

Precipitation



**Model 54000**  
**SNOdar Snow Depth Sensor**

# YOUNG Model 54000 SNOdar Snow Depth Sensor

The SNOdar is a highly accurate, reliable snow depth sensor designed to deliver real-time data—even in the middle of a snowstorm. Its mobile app makes setup effortless while providing instant access to live snow depth measurements from anywhere in the world.

SNOdar is one of the only snow depth sensors that utilizes LIDAR (Light Detection and Ranging) technology to provide accurate snow depth measurements. This high-precision method allows the SNOdar to create detailed, real-time snow depth data, ensuring reliable and efficient snow monitoring for a variety of applications.



The SNOdar can output data via RS-232 or SDI-12 to a range of commercially available data loggers. It also features an internal, non-volatile data logger capable of storing an entire season's worth of data, eliminating the need for separate data loggers for each sensor—resulting in significant cost savings during deployment. Its compact, lightweight design is built to withstand frigid temperatures while consuming very little energy.

## Features

- Real-time, accurate data during storms
- User-friendly app for setup and live data
- Bluetooth Low Energy (BLE) enabled
- Seasonal internal data logger
- Snow depth (compaction)
- New snowfall
- Seasonal snowfall
- Optional estimated SWE (Snow Water Equivalent)
- SDI-12 data logger & RS-232 output
- Sensor orientation monitoring
- Oblique or normal angle mounting on tower or structure

## Specifications

### Durability

**Input Voltage:** 6 - 24 Volts  
**Operating Temperature:** -40 - 60°C  
**Storage Temperature:** -40 - 85°C  
**Mechanical Vibration:** 20G  
**Mechanical Shock:** 500G  
**Ingress Protection:** IP67  
**Corrosion Resistance:** Type III: MIL-A-86

### Measurements

**Accuracy:** +/- 1 cm to 2 m  
                  +/- 2 cm to 4 m  
                  +/- 4 cm to 8 m  
**Resolution:** 1cm  
**Range:** 0.09 to 9 m  
**Measurement Interval:** 1 - 60 min

### Power Usage

**Current Consumption:** 0.04 - 0.26 amps  
**Power Consumption:** 0.42 - 3.24 watts  
**Avg Power Consumption:** 0.5 watts

### Dimensions

**Weight with Bracket:** 375 grams  
**Weight without Bracket:** 265 grams  
**Size:** 6.3 x 6.3 x 9.5 cm

### ESD Ratings

**Human-Body Model:** +/-2500V  
**Charged-Device Model:** +/-1000V

## Applications

- SNOTEL Snow Monitoring
- Stormboard Snow Measurement
- Avalanche Monitoring & Forecasting
- DOT Road Conditions
- Ski Resort Snow Monitoring
- Scientific Snow Monitoring
- Snow Management
- Solar Panel Control Systems

## Ordering Information

SNOdar Snow Depth Sensor ..... 54000



Complies with applicable CE directives.



**R.M. Young Company**  
2801 Aero Park Drive  
Traverse City, Michigan 49686 USA  
Tel: (231) 946-3980 Fax: (231) 946-4772  
Email: met.sales@youngusa.com  
Web: www.youngusa.com