



The laser-based snow depth sensor Lufft SHM31 stands for millimeteraccurate snow level detection over long distances in all weather conditions without any maintenance, due to opto-electronic/laser based rangefinder technology.

Parameters measured Snow depth

Measurement technology

opto-electronic measuring technique (rangefinder; laser distance sensor) with eyesafe laser

Product highlights

Determination of snow depth over long distances, heating options allow high quality measurements in all weather conditions, simplified installation due to automatic inclination angle compensation

Interfaces

RS485 & RS232 with Modbus RTU, UMB, UMB-ASCII 2.0 & SDI12 protocol

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Millimeter-accurate snow levels in all weather conditions: The SHM 31 operates with a visible, easy-to-measure measuring beam. The snow depth is given up to 15 meters within seconds, millimeter-accurate and reliable. Various heating functions significantly extend the lifetime of the laser diode and allow high-quality measurement data in all weather conditions. Regular maintenance becomes redundant with the SHM 31. A very robust









Technical Data Snow Depth Sensor SHM31



housing and an elaborate operation principle allows almost no maintenance work throughout the lifetime of the sensor.

General	
Dimensions (LxWxH)	302 × 130 × 234 mm
Weight	2.35 kg
Operating parameters	
Temperature range	-40 +50 °C
Relative humidity	0 100%

Measuring parameters	
Snow Depth	0 15 m
Mounting distance to surface	0.1 16 m
Accuracy (snow depth)2	± (5 mm + 0.06 %)
Repeatability	0.6 mm
Intermediate precision/	5 mm
reproducibility	

Data-interfaces	
RS485	Modbus RTU , ASCII, UMB protocol
RS232	ASCII protocol
SDI-12	SDI-12 protocol
Data transfer mode	Polling (UMB, ASCII, SDI-12); Auto telegram output (ASCII)

Electrical parameters	
typ. power consumption at	without heater: approx. 0.7 W; with window heating: approx. 3.4
24VDC and 10 s measurement	W
Proversupply	12 or 24 VDC, tolerance +/- 15%
Maximum power	18 W
consumption(connecting power	
with heater on)	

Safety	
Laser classification	Laser class 2 (IEC 60825-1:2014);
	complies with 21 CFR 1040.10 except for deviations pursuant to
	Laser Notice No. 50, dated June 24, 2007
Protection class	IP68
EMC	EN 61326-1:2012 (industrial standard)
EC	2014/30/EU & RoHS 2011/65/EU









