

WindCube Scan *Airport Edition*

Long-range wind observations for mitigating wind hazards at any airport, in any conditions



Key benefits

Maintain optimum performance over the long term

Robust, long-lasting components greatly reduce total cost of ownership, while the advanced scanning head design minimizes maintenance and reduces disruptions. An industry-leading 3-year warranty and maintenance package are included as standard plus a simple, hassle free, annually renewable service contract.

Rely on high performance and accuracy

Get a clear picture of the entire wind field and increase your situational awareness with new 3D volume scans, and use segment scans to scan along a glide path for safer landings. Improved laser design captures the wind field with improved data quality. One system lets you reliably capture wind vortices and windshear events thanks to increased resolution configurability.

Measure the wind accurately even in extreme conditions

Expand to extreme environments with temperatures ranging from -40° C up to +55° C and operate in areas requiring water and dust resistance. Stay ahead of humidity and frost through an effective heated lens.

Depend on support with the industry leader

Our technology's precision and reliability under varying conditions have been validated time and time again, with more than 2000 wind lidars deployed to customers across the globe.

Accurate, timely windshear detection and wind awareness are crucial for maintaining safety at an airport and its surroundings.


The next generation WindCube® Scan *Airport Edition* gives air traffic controllers, pilots, meteorological observers, and forecasters best-in-class data to understand the current wind conditions and make better operational decisions.

WindCube Scan *Airport Edition* raises the bar for detecting windshear and impending severe weather events under the most extreme conditions, delivering industry-leading measurement and actionable intelligence for safe takeoffs and landings.

With its breakthrough measurement range of up to 18.9km, additional scanning modes and compact, robust design coupled with an industry-leading maintenance and servicing package, WindCube Scan *Airport Edition* is an unattended solution ideally suited for any airport environment.

WindCube® The gold standard

WindCube is the iconic and trusted gold standard in wind lidar. The turnkey product suite offers innovative, reliable, and highly accurate solutions for thousands of customers across the globe. Borne from a passion to advance the field, WindCube continues to take aviation safety and efficiency ever higher through a commitment to four guiding principles:

 Trustworthy, superior metrology

 Innovative lidars from a one-stop shop

 Unrivaled thought leadership

 Easy, reliable global solution

WindCube Scan *Airport Edition* is a versatile device that can be deployed either in standalone for windshear hazards detection, wake vortex assessment, or in combination with other weather sensors as part of the comprehensive Vaisala AviMet® Windshear Alert System.

Key features

Enhanced laser design: Provides accurate measurement up to a maximum distance of 18.9 km, delivering the most timely intelligence for decision-makers to mitigate wind hazards like windshear.

Exclusive lidar scans: Advanced scanning head delivers volume scans to cover 3D volumes and segment scans along an inclined plain, such as a flight glide path for safer take offs and landings.

Resistant to harsh weather conditions: Robust casing and heated scanner features allow the lidar to work in all weather conditions, including humidity, dust, ice, heavy rain and snow.

Reliable in extreme temperatures: From -40 to 55° C, the temperature range is the widest in the industry.

Reduced disruption and hands-off maintenance: Best-in-class components plus an industry-leading warranty and servicing package provide sustained top performance with continuous and timely measurements.

WindCube Scan Airport Edition specifications

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|--------------------------------|---|
| Typical wind measurement range | 10 km |
| Maximum range | 18.9 km |
| Scanner rotation speed | Up to 50°/s |
| Accumulation time | From 0.1s to 10s |
| Data transfer | Ethernet/LAN |
| Data format | Export in NetCDF by graphic interface or to FTP server |
| API type | REST web API |
| API functionalities | Lidar configuration and monitoring; status/activities/logs monitoring; data download (JSON stream and NetCDF files) |
| Weight | 220kg (system only) |
| Temperature range | -40 to +55° C |
| Power consumption | 1100W maximum average power (including the use of coolers and heaters), brief peaks up to 1600W |

Why Vaisala?

We believe in the relentless pursuit of quality and performance, anywhere and everywhere. Vaisala is the most experienced aviation weather company in the world, with a suite of solutions built on more than 45 years of aviation expertise that are trusted in more than 160 countries, at more than 2000 airports worldwide. Our advanced WindCube lidar offerings are used across diverse applications and industries such as renewable energy, maritime, meteorological services and more.

Look to Vaisala for dependable support, project capabilities, and training so you can get the most from your solution. With decades of experience providing the best technologies and the finest support, our philosophy of partnership is unmatched in the industry.



Trusted aviation weather from cloud to ground

VAISALA

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