



The LIDAR-based cloud height sensor / ceilometer CHM 15k is prepared to work throughout the year and in any climate

- **Parameters measured**
Aerosol backscatter profile, cloud base height, cloud penetration depth, aerosol layer height, cloud cover, vertical visibility, Sky Condition Index
- **Measurement technology**
Optical (LIDAR)
- **Product highlights**
Measuring range up to 15 km (50,000 ft), optimized detection of several cloud layers, simple eye-safe operation, service-friendly modular device design, various data telegrams including raw data
- **Interfaces**
RS485, LAN, RS232 oder Modem V.21, V22
- **Article number**
8350.00, 8350.01 incl. 8350.MOD, 8350.10, 8350.03, 8350.BAT

The Lufft CHM 15k has a double-walled housing combined with integrated fan and automatic heating system. Thus it provides reliable protection against misting, precipitation, freezing or overheating.

Exact results due to high sensitivity!

Reliable and accurate results at any time of the day or night are ensured by the use of long-life laser sources, filters with narrow bandwidth and high-sensitivity photodetectors.

Technical Data

Ceilmeter CHM 15k „NIMBUS“



General	
Dimensions	500 x 500 x 1550 mm
Weight	70 kg (130 kg incl. packaging)
Temperature range	-40...+50 °C
Relative humidity	0...100 %
Wind	55 ms ⁻¹

Interfaces	
Standard interface	RS485, LAN
Optional interface	RS232 or Modem V.21, V.22, V.22bis
Communication	LAN Port: Web - Interface Serial Port: DataClient Software or standard terminal programs
Optional software	Viewer - Software for convenient visualizing measured results

Electrical parameters	
Power supply	230 VAC, ±10 %
Power consumption	250 W (Standard) 800 W (in maximum heating mode)
UPS functionality (opt.)	Internal backup battery for electronics, > 1 hrs

Operating safety	
Environmental conditions	ISO 10109 - 11
Laser protection class	1M, DIN EN 60825 - 1:2007
Protection level housing	IP65
EMV	EN 61326 - 1
Electrical safety	DIN EN 61010 - 1
Certifications	CE

Cloud height / aerosol profiles / visibility	
Measuring principle	optical (LIDAR)
Measuring range (Cloud base height)	5 m ... 15.000 m (16 ft ... 50.000 ft)
Accuracy (measured on hard target in 10 km distance)	±5 m (±16 ft)
Measurement resolution	5 m (16 ft)
Sampling rate	100 MHz
NetCDF raw data resolution	15 m (full range, compact file sizes); 5 m (5 m to 150 m range)
Measurement time	2 s ... 600 s (wählbar)
Targets	Aerosols, clouds
Quantities to be measured	CBH1, preset: 3 layers; maximum 9 layers; Cloud penetration depth; Cloud amount and sky condition index; Vertical visibility (VOR); Height of aerosol layer; Aerosol backscatter profiles;
Light source	Nd:YAG solid - state laser, wavelength 1064 nm