



SkyVUE™8M 8 km Ceiling Tactical LIDAR Ceilometer

For quick tactical deployment for
military or civilian use

Overview

The SkyVUE™8M is a generously specified ceilometer for quick tactical deployment (for permanent or temporary installation) across military or civilian applications.

Its robust construction requires minimal maintenance and enables continuous use and multiple deployments in the harshest of environments. Designed to be easily portable, the SkyVUE™8M has unique quick deploy stabilising legs, low weight and a compact design with a range of finishes to suit all applications.

The SkyVUE™8M has many standard features, from a tilting base and two-axis inclinometer for automatic correction of cloud heights, to heaters, blowers and sun filter for operation

under all conditions, making deployments possible around the world.

The SkyVUE™8M has an operating range of 8 km and meets or exceeds all the necessary ICAO, CAA and WMO requirements and recommendations.

Unique standard features include an easy-to-operate Stratocumulus calibration and twin clocks to augment its many continuous diagnostic self-checks, to provide assurance of continuous, reliable and accurate performance.

Benefits and Features

- › Single lens design for high signal-to-noise ratio, maximized detector sensitivity, resulting in greater performance at low and high altitudes
- › Low weight, small form factor for maximum portability
- › Quick deploy stabilising legs
- › Multiple camouflage options with shroud
- › Low power consumption with multiple power options
- › Unique continuous comparison of two separate internal quartz clocks to eliminate possibility of clock drift, ensuring measurement confidence
- › User-friendly stratocumulus calibration capability and easy test with calibrator plate provided as standard means the unit sensor can be calibrated and easily set up in the field

Technical Description

The SkyVUE™8M LIDAR ceilometer measures cloud height and vertical visibility for meteorological and aviation applications. Utilising LIDAR (Light Detection And Ranging) technology, the ceilometer transmits fast, low-power laser pulses into the atmosphere and detects back-scattered returns from clouds and aerosols above the instrument.

A unique, efficient single lens design increases optical signal-to-noise ratio allowing for larger optics in a compact package improving accuracy and measurement performance.

This approach, along with state-of-the-art electronics, provides a powerful and stable platform from which to measure cloud height and vertical visibility to high accuracy. The SkyVUE™8M measures the atmosphere with high stability and repeatability delivering excellent performance in even the harshest of conditions.

The SkyVUE™8M provides information on cloud height, sky condition (up to five layers), vertical visibility and raw backscatter profiles to a range of 8 km.

Specifications

Instrument Performance

- › Reporting range: 0-8 km (26,250 ft)
- › Minimum reporting resolution: 5 m (15 ft)
- › Hard target range accuracy: $\pm 0.25\% \pm 4.6$ m
- › Reporting cycle: 2 to 600s
- › Cloud layers: Up to four layers reported
- › Sky condition: Up to five layers with cover in oktas according to WMO requirements for SYNOP and METAR codes as standard
- › Laser type: InGaAs
- › Laser wavelength: 912 nm ± 5 nm
- › Eye safety: Class 1M

Electrical Specification

- › DC power source only: 10-40V DC, current drain 1 Amp at 12V DC, 0.5 Amp at 24V DC
- › Interfaces:
 - Data - RS-232 / RS-422 / RS-485 / Ethernet option
 - Maintenance - USB 2.0 (USB 1.1 compatible)
 - Baud rate - 300 - 115200
- › Laser safety compliance: EN 60825-1:2014
- › EMC compliance: EN 61326-1:2013
- › Electrical safety: EN 61010-1:2010

Mechanical Specification

- › Dimensions: 763 x 360 x 253 mm including base and handle
- › Weight: 18 kg

Environmental Specification

- › Temperature range: -40°C to 60°C, -40°F to 140°F
- › Humidity range: 0 - 100% RH
- › IP rating: IP66 (NEMA 4x)
- › Wind speed: 55 m/s

