CBME 80B

Cloud Ceilometer

The cloud ceilometer CBME 80B is a compact and lightweight standalone instrument for measuring cloud base height and vertical visibility.

Reliable operation

Easy installation and maintenance

Very long laser life (10 years)

7600 m / 25 000 feet measuring range

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 CBME 80B ceilometer is ideal for use in aviation and meteorological applications and is suitable for installations on land, ships and for offshore use. CBME 80B is the third generation of ceilometer and is based on the proven and widely used model CBME80. The ceilometer is very reliable with proven MTBF of over 10 years.

Service and maintenance

The CBME 80B 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.

Technical data

Range	0 to 7 600 m / 0 to 25 000 ft
Resolution	5 m / 10 ft, units selectable (high-res mode)
Accuracy	greater of ±10 m or ±1 % of height (std), or ±5 m / 20 ft (option, individual calibration) measured against hard target
Reporting interval	periodic (15 to 120 s), selectable; Polling (any interval)
Laser	InGaAs diode
Laser safety	eye safe Class 1M in accordance to IEC 60825-1
Operating temperature	−40 °C to +60 °C
Operating humidity	up to 100% (non condensing)
Wind speed	up to 55 m/s

Weight	15 kg (standalone)
Power supply	115 V alt 230 V AC, 45 to 65 Hz 12 V DC (option)
Power consumption	electronics 30 W, heater 200 W (when active)
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**

Integration

The CBME 80B includes a number of pre-defined telegram formats and built-in support for RS-232, RS-485 and FSK for easy installation and integration.

Options

- Window blower
- Solar shutter
- Local display
- Housing classification, IP66
- Colour: Military green
- Tilt
- Contamination detection

Accessories

- Graphic software (PC)
- Cloud Presentation Suite
- Digital display
- Demodulator