



**CAUTUS GEO**

surveying for safety



**CAUTUS**  
SNOW DEPTH 

## Cautus Snow Depth Monitor

Complete snow depth and weather station system

- » **Well-suited for challenging environments**
- » **Snow temperature throughout the whole snow profile**
- » **Measure snow depth and common weather parameters**
- » **Very low power consumption**
- » **Web data management**
- » **Automatic alerts & warnings**

The Cautus Snow Depth Monitor is a newly-developed snow depth measurement system that uses temperature sensors placed along a rod to determine the snow depth. The temperature sensors measure the temperature with high accuracy along the whole length of the rod and can therefore provide information on the snow depth, air temperature and snow temperature throughout the snow profile. The insulating properties of snow are used to determine the overall depth of snow.

The system is set up with the Cautus Logger, which was developed for use in outdoor environments without fixed power supply. The logger receives power from battery and solar panels and sends data to a server so that the data is available online in near real-time on Cautus Web, a module-based data management system that easily allows for system expansion with additional sensors such as a camera or weather station.

### Applications

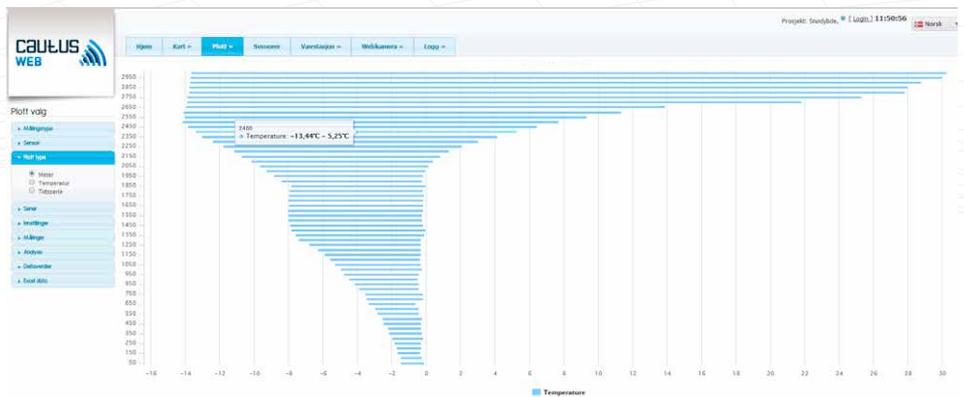
- » Snow- & avalanche research
- » Mountain roadways
- » Ski resorts
- » Cross-country tracks
- » On cabins and cabin roofs

The Cautus Snow Depth Monitor is placed either on a flat area or slope where the snow depth will be measured. The length of the measurement rod and distance between sensors is customizable. The standard length is 3000 mm with 50 mm between each sensor.

The data logger continuously sends measurements so that the snow depth and temperature profile are available in real-time on Cautus Web. Alerts and warnings can be configured to inform of new or total snow accumulation.

### SPECIFICATIONS

Length	1-3 m
Communication protocol	1-wire interface
Distance between temp sensors	50 mm standard, 25 mm min
Protection	IP65 for entire system
Measurement range	-40 til +85 °C
Accuracy per measurement point	+/-0,5 °C (from -10 to +85 °C)
Resolution	0,06 °C
Rod construction	Rigid aluminium rod
Rod dimensions	approx. 25 x 25 mm



Data presentation in Cautus Web. The plot shows variation in temperature in a 24-hour period and is used to calculate the snow depth.



Skap med  
- Logger  
- Batteri  
- Solcelle



Målestav

Temperatur-sensor

Festeanordning

System overview with available options



Installed systems with weather station. The logger is placed either in a cabinet on the mounting post or in a case on the ground.