VAISALA

CL61 lidar ceilometer with depolarization

Filling the gap between research instruments and ceilometers



With today's changing climate, high-quality vertical profiling data provides the insights needed to improve Numerical Weather Prediction (NWP) models, understand icing conditions and track particles such as smoke, volcanic ash or sand plumes.

Work smarter with vertical profiling to get more detailed atmospheric data and insights than ever before from your operational network.

The Vaisala CL61 ceilometer is a first-of-its kind technology that offers more than standard ceilometer reporting. This high-end lidar ceilometer features depolarization profiles, providing additional data including particle differentiation for greater situational awareness. Depolarization measurement enables accurate liquid and frozen differentiation as well as detection of dust and volcanic ash layers. The data can be used in multiple applications ranging from NWP modelling and verification to nowcasting for safer air travel and operation.

The CL61 also features enhanced single-lens optics which significantly improve signal-to-noise ratio to provide high-resolution backscatter profiles — all in a cost-efficient design.



Key benefits

Cost effective, research grade performance

Provides accurate liquid/frozen differentiation and detection of dust, sand and ash layers in a simple, affordable package

Easy to install and integrate

From box to operation in less than an hour, with easy connectivity using NetCDF data format and integration with existing Vaisala ceilometer footprints

Saves time and costs

Virtually maintenance-free with no consumable parts, remote monitoring, automated basic maintenance and troubleshooting, plus professional software security

Designed for operational networks

Reliable, uninterrupted measurements in any weather unlocks new opportunities for collecting and utilizing comprehensive datasets from multiple locations

Backed by the weather industry experts

Provides peace of mind with Vaisala expertise and global support, based on 80 years of fact-based observation and proven field testing

Expertise means quality

Thousands of Vaisala ceilometers are installed in over

Key features

- Depolarization measurement provides differentiation of liquid and solid particles
- Enhanced optical system enables ultrapure profiles that reveal more atmospheric details
- Single lens technology ensures excellent measurement, even at low altitudes
- Narrow banded transmitter technology patented innovation to remove water vapor absorption effect
- Traceable factory calibration to ensure reliable measurement

Today's meteorological networks need to work harder and provide more data — accurately and reliably. Vaisala has developed the CL61 with these requirements in mind and much more, raising the standard for high-performance ceilometers that provide real-time actionable information and greater insight.

The flexible and cost-effective CL61 ceilometer puts research grade performance in the hands of decision makers in weather, aviation, air quality management and research institutes. The device allows you to build a network of instruments or integrate it into existing networks.

Why Vaisala?

Expertise and innovation

We believe in the relentless pursuit of quality and performance, anywhere and everywhere. Count on a dedicated partner with 80+ years of experience, customers in more than 170 countries, a presence at the North and South poles, and with NASA on Mars.

Through innovation, continual industry investment, and an innate curiosity, Vaisala strives to produce high-quality and dependable weather and air quality measuring solutions that provide observations for a better world.

Dependable support

Look to Vaisala for customized support, training and project management so you can get the most from your equipment. With decades of experience providing the best technologies and the finest support, Vaisala's philosophy of partnership is unmatched in the industry.



