minimum reported airspeed is dictated by the minimum dynamic pressure that can accurately be measured at zero altitude.

⁴ Pressures above the specified maximum safe over-pressure will cause damage to the internal pressure sensors.

⁵ Does not include error due to local barometric pressure variance. See Figure 1 for more detail.

⁶ Still air at sea level pressure.

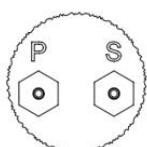
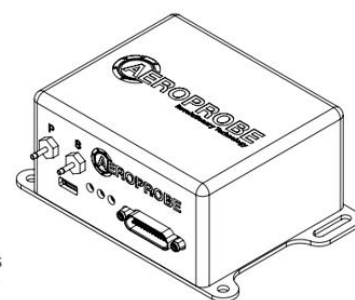
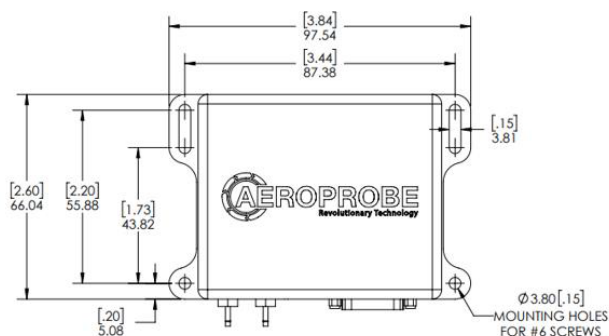
FIGURE 1. BAROMETRIC ALTITUDE ERROR



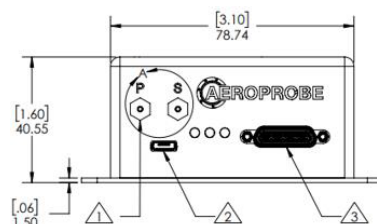
MECHANICAL PROPERTIES

NOTES:

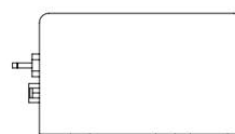
- ⚠ $\varnothing 1.6\text{mm}$ [1/16"] BARB FITTINGS FOR FLEXIBLE PNEUMATIC TUBING.
- ⚠ MICRO USB CONNECTOR
- ⚠ 25 POSITION (F) CANNON



DETAIL A
SCALE 2 : 1



TOTAL PRESSURE AND STATIC PRESSURE
 $\varnothing 1.6$ [.06] BARB FITTINGS FOR FLEXIBLE TUBING



■ OPTIONAL ACCESSORY: QUICK START CABLE 36"

The Quick Start Cable allows for simple connection between the μADC and a PC to facilitate easy access to the Command Line Interface (CLI). It is intended to be used in bench top applications and is not recommended for flight. No separate power supply is required as power is provided via a USB connection. Streaming data is accessed via RS232 or RS422 connection. Terminal emulator and RS232/422 to USB adapter not provided.

