



The Lufft CHM Simulator simulates the cloud height for the ceilometer CHM 15k in order to check its measurement accuracy.

- **Product highlights**

The Lufft CHM Simulator is an on-site calibration equipment to check the measurement accuracy of the cloud height for the ceilometer CHM 15k

- **Article number**

8350.SIM, 8350.SIMc, 8350.SIMco

The simulator has to be deployed on the top of the ceilometer covering the laser inlet. One of the five LEDs receives the laser impulse emitted by the ceilometer and, after a certain time has passed, sends an optical signal back to the ceilometer simulating it via the 4 other LEDs.

The time span between receiving and sending the signal as well as the time of flight of the return signal going back to the ceilometer shall correlate with a signal of an actual cloud. The characteristics of this simulated cloud can be determined by using the included CHM Simulator Application. Using the app, which shall be installed on a standard android based tablet, the user can select the cloud height and depth according to its preference. The app communicates via Bluetooth with the CHM Simulator.

Furthermore, the strength of the d.c. light/background light can be chosen in order to check how the ceilometer can manage disturbances caused by background light. The results of this ceilometer-check can be read out directly at the ceilometer instrument. Some of the results are also given out by the app (laser frequency) or can be accessed via the embedded UMB protocol.

General

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Technical Data

CHM 15k Simulator for Cloud Height Simulation



Power supply	10 VDC...28 VDC on the sensor
Power input	Ca. 3 VA
Protection type	IP54
Dimensions	110 x 200 x 100 mm
Weight	1.7 kg
Storage conditions	
Admissible storage temperature	-40...70 °C
Operating rel. humidity	0...95 % RH (non - condensing)

Operating conditions

Permissible ambient temperature	-40...70 °C
Operating rel. humidity	0...100 % RH
Interface	RS485, 2 wire, half - duplex, bluetooth
Housing	Aluminium, plastic
Containing	CHM - Simulator, CHM Simulator adaptor frame, 10 m power cable incl. cig plug connector (optional: 24 V power supply), user manual
Software	CHM - Simulator App (available online at Google Play Store)