



CBME80B Cloud Ceilometer as part of a Helideck Monitoring System

## Datasheet

# CBME80B Cloud Ceilometer

The cloud ceilometer CBME80B is a compact and lightweight standalone instrument for measuring cloud base height and vertical visibility.

The design is based on the LIDAR principle. The light emitting component is a low power diode laser with the output power limited to an eye-safe level.

It is designed for both fixed and mobile installations and detects up to three cloud layers simultaneously.

The CBME80B ceilometer is ideal for use in aviation and meteorological applications and is suitable for installations on land, ships and for offshore use.

### Features

- Reliable operation
- Easy installation and maintenance
- Very long laser life (10 years)
- 7500 m / 25 000 feet measuring range
- Low weight and low power consumption

## General

CBME80B is the third generation of ceilometer from Eliasson and is based on the proven and widely used model CBME80.

## Reliability

The ceilometer is very reliable with proven MTBF of over 10 years. The ceilometer come with a standard 1 year warranty, with the option of extending the warranty up to 5 years in total.

## Service and maintenance

The CBME80B is easy to install and requires minimal service. A built-in self-diagnostics test system indicates any failures in the event of a malfunction in a status message sent as part of the data message.

The electronics are located in two easily replaceable subunits, i.e. a power supply module and a master unit. The subunits, as well as the laser diode which is placed in the master unit, can be replaced by spare parts without adjustments or recalibration.

## Integration

The CBME80B includes a number of pre-defined telegram formats and built-in support for RS-232, RS-485 and FSK for easy installation and integration.

## Specification

- Range 0 — 7 500 m / 0 — 25 000 ft
- Reporting resolution
- 10 m / 30 ft, units selectable
- Accuracy Greater of  $\pm 10$  m or  $\pm 1\%$  of height, measured against hard target
- Reporting interval Periodic (15-120 s), selectable  
Polling (any interval)
- Laser safety Eye safe Class 1M in accordance to IEC 60825-1
- Environmental Operating temperature  
-40 to +55 °C / -40 to 130 °F
- Weight 15 kg (standalone)
- Power supply 230V alt 115V AC, 45-65 Hz,  
12V DC (option)
- Power consumption Electronics 30W, Heater 200W  
(when active)
- Output RS-232, RS-485, FSK/V23
- Housing Classification standard IP-54
- Data Cloud height (up to 3 layers) or vertical visibility,  
Cloud amount / sky condition, Status information and  
Backscatter profile.

## Options and accessories

- Window blower
- Solar shutter
- Local display
- Housing classification, IP66
- Colour: Military green
- Graphic software (PC)
- Cloud Presentation Suite
- Digital display OMC-140
- Demodulator

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