

WATERLOG®

YSI *incorporated*

MODEL H-375

High Performance Wind Sensor

The WaterLOG® Model H-375 Wind Monitor is a high performance, rugged yet accurate and light weight, wind sensor for measuring horizontal wind speed and direction. Its simplicity and corrosion-resistant construction make it ideal for a wide range of wind measuring applications.

KEY FEATURES

- Operating temperature range of -50° to 50° C
- UV stabilized plastic with stainless steel and anodized aluminum fittings
- Precision grade, stainless steel ball bearings
- Transient protection and cable terminations located in an environmentally sealed junction box
- Interfaces with many data loggers
- Precision Potentiometer housed in a sealed chamber
- Instrument mounts on a standard 1 inch pipe
- Mounting orientation ring assures correct alignment of wind direction reference
- Slip rings and brushes are eliminated for increased reliability



DATA OUTPUT				
General	Range	Wind Speed	224 mph (0-100 m/s)	
		Azimuth	360° mechanical, 355° electrical (5° open)	
	Accuracy	Wind Speed	± 0.6 mph (0.3 m/s)	
		Wind direction	± 3°	
	Threshold	Propeller	2.2 mph (1.0 m/s)	
		Vane	2.4 mph (1.1 m/s)	
	Dynamic Response	Propeller Distance Constant:	(63% recovery) 8.9 ft. (2.7 m.)	
		Vane Delay Distance:	(50% recovery) 4.3 ft. (1.3 m.)	
		Damping ratio:	0.3	
		Damped Natural Wavelength:	24.3 ft. (7.4 m.)	
		Undamped Natural Wavelength:	23.6 ft. (7.2 m.)	
	Signal Output	Wind Speed	Magnetically induced AC voltage, 3 pulses per revolution. 1800rpm (90 Hz) = 19.7 mph (8.8 m/s)	
		Azimuth	Analog DC voltage from conductive plastic Potentiometer-Resistance 10K, linearity 0.25%	
		Life Expectancy	50 million revolutions	
	Wind Speed Output	The coefficient used to convert the frequency into the desired units should be entered as the frequency slope.		

MECHANICAL DATA			
Physical	Dimensions	Overall Height	14.6 in. (37 cm.)
		Overall Length	21.7 in. (55 cm.)
		Propeller	7 in. (18 cm.) diameter
	Mounting	1.34 in. (34 mm.) diameter (standard. 1 in. pipe)	
Weight	Sensor Weight	2.2 lbs. (1.0 kg.)	
	Shipping Weight	5 lbs. (2.3 kg.)	
Power	Power Requirement	Potentiometer Excitation: 15 VDC maximum	
ENVIRONMENT			
Temperature	Temperature range	-50° to 50° C	
MISCELLANEOUS			
Table	Multiply Frequency By	To Get Units	
	1	Hertz	
	0.0980	Meters/Second	
	0.1904	Knots	
	0.2192	miles/Hours	
	0.3528	Kilometers/Hour	
20	Propeller RPM		
Warranty	The WaterLOG® H-375 is warranted against defects in materials and workmanship for one year from date of shipment.		
Note	Specifications subject to change without prior notice due to ongoing commitment to product testing and improvement. LR February 15, 2011. D47 0211.		

