

LiDAR based Windfield measurements system



DESCRIPTION

The WINDFIELD LiDAR system is the unique solution for embedded onshore and offshore wind measurements.

Thanks to the innovative fiber based delivery design, the sensor heads can be mounted anywhere on the vehicle, remote from the main chassis with electronics and laser source, while all active devices like the laser and detection platforms can be easily installed and kept secure inside the vehicle.

DATASHEET

System capacities

Characteristics	Value or type	
Wind data provided	Radial wind speed, reconstructed wind field (from two beams)	
Detection range	100 m to 2000 m	
Velocity range	0 to 30 m/s	
Accuracy	0.1 m/s	
Beam geometry	2 beams inclined at 30° (flexible) for one wind field	
Sensor deployment	Multiple lines of sight linked by rugged optical fiber cables to a unique laser and detection platform	
Data rate	Data rate 1 Hz	
Communication	Ethernet	

Subassemblies main specifications

Characteristics	Value or type	
Sensors		
Sensor type	Short Range (SR)	Long Range (LR)
Range	200 m	2000 m
Deployment	30 m cable	15 m cable
Laser		
Laser outputs	2	4
Wavelength	1550 nm	
Pulse repetition frequency	10 kHz	
Pulse width	500 ns	
Data processing		
Doppler calculation	Fast Fourier Transform on successive range gates	
Range resolution	Adjustable number and size (FFT points) of range gates	

Main Chassis

Power supply voltage	220 VAC
Power consumption	< 40W
Dimensions (W x H x D)	44 x 33.5 x 4.5 cm









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