



Lufft CHM 15k Ceilometer, 0 - 9.32 mi Range, 115 VAC

Product #: 8350.10
USD Price: Contact Hach

The CHM15k ceilometer measures aerosol backscatter profiles and cloud bases up to 15 km height.

The unit has a solid state laser integrated and operates at 1064 nm, a wavelength where water absorption is not an issue. The detection unit is measuring in photoncounting mode.

The CHM15k belongs to an instrument class, which are also called micro pulse lidars (MPL). It is mainly used in the science market operated by met services, environmental agencies and research institutes.

The CHM15k is used whenever the whole tropospheric range is of interest." This particular model is designed for a 230 VAC power connection.

Strong signal quality

The sensor achieves excellent signal quality thanks to its stable wavelength and its Nd:YAG narrow-beam microchip laser operating in the 1064 nm range. In addition, its technology enables efficient daylight suppression and reduces temperature fluctuations to a minimum.

Continuous operation

The CHM 15k features a user-friendly design that enables unattended, continuous operation.

Multi-purpose

It is suitable both as a sophisticated aerosol research instrument and as part of a large measurement network.

Specifications

*Parameters Measured:	Lidar (optical, time of flight)
	Aerosol backscatter profile
Accuracy:	±16 ft (±5 m)
Battery Backup:	No
Cable Connection:	RS485: Open wires, LAN connector
Cable Length:	32.8 ft (10 m)
Cloud Detection Range:	50 - 50,000 ft (15 m - 15 km)
Communication:	ASCII-protocols, NetCDF data files, web-interface http, ftp mode
Compliance Certifications:	ISO 10109 - 11
	1M, IEC 60825-1:2014
Dimensions:	19.7 x 19.7 x 61 in (500 x 500 x 1550 mm)
DSL Modem:	No
Field-of-View:	0.45 mrad

Filter Bandwidth:	1 nm
Height above Absolute Altitude:	5000 m
Inputs:	No
Interface:	RS485 (ASCII communication)
	LAN (Web-Interface, (S-)FTP, NetTools)
	Optional: DSL modem, RS232 for service
IP Rating:	IP65
Light Source:	Nd: YAG solid state laser
Material Enclosures:	Aluminium
Measuring Range:	0 - 50,000 ft (0 - 15 km)
Number of Layers:	1 - 9 layer (programmable); 3 layer preset
Operating Frequency:	5 - 7 kHz
Power Consumption:	250 W (Standard)
	800 W (in maximum heating mode)
Power Supply:	115 VAC, ±10 %
Product highlights:	Cloud base height (CBH),
	Cloud penetration depth (CPD), Aerosol layer height (ALH) Cloud cover in octas (WMO 2700), Vertical visibility in m, Sky condition index
Pulse Energy:	7 µJ
Relative Humidity:	0 - 100 %
Resolution:	Time: 2 - 600 s
	Range: 16, 33, 49 ft
Temperature Range:	-40 - +131 °F (-40 - +55 °C)
UPS Functionality:	Internal backup battery for electronics #1 h (opt.)
Wavelength:	1064 nm
Weight:	154 lbs (287 lbs incl. Packaging) or 70 kg (130 kg incl. Packaging)
Wind Speed:	197 ft/s (60 m/s)