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SDMS40

Multipoint Scanning Snowfall Sensor

Detects Onset of Snowfall and Snowmelt

Proven performance and field tested

Overview

The SDMS40 is a powerful and cost-effective 2D multipoint, laser-based snowfall sensor. In the past, multipoint laser-based snow depth sensors have typically been complex and costly, so the practical SDMS40 was developed to address those issues. Performance and reliability of the device have been proven with thorough testing of the sensor and its measurement method. (Read the white paper.) With the SDMS40, you can enjoy accurate data from a compact, automated, multipoint scanning laser snow depth sensor at a reasonable price.

The ability to quickly and reliably detect the onset of snowfall and snowmelt is a highly sought-after feature in a snow depth sensor, and the SDMS40 does not disappoint. It is one of a few laser sensor models available in the world that can reliably detect the onset of snowfall and snowmelt, and of all the models available, the SDMS40 is the most cost-effective.

Campbell Scientific prides itself on the high quality and accuracy of its products. We won't put our stamp of approval on anything that does not meet our expectations or the needs of our customers, and we want to ensure you can trust the quality and accuracy of the SDMS40 like you would trust any Campbell system. So we field tested the SDMS line of snow sensors over three Canadian winter seasons. It has proven itself to be practical, accurate, and of excellent quality.

Benefits and Features

- Detects the onset of snowfall or snowmelt quickly and reliably
- Proven performance by field tests over three winter seasons from 2013 to 2015
- Allows easy installation on poles, building walls, or any structure
- Can be used as an additional gauge to existing weather stations
- Compact and light gauge structure
- Less sensitive to ground conditions
- Filters out noise input caused by obstacles and abnormal situations
- Can operate on natural ground and different types of snow plates
- SDI-12 and RS-232 output

Specifications

Target Area Diameter	30 to 200 cm (11.8 to 78.7 in.) depending on installation height
Half Angle	6°
Snow Depth Measurement Method	Multipoint laser scanning
Number of Scanning Points	36
Measurement Range	< 10 m (< 32.8 ft)
Mounting Height	1 to 5 m (3.3 to 16.4 ft) above maximum expected snowfall depth; maximum distance to targets is < 10 m (< 32.8 ft)
Gauge Pointing Angle	0 to 45°
Accuracy	±3 mm
Resolution	1 mm
Operating Temperature Range	-40 to +50°C
Power Supply Requirements	12 to 15 Vdc, 2 A
Enclosure Classification	IP67
Laser Classification	2
RoHS	Compliant
Dimensions	12 x 28 x 10 cm (4.72 x 11.02 x 3.94 in.)
Weight	~1.8 kg (~3.97 lb)

Current Draw

Standby	50 mA
Active	250 mA
Heater	1300 mA

Interfaces

Communication Interfaces	RS-232, RS-485, SDI-12
Maximum Baud Rate	57.6 (RS-232 and RS-485)
Default Baud Rate	9600

For comprehensive details, visit: www.campbellsci.com/sdms40

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