



allweatherinc

Ultrasonic Wind Sensor Model 2041HH



- **Virtually Maintenance Free**
- **No On-Site Calibration**
- **Great Solution for Extreme Weather Conditions**
- **Transport Canada Approved**

Overview

The AWI Model 2041HH Ultrasonic Wind Sensor provides the best solution on the market for reliable, accurate and cost-effective wind speed and directional measurement. It combines the latest patented advances in ultrasonic technology together with AWI's years of experience as the recognized world-leading supplier of all-weather sensors. The elimination of moving parts, together with a rugged stainless steel construction, means that AWI Ultrasonic Wind Sensor is virtually maintenance-free and requires no calibration on site. The heated head keeps the unit free from ice and snow, providing continuous use even in the most extreme weather conditions. The units of wind speed, output rate, and format are all user selectable.

Communication is via an RS-422 bi-directional link or RS-485, which allows several units to be networked together and data to be logged on demand. The AWI Ultrasonic Wind Sensor has been rigorously tested to internationally recognized standards and meets the stringent performance criteria specified by airport, marine, oil, production, meteorological and utility organizations around the world.

This wind sensor can also be used in conjunction with a PC, datalogger or other device, provided it is compatible with the RS-422 output, RS-485 output, or the analog outputs. Multiple units can be networked if required.

Alternatively, the Model 2041HH is designed to connect directly to the AWI WindDisplay unit to provide a complete wind speed and direction system without any configuration required by the user.

The output message format can be configured in Polar, UV (2-axis), NMEA (0183 Version 3), and as either a Continuous output or Polled (requested by host system).

The Model 2041HH may be configured using standard communications software on a PC.

The Model 2041HH is approved by Transport Canada, meeting the most current regulatory requirements.

SENSORS

SPECIFICATIONS

MEASUREMENT	
Output	1 – 4 Hz
Parameters	UV, Polar, NMEA
Units	m/s, knots, mph, km/h, ft/min
Averaging	Flexible 1-3600 seconds
WIND SPEED	
Range	0 – 75 m/s (0 – 168 mph)
Accuracy	±2% @ 12m/s
Resolution	0.01 m/s
Offset	±0.01 m/s
DIRECTION	
Range	0 – 359°
Dead Band Direction	None
Accuracy	±2%
Resolution	1°
SERIAL OUTPUT	
Communication	RS-422/RS-485, full duplex/half duplex
Baud Rates	1200, 2400, 4800, 9600, 19200, 38400
Formats	8 data bits; odd, even, or no parity
Anemometer Status	Supplied as part of standard message
POWER REQUIREMENTS	
Anemometer Only	9–30 V DC (60 mA max, 50 mA average @ 12 V DC)
Heating	7 A @ 24 V AC/DC
ENVIRONMENTAL	
Operating Temperature Range	-55°C to +70°C
Relative Humidity	0% to 100%, noncondensing
Precipitation Tolerance	300 mm/h
Icing	MILSTD810F Method 521.1 Procedure 1
Moisture Protection	IP66 (NEMA4X)
EMC	
EMC	EN 61000-6-2:2001 EN 61000-6-3:2001

ORDERING INFO

Part Number	Description
2041HH	Ultrasonic Wind Sensor with High Heat
M488270-01	Corrosion Resistant Mounting Kit
M488302-00	Mounting Bracket - Pole Mounting

DIMENSIONS & WEIGHTS

Size	15.94" x 8.27" (405 mm x 213 mm)
Weight	3.31 lbs (1.3 kg)
Shipping Weight	11.0 lbs (with cable) (5 kg)



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