

# WindCube vertical profiling lidar

**VAISALA**

## Product Spotlight

### Unrivalled wind profile measurement for urban and industrial air quality management and forecasting

Wind can either bring in pollutants or remove them, and severe pollution events often take place when local weather phenomena are dominating larger-scale synoptic forces. Local wind assessment significantly improves situational awareness of pollutants generation, their transport and their danger to communities. This information is needed for air quality forecasting in urban areas and for industrial pollutants dispersion modeling in case of accidental release.



## Key benefits

Pulsed lidar technology provides constant accuracy up to 300m with excellent data availability.

Enjoy WindCube Insights – Fleet; a cloud-based software for fast insights and simple system management.

Fast in-field communications and data transfers are made possible with an included 4G modem.

Deploy almost anywhere thanks to an unobtrusive design and an affordable remote power pack.

## Why Vaisala?

As the global leader in weather and environmental measurements, Vaisala empowers businesses and community leaders to build resilience to climate change and extreme weather events. Our 85+ years of expertise is grounded in science, innovation and our unwavering commitment to constantly evolving.

We boldly demonstrate that a culture of resilience and a connection to nature can create new ways of smarter, resilient living. We are champions for smarter, safer and more sustainable urban communities.

Wind is a moving target, and air quality forecasters need accurate wind profile measurement to understand local complex winds and their impact on pollutant transport (e.g., local-level recirculation, horizontal dispersion). These factors often drive the dispersion of pollutants and accurate wind assessment can reduce uncertainty and enable better decision-making.

WindCube® lidars are known as the gold standard of lidar technology the world over. The WindCube vertical profiling lidar provides unrivalled wind profile measurement capabilities and services for accurate, real-time wind data around the clock.

A highly refined, mature technology, WindCube provides wind speed, wind direction, turbulence intensity, vertical wind speed and data availability up to 300m in height. It is compact, easy to install and highly reliable – suitable for urban, industrial and remote areas.

Also included is WindCube Insights – Fleet software, an easy-to-use, secure, cloud-based tool that provides real-time insights and simple management for one unit or many.

## Applications

- Urban air quality monitoring and forecasting
- Industrial pollutant dispersion modeling
- Weather monitoring and decision support
- Atmospheric sciences and air quality research

