

## 260-700 Ultrasonic Snow Depth Sensor

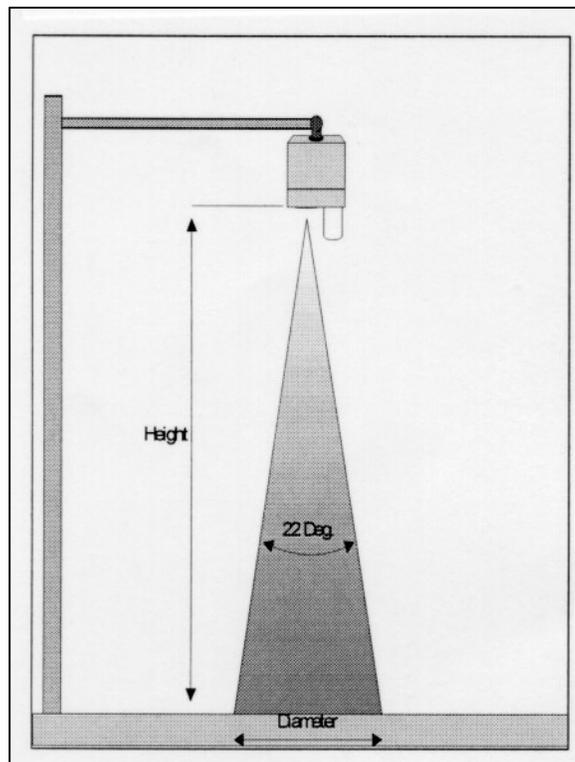
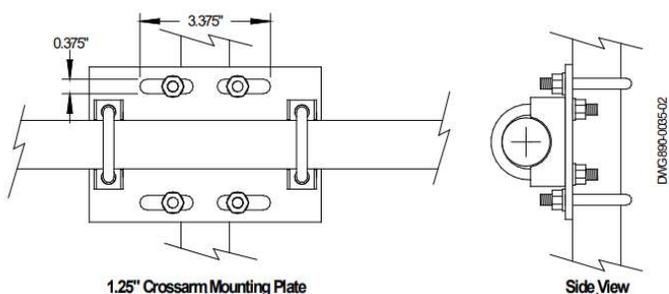
The **260-700 Ultrasonic Snow Depth Sensor** is an inexpensive solution for remotely measuring snow depth or water levels. The sensor works by measuring the time required for an ultrasonic pulse to travel to and from a target surface. An integrated temperature probe with solar radiation shield provides an air temperature measurement for properly compensating the distance measured. An embedded microcontroller calculates temperature compensated distance and performs error checking.



Both distance and air temperature are output as an analog signal between 0 to 2.5 Volts or 0 to 5 Volts. Measurements can be output digitally as serial ASCII. Specify analog or digital output at the time of order. Due to the simplified interface, the depth sensor can interface with any data logger or control system that can delay at least 3 seconds after powering up before measuring the output.

### Features

- Snow level or water level measurement
- Range 0.5 to 10 meters (1.6 to 32.8 feet)
- Beam angle ~22 degrees
- Optional mounting arm



### Ordering Information

260-700-2.5	Ultrasonic Snow Depth Sensor, Analog 0-2.5 V output, includes 25' cable
260-700-5	Ultrasonic Snow Depth Sensor, Analog 0-5.0 V output, includes 25' cable
260-700-D	Ultrasonic Snow Depth Sensor, Digital 1200 baud serial ASCII, includes 25' cable
260-700-C	Additional Signal Cable, per foot
260-700-TM	Tower Mounting Arm with 5' Horizontal Mast
260-700-TM2	Tower Mounting Arm with Two 3' Mast Sections

Analog Ultrasonic Snow Depth Sensor	260-700-2.5	260-700-5
Analog output	0 - 2.5 Vdc	0 - 5 Vdc
Scale factor, centimeters	500 cm/volt	250 cm/volt
Scale factor, inches	196.85 inches/volt	98.43 inches/volt
Air Temperature scale factor, Kelvin	200°K / volt	100°K / volt
Range	0.5 to 10 meters (1.6 to 32.8 feet)	
Range accuracy	1 cm or 0.4% distance to target	
Range resolution	3 mm (0.12 inches)	
Temperature range	-40°C to +70°C ( -40°F to +158°F )	
Temperature sensor accuracy	1°C, -40°C to +85°C	
Temperature sensor resolution	0.5 °C	
Beam angle	~22 degrees	
<b>Electrical</b>		
Power	+12 to +24 Vdc, 50 mA (maximum sample time 2.6 seconds)	
Cable	25 feet (7.6 meters). Maximum cable length 1000' (304 meters)	
<b>Environmental</b>		
Enclosure	Enclosure rating IP66	
Mounting	1/2" NPT female pipe coupling	
Operating temperature range	-40°C to +70°C ( -40°F to +158°F )	
<b>Shipping</b>		
Dimensions	3" x 3" x 5" (8 x 8 x 13 cm)	
Weight	1.70 lb (0.77 kg)	
Weight of additional cable (25')	0.55 lb (0.25 kg)	

Digital Ultrasonic Snow Depth Sensor	260-700-D
Serial output	RS232, 1200 baud (8N1), ASCII characters
Range	0.5 to 10 meters (1.6 to 32.8 feet)
Range accuracy	1 cm or 0.4% distance to target
Range resolution	3 mm (0.12 inches)
Temperature range	-40°C to +70°C ( -40°F to +158°F )
Temperature sensor accuracy	1°C, -40°C to +85°C
Temperature sensor resolution	0.5 °C
Beam angle	~22 degrees
<b>Electrical</b>	
Power	+12 to +24 Vdc, 50 mA (maximum sample time 2.6 seconds)
Cable	25 feet (7.6 meters). Maximum cable length 250' (76 meters)
<b>Environmental</b>	
Enclosure	Enclosure rating IP66
Mounting	1/2" NPT female pipe coupling
Operating temperature range	-40°C to +70°C ( -40°F to +158°F )
<b>Shipping</b>	
Dimensions	3" x 3" x 5" (8 x 8 x 13 cm)
Weight of sensor with 25' cable	1.70 lb (0.77 kg)
Weight of additional cable (25')	0.55 lb (0.25 kg)