

# Vaisala Ceilometer CL31

VAISALA

## Product Spotlight

### Providing trusted weather observations for a sustainable future

Accurate, reliable cloud base height  
and vertical visibility data to 25,000ft  
(7.6km)

Fast, accurate cloud and visibility  
detection is crucial to creating precise  
forecasting, situational awareness,  
and air quality reporting. Even when  
the weather is at its worst, Vaisala's  
Ceilometer CL31 captures the detailed  
cloud layer data needed to build  
precision simulations of existing  
conditions. After all, the quality of  
weather modeling is only as good as the  
data you collect.



## Key benefits

Advanced single-lens optics and processing provides improved performance for cloud and mixing layer height measurements, especially for low clouds and low inversion layers, precipitation, and fog.

Pulsed diode lidar for reliable operation and long life expectancy.

Full backscatter profiling with detailed accuracy and reliability in all weather conditions up to 25,000ft (7.6km).

Fast measurement technology that delivers accurate detection of the fine cloud base structure such as the detection of thin stratus cloud patches below a solid cloud base.

Complete, preconfigured delivery, including main assembly, sensors, and power equipment for easy installation. Fits on the foundation of earlier Vaisala ceilometers for quick upgrades.

## Why Vaisala?

As the global leader in weather and environmental measurements, Vaisala provides trusted weather observations for a sustainable future. With over 85 years of experience and customers in 170+ countries, from the North and South Poles to Mars, we help provide the most reliable and accurate weather and climate information for better and safer daily lives.

Our instruments and intelligence are known as the gold standard for precision and reliability. As a sustainability leader we enable meteorology professionals to better understand, forecast and explain climate change. We continue to channel our curiosity into climate action and new ways of enabling a better planet for all.

The CL31 was designed to deliver cloud base height and vertical visibility measurements in all types of weather – good or bad. It's the perfect monitoring tool for capturing accurate cloud and mixing layer height data meteorologists and aviation specialists need to generate detailed weather prediction models for operational and safety planning. Advanced sensor and lidar technology lets you capture three cloud layers simultaneously, delivering detailed measurements especially for low clouds and low inversion layers, precipitation, and fog. Add the optional Vaisala Sky Condition algorithm, and you have an easy and cost-effective way to generate even more useful information from your ceilometer.

## Applications:

- Reliable cloud detection and reporting for critical operational safety in meteorological and aviation settings
- Inputting cloud height and sky condition source data for numerical weather prediction models.
- Verification of numerical weather forecasting and dispersion models
- Generating vertical profiling data to provide comprehensive understanding of the atmosphere
- Automatic monitoring of boundary layer structures
- Supporting air quality data processing systems to study the interaction between pollutants and meteorological factors

