



# Profile the Wind Up to Tip Height

*With a Portable Laser Wind Sensor*

## REVOLUTIONARY TECHNOLOGY

The Vindicator® laser wind sensor (LWS) is a lightweight, portable, all-weather wind assessment tool that precisely measures wind speed and direction up to 150 meters above ground – the full tip height of the largest utility scale wind turbines. The Vindicator® LWS is the ultimate tool for wind prospecting, wind resource assessment and wind turbine performance assessment – removing the guesswork from your engineering analyses using laser-generated precision.

## ALL-WEATHER WIND ASSESSMENT BOTH ON AND OFF SHORE

Tested from -40°C to 55°C, the Vindicator® LWS is a robust, rugged, all-weather system that generates an accurate three-dimensional vector of the wind in all conditions and environments, including offshore. With its built-in motion compensation, the system can be mounted on a moving platform and still maintain accurate wind data. Moisture and salt spray did not affect the performance of the Vindicator® LWS when tested in extreme marine environments.

## MINIMAL ENVIRONMENTAL IMPACT

Because the Vindicator® LWS is a portable unit, you don't need to install a tower or obtain a permit. Instead, it can be mounted easily in a truck or other vehicle, driven to a site, and operated with minimal setup time, and no adverse effect on the environment.

## WIND TURBINE PERFORMANCE ASSESSMENT

With the Vindicator® LWS, you can determine the profile of the wind flow in front of a wind turbine, analyzing the performance against the manufacturer's specifications. The Vindicator® system can be used to quickly survey sites and gather precise wind data with ease and flexibility.

## Vindicator® Laser Wind Sensor

### Functional Specifications

Operating Wavelength	1550 nm
Wind Speed Range	0 - 90 m/s
Sensing Range	30 to 150 meters
Number of Range Gates	3 - 6
Range Gate Depth	± 20 meters
Wind Speed Accuracy	± 0.5 m/s
Wind Direction Accuracy	± 1°
Data Output Rate	1 Hz*
Data Output Format	TCP/IP Modbus over Ethernet**
Internal Data Storage	3 months
Laser Eye-Safety	Class 1M (IEC/EN 60825-1)

### System Dimensions

Remote Laser Unit	30" L x 19" D
Power & Connectivity Unit	17.5" L x 16" W x 10.5" H

### System Weight

Remote Laser Unit	65 lbs.
Power & Connectivity Unit	50 lbs.

### System Power

Input Power	110VAC (60Hz) 230VAC (50Hz)
Power Consumption	<b>0° to 55°C:</b> 200W max. <b>-40° to 0°C:</b> 600W max.

### Environmental Specifications

Operating Temperature	-40° to 55°C (-40° to 130°F)
Storage Temperature	-40° to 85°C (-40° to 185°F)

\*Option for 10 Hz data output rate is available

\*\*CANbus/CANopen available upon request

Contact Catch the Wind, Inc. for pricing information.  
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[www.catchthewindinc.com/vindicator](http://www.catchthewindinc.com/vindicator)

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