Leice Wind 3D 10K

3D Scanning Full Sky View Wind LiDAR

Product Description

Based on the principle of optical coherence doppler frequency shift detection, the 3D scanning wind lidar Wind3D 10K can be used for monitoring, identification and early warning of low altitude wind shear, for detection of aircraft wake vortex and to enhance the separation reduction of the dynamic wake vortex.

Equipped with optical scanner of highly pointing accuracy, for 3D scanning detection (in DBS /VAD /PPI /RHI /CAPPI/LOS script scanning modes), the detection radius can be up to 12km.

With a variety of detection modes, such as 3D Stereoscopic scanning, aircraft glide path scanning, wind profile scanning, multi lidar networking, etc., it can meet the demand of aviation meteorological wind measurement, and provide users with comprehensive customized solutions and services.

Functional features and advantages
Full coverage: three dimension wind field detection system for the whole airport and glide slope

Dual probe design: synchronous measurement of wind field and recording of aircraft flight attitude

High precision: wind cup level of wind measurement accuracy (<0.1m/s)

Aviation safety: eye safety and electromagnetic compatibility design

Multiple scanning modes: DBS/VAD/PPI/RHI/CAPPI/LOS aircraft low altitude wind shear and wake vortex detection mode, supporting lidar mission script programming.

High resolution: 10Hz data refresh rate, 15m range resolution

Flexible deployment: small in size, light in weight and low in power consumption, which can be easily deployed in airports and stations.

Unattended: remote networking data acquisition and equipment monitoring

Strong robustness: continuous and stable operation in harsh inland, coastal and plateau environments

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Technical specifications

Specifications	*Parameter*
Laser wavelength	1.5µm, invisible and eye-safe
Radial detection range	60m～12000m
Radial range resolution	15m/30m//60m/150m user defined
Data refresh rate	1Hz～10Hz（programmable）
Radial wind velocity range	-37.5m/s～37.5m/s
Wind velocity resolution	≤0.1m/s
Wind direction resolution	＜3°
Servo pointing accuracy	0.1°
Scanning modes	LOS/DBS/VAD/PPI/RHI/CAPPI script programming
Data outputs	DBS/VAD wind profile, vertical airflow, RHI/PPI/CAPPI radial velocity field and inversion wind field, aircraft glide path wind shear and wake vortex detection and early warning, aerosol back-scattering intensity, extinction coefficient, boundary layer altitude, cloud base height, 3D flow field analysis, GNSS position time, lidar status, ground air temperature, humidity, pressure etc.
Weight	＜90kg