Compact, reliable and cost-efficient - Accurate measurement of snow depth / snow height sensor SHM30 based on an opto-electronic distance sensor / laser rangefinder technology.

- **Parameters measured**
  Snow depth

- **Measurement technology**
  opto-electronic measuring technique with eye-safe laser sensor

- **Product highlights**
  Determination of snow depth over long distances, MTBF (meantime between failure) >40.000h, allows discrimination between snow and grass, very compact and weatherproof housing

- **Interfaces**
  RS232, RS422, analogue output

- **Article number**
  8365.10, 8365.11, 8365.20

Compact, reliable and cost-efficient. The SHM30 snow depth sensor reliably determines snow depths up to 10 meter within seconds and with millimeter precision. Based on an opto-electronic distance sensor emitting visible eye-safe laser light (laser rangefinder), the SHM 30 allows probing distances up to 30 meter to detect the surface level. Unlike snow depth sensors using ultrasonic methods, the laser distance measuring technique is independent of temperature changes. Even if the measuring process is impaired by precipitation, the SHM 30 reliably finds the snow surface due to its mode of operation. Further evaluation of the transmitted signal strength allows discrimination between snow and grass.

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IMPORTANT: Snow Depth Sensor SHM 30 is discontinued

Please check the alternative: Snow Depth Sensor SHM31

General	
Dimensions	302mmx130mmx234mm
Weight	3.3kg
Temperature range	-40...+50°C
Relative humidity	0...100%
Heating activity	<0°C programmable

Interfaces	
Data interfaces	RS232 or RS422 (selectable) and analog output
Interfaces modes RS232	2,4...38,4kBaud, 8N1 format
Analogue interface	3mA und 4...20mA
Operating modes	Polling, automatic telegram
Client software	Any terminal program
Electrical parameters	
Power consumption	0.5...1W (without heating), <12W [with heating (heating cycle 0...-30°C, at 24 VDC)] 24W
Operating voltage	10...30VDC (without heating), 15...24VDC (with heating)
Safety parameters	
Laser classifi cation	Laser Class 2 (IEC825-1/EN 60825)
Environmental conditions	ISO 10109-11
Protection type	IP65
EMV	EN 61326-1

Snow height	
Snow depth	0...10m
Distance to hard targets	0.1...30m without far field stray light protection on natural diffuse reflecting surfaces
Reproducibility	0.5mm on natural diffuse reflecting surfaces
Measuring accuracy	± 1mm on natural diffuse reflecting surfaces; offset corrected sensor 95% statistical spread
Measuring accuracy snow	±5mm 95% statistical spread
Progr. measuring interval	1...600s
Measurement time	10s

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