

SPIDAR VERTICAL PROFILER

COMPLETE LIDAR SOLUTIONS

Our decade-long remote sensing journey has led us to Spidar, a flexible, highly mobile Direct Detect Lidar that can lower the cost and measurement uncertainty of your campaigns.

Key Benefits:

- DNV GL Stage 2 status, capable of adding value to wind energy projects with campaign finance requirements
- Over a dozen performance verifications carried out by several leading, independent consultants
- Advantages of remote sensing at a lower cost than other Lidars and lattice towers
- Available in all regions via Global Value Added Reseller network
- Comprehensive technical support and integrated services for all project development stages
- Turnkey installations that meet project-specific needs, including remote power supplies



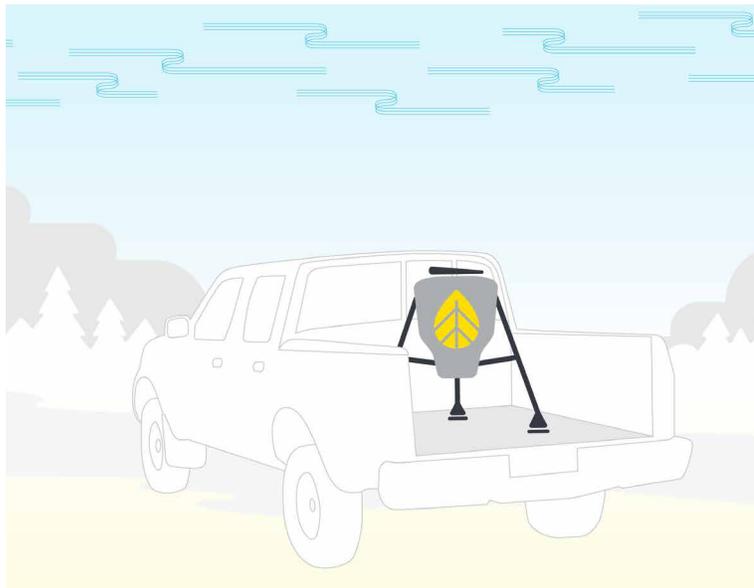
NRGSystems®

SPECIFICATIONS:

SYSTEM	
Description	Ground-based vertical profiling Direct Detect Lidar (DDL)
Applications	Prospecting, wind shear validation, informal turbine power performance testing
Calibration	All units factory verified against IEC calibrated reference Lidar. IEC calibration available upon request.
Warranty	2 years* *Some limitations apply. See Spidar Limited Warranty Statement for details.

VERIFIED WIND MEASUREMENT PERFORMANCE	
Applicable Wind Speed Range	Average results up to 100m range gate from 10 Lidar performance verification tests performed by independent third parties. Achieved using 10-minute averaging interval.
WS Forced Fit Slope	1.004
WS Correlation R²	.984
WS Deviation (±m/s)	0.02 @ 10 m/s
WS Deviation (%)	0.23%

SYSTEM GEOMETRY	
Full Cone Angle	10°
Measurement Height Range	20-200m
Number of Range Gates	10
Range Gate Heights	Configurable



ELECTRICAL SPECIFICATIONS	
Power Consumption	<ul style="list-style-type: none"> > 0°C: 35W < 0°C: 50 to 100W
Supply Voltage	23-32 VDC
DATA SPECIFICATIONS	
Data Sampling Rate	14 Hz
Averaging Interval	Configurable
Storage File Format	ASCII
Storage Capacity	~3 years
Data Output Options	<ul style="list-style-type: none"> .csv files delivered via email at configurable interval Continuous delivery to SCADA network via Modbus
ENVIRONMENTAL SPECIFICATIONS	
Operating Temp Range	-40° to 50°C
Operating RH Range	0 to 100%
Ingress Protection	IP65
Eye Safety Classification	IEC Laser Class 1M

Due to its unique measurement principle based on direct detect Lidar technology, Spidar performs strongest at locations characterized by high turbulence and low atmospheric stability. Spidar performance can be poor at locations with prolonged periods of highly stable atmosphere. Accordingly, NRG advises potential Lidar users to deploy ZX 300 Doppler Lidars at measurement sites with this profile due to their proven track record of providing finance-grade wind measurements regardless of the location's turbulence or atmospheric stability profile.

NRG makes no absolute guarantee of Spidar data availability, due to such site-based variable conditions. All Spidar customers are strongly recommended to consult with NRG before initiating a measurement campaign to confirm that Spidar would be suitable for their site.

For more information:

NRG Sales
 +1 802.482.2255
 sales@nrgsystems.com
 nrgsystems.com
 ISO 9001: 2015 Certified
 ISO 14001: 2015 Self-Certified

