

Ultrasonic Wind Sensor Model 2040/2041 Series

Overview

The AWI Model 2040/2041 series ultrasonic wind sensors are robust, lightweight, corrosion-resistant, and have no moving parts. They output wind speed and direction. The wind speed units, output rate and data formats are all user-selectable.

The wind sensors are available with or without de-icing heating (recommended when icing is likely).

The wind sensors can be used in conjunction with a PC, and integrate the raw data to a data logger for pre-processing and/ or transmission to other devices, provided it is compatible with the RS-422 output. Multiple units can be networked as required.

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

The wind sensors are configured using standard communications software on a PC.

Virtually Maintenance Free No On-Site Calibration Needed Great Solution for Extreme Weather Conditions

- FAA Certified
- ICAO/WMO Compliant

ORDERING INFO

The following Ultrasonic Wind Sensor models are available. Models with a cable have the specified cable length attached through a gland to the electronics in the wind sensor. Select a cable from the Accessories for models with a connector; cable lengths from 10 to 30 m are available. Connectorized versions allow for replacement of the wind sensor without having to reinstall a new wind sensor and cable.

Model	Description	Cable	Connector	Unheated	Heated	High Heat
2040	With 10 m cable	10 m		Х		
2040C	With connector		Х	Х		
2040H	Heated, with 10 m cable	10 m			Х	
2040HC	Heated, with connector		Х		Х	
2040HH	High Heat, with 10 m cable	10 m				Х
2040HHC	High Heat, with connector		Х			Х
2040L	With 15 m cable	15 m		Х		
2040HL	Heated, with 15 m cable	15 m			Х	
2041C	Wind speed to 75 m/s, w/ connector		Х			
2041HH	Wind speed to 75 m/s, w/ cable	10 m				Х



SPECIFICATIONS

Measurement Output Frequency 1, 2, 4, 5, 8, 10 Hz Output Interval 100, 125, 200, 250, 500, 1000 ms Parameters UV, Polar, NMEA, Tunnel Units m/s, knots, mph, km/h, ft/min Averaging Flexible 1–3600 seconds Threshold 0.01 m/s Wind Sperement 0.01 m/s Wind Sperement 0.01 m/s Wind Sperement 0.01 m/s 2040, 2040/C, 2040/L,					
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Heating Option 2040H, 2040HC 3 A @ 24 V AC/DC 2040HH, 2040HHC 7 A @ 24 V AC/DC Environmental Operating Temp Range -55°C to +70°C Relative Humidity 0% to 100% Precipitation Tolerance 316 stainless steel Moisture Protection IP66 (NEMA 4X)	Power Requirements				
Option 2040HH, 2040HHC 7 A @ 24 V AC/DC Environmental 75°C to +70°C Operating Temp Range -55°C to +70°C Relative Humidity 0% to 100% Precipitation Tolerance 300 mm/h Materials 316 stainless steel Moisture Protection IP66 (NEMA 4X)	Sensor Only		9–30 V DC(40 mA @ 12 V)		
EnvironmentalOperating Temp Range-55°C to +70°CRelative Humidity0% to 100%Precipitation Tolerance300 mm/hMaterials316 stainless steelMoisture ProtectionIP66 (NEMA 4X)		2040H, 2040HC	3 A @ 24 V AC/DC		
Operating Temp Range-55°C to +70°CRelative Humidity0% to 100%Precipitation Tolerance300 mm/hMaterials316 stainless steelMoisture ProtectionIP66 (NEMA 4X)	Option	2040НН, 2040ННС	7 A @ 24 V AC/DC		
Relative Humidity0% to 100%Precipitation Tolerance300 mm/hMaterials316 stainless steelMoisture ProtectionIP66 (NEMA 4X)	Enviror	nmental			
Precipitation Tolerance300 mm/hMaterials316 stainless steelMoisture ProtectionIP66 (NEMA 4X)	Operating Temp Range		-55°C to +70°C		
Materials316 stainless steelMoisture ProtectionIP66 (NEMA 4X)	Relative Humidity		0% to 100%		
Moisture Protection IP66 (NEMA 4X)	Precipitation Tolerance		300 mm/h		
	Materials		316 stainless steel		
EMC EN 61000-6-2:2001, EN 61000-6-3:2001	Moisture Protection		IP66 (NEMA 4X)		
	EMC		EN 61000-6-2:2001, EN 61000-6-3:2001		

ACCESSORIES

Part Number	Description	
M493080-00*	30 m (100 ft) cable for wind sensors with connectors	
M493104-00*	20 m (70 ft) cable for wind sensors with connectors	
M493081-00*	10 m (35 ft) cable for wind sensors with connectors	
M105548-00	Zero Wind Chamber for Maintenance	
M488623-00	2040/2041 Universal Mounting Kit	
M488270-01	Corrosion-Resistant Mounting Kit	
M488302-00	Mounting Bracket for Pole Mounting	

* Select one of these cables for "connectorized" wind sensors (sensors with "C" in the Model number)

DIMENSIONS & WEIGHTS

	2040, 2040H	405 × 210 mm (15.94" x 8.27")	
	2040HH	426 × 213 mm (16.77" x 8.39")	
Size	2041HH	438 × 213 mm (17.25" x 8.39")	
	2040L, 2040HL	446 × 213 mm (17.56" x 8.39")	
	2040C.2040HC, 2040HHC, 2041C	489 × 213 mm (18.68" x 8.39")	
Nominal Weight (wind sensor without cable)		1.4 kg (3.1 lb)	

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