DIAL Atmospheric Profiler DA10

VAISALA

Product Spotlight

Providing trusted weather observations for a sustainable future

Get enhanced severe weather forecasting and climate modeling with advanced, real-time water vapor profiles.

Measuring water vapor in the atmosphere has always been a manual, time-consuming and expensive process, led by the observation community. Until now. The revolutionary Vaisala DA10 differential absorption lidar (DIAL) is the industry's first atmospheric profiler with continuous and autonomous water vapor monitoring within the boundary layer, providing meteorologists and forecasters with 24/7 monitoring of atmospheric humidity for improved severe weather warnings.

Key benefits

NetCDF data format is plug-and-play for modeling, and compatible with third-party visualization tools.

Equipped with comprehensive system security, down to the user level. Plus, remote firmware upgrades fortify data management and sources.

Ensure high level of detail in profiles thanks for superior signal-to-noise ratio.

DA10 works as a super ceilometer, and includes functions like cloud and sky condition reporting.

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.

DIAL in smarter, faster, continuous humidity profiling

While globally coordinated upper-air observations provide an overall picture of humidity patterns, DA10 continuously measures water vapor in the boundary layer, in any location, under any conditions. DA10 unlocks access to extensive, research-grade data suitable for NWP modeling that has not been readily available before, and doubles as a super ceilometer with ultrapure profiles.

Single lens technology minimizes multiple scattering for improved detection in harsh conditions, while excellent overlap ensures low altitude detection (below 200 m). Capable of water vapor profiling of up to 4 km, and enhanced near and far optics, DA10 provides excellent full-range measurement profiles.

When combined with weather and climate modelling, meteorological services gain access to highly accurate and reliable local observations, vital for issuing early warning alerts for local communities in advance of dangerous weather conditions, like thunderstorms and flash flooding.

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INVISIBLE LASER RADIATION
DO NOT VIEW DIRECTLY
WITH OPTICAL INSTRUMENTS.
CLASS 1M LASER PRODUCT