



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

Ideal for use in all meteorological applications including aviation, land, maritime and offshore platform.

KEY FEATURES & BENEFITS

- Reliable operation
- Easy installation and maintenance
- Very long laser life (10 years)
- 7500 m / 25,000 feet measuring range
- Low weight and lower power consumption
- 1 year warranty (option to extend up to 5 years)

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 is easy to install and required 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.

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

CBME80B

Cloud Ceilometer Specifications



Performance

Range	0 – 7,500 m / 0 – 25,000 ft
Reporting resolution	10m / 30 ft, Units selectable
Accuracy	Greater of ± 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°C - +55°C / -40°F - 130°F
Weight	15 kg (standalone)

Electrical

Power Supply	115 V or 230 V ac, 45-65 Hz or 12V dc
Power Consumption	Electronics 30W Heater 200W (when active)

Output

Interface	RS-232, RS-485, FSK/V23
Data	Cloud height (up to 3 layers) or vertical visibility Cloud amount / sky condition Status information Backscatter profile

Accessories

Stand	Height: 1m for fixed installations. (The ceilometer may also be mounted directly without stand).
Window blower	Available in 110V or 230V AC version. For enhanced detection in precipitation. (Robust Leister blower). (Stand required).
Housing classification	IP66, for harsh environmental conditions.
Sun Shutter	To protect the equipment when sun in zenith. (Required when deployed in tropical areas).
Cloud Presentation Suite	Graphical display software for Windows (PC).
Demodulator	To be used on host side if V.23/FSK output is used.
Local display	For local display of current measurement.
Green Colour: RAL6003	To include ceilometer, stand and blower
Digital display	A standalone display to be used instead of (or as a complement to) a software based presentation system.

