



The Professional Ultrasonic Wind Sensor is a solid state, heated anemometer designed for use within the aviation industry. The sensor has been accepted for service by both the Federal Aviation Administration (FAA) (USA) and the Civil Aviation Authority (CAA) (UK) for the observation and reporting of surface wind. This sensor meets the requirements of Annex 3 to the Convention on International Civil Aviation (ICAO) when supplied as part of a suitable AWOS\*.

With 150 watts of electrical heating in the anemometer head producing  $1 \text{ watt/cm}^2$  and tested in accordance with MIL-STD-810F, the unit is particularly suited to operate as part of Aviation Automatic Weather Observing Systems, which are often exposed to extreme weather conditions. Manufactured from IP66 rated stainless steel with no moving parts, the sensor requires no on-site calibration and minimal maintenance.

\*Accepted by the FAA and CAA for the observation and reporting of surface wind as part of a suitable AWOS (Automatic Weather Observing System).

## Key Features

- AA and CAA Accepted\*
- High heating power 7A @24VAC or DC ( $1\text{W/cm}^2$ )
- Wind speed range 0-70m/s
- 0-359° wind direction range (no dead band)
- Calibration traceable to NAMAS standards
- Stainless steel construction
- Free data logging software

## Typical Applications

- Aviation Weather Observing Systems
- Aircraft Landing Systems
- Remote Meteorological Systems
- Helicopter Landing Pads
- Transport Safety

**The Professional Ultrasonic Wind Sensor  
is an excellent choice for aviation use.**



## Technical Specifications

### Wind Speed

- Range: 0-70 m/s (0-156 mph)
- Starting threshold: 0.01 m/s
- Accuracy:  $\pm 2\%$  @12 m/s
- Resolution: 0.01 m/s
- Offset:  $\pm 0.01$  m/s

### Direction

- Range: 0-359°
- Dead band direction: None
- Accuracy:  $\pm 2^\circ$  @12 m/s
- Resolution: 1°

### Measurement

- Ultrasonic output rate: 1-4 Hz
- Parameters: UV, Polar, NMEA
- Units: m/s, knots, mph, kph, ft/min
- Averaging: Flexible 1-3600 seconds

### Power Requirement

- Anemometer only: 20-30 VDC (60mA max, 50mA average)
- Heating: Max 7A @24 VAC or DC

### Digital Output

- Communication (Operation): RS422/RS485 full duplex/half duplex
- Baud Rates: 1200, 2400, 4800, 9600, 19200, 38400
- Formats: 8 bit data; odd, even, or no parity
- Anemometer status: Supplied as part of standard message

### Mechanical

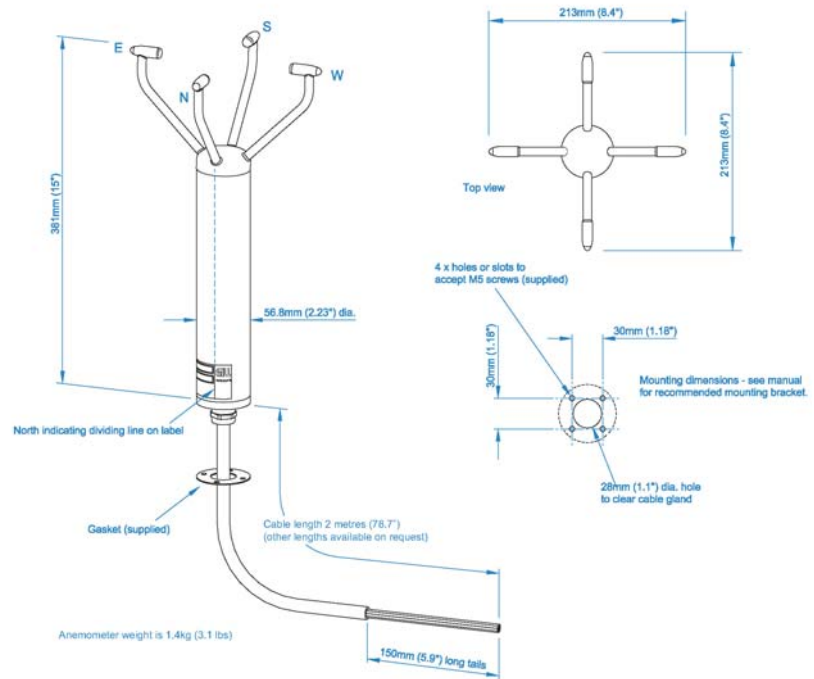
- External construction: Stainless steel 316
- Size: 426 mm x 213 mm
- Weight: 1.9 kg (No cable)

### Environmental

- Protection class: IP66 (NEMA4X)
- Operating temp: -55°C to +70°C
- Precipitation: 300 mm/hr
- EMC: EN 61326-1: 2006, EN 55011: 2007
- Icing: MILSTD810F Method 521.2 Procedure I

### Approvals

- Standards: Traceable to NAMAS standards
- Site Calibration: None required. Integrity check unit (Zero wind) supplied as optional extra



Professional Ultrasonic Wind Sensor Dimensions

