An optoelectronic laser sensor for determining snow depths. Compact, reliable and cost-efficient: The snow depth sensor reliably determines snow depths within a measuring range of up to 10 meter within seconds and with millimeter precision.
Lufft SHM 30 Snow Depth Sensor
Made in Germany by Jenoptik

Compact, reliable and cost-efficient
The SHM 30 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, 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.

Benefits
• Determination of snow depth over long distances using opto-electronic measuring technique
• MTBF (meantime between failure) >40.000h (duty cycle 30% 3 measurements/min)
The build in heater does mainly keep the build in laser diode in specs to ensure a long lifetime
• Very compact and weatherproof housing
• Efficient background light suppression
• Allows discrimination between snow and grass

Applications
• Weather service
• Traffic and aviation safety, road surveillance
• Winter sport areas
• Water & energy related applications

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<table>
<thead>
<tr>
<th>Lufft SHM 30 Snow Depth Sensor</th>
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<td>A compact laser sensor with RS232, 10 m cable</td>
<td>8365.10</td>
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<td>With RS232 and ext. heat off, 10 m cable</td>
<td>8365.11</td>
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<td>With RS422, 10 m cable</td>
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<td>With RS422, 5 m cable</td>
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Technical data
- Dimensions (LxBxH): 302 mm x 130 mm x 234 mm
- Weight: approx. 3.3 kg

Operating parameters
- Temperature range: -40°C ... +50°C
- Relative humidity: 0% ... 100%
- Heating activity: < 0 °C (programmable)

Measuring parameter
- Snow depth: 0 ... 10 m
- Distance to hard targets: 0.1 ... 30 m
- Precision / reproducibility: ≤ 0.5 mm
- Measuring accuracy: ± 1 mm
- Measuring accuracy snow: ± 5 mm
- Programmable measuring interval: 1 s ... 600 s
- Time to measure: ≤ 10 s

 Interfaces
- Data interfaces: RS232, analog output
- Interface modes: RS 232 analog
- 2,4 ... 38,4 kBaud, format 8N1
- 3 mA und 4 ... 20 mA
- Operating modes: Polling, automatic telegram
- Client software: Any terminal program

Electrical parameters
- Power consumption: 0.5...1W (without heating) <12W (with heating) [5]... 24W
- Power supply: 10...30VDC (without heating)
- 15...24VDC (with heating)

Safety parameters
- Laser classification: Laser Class 2 (IEC825-1/EN 60825)
- Environmental conditions: ISO 10109-11
- Protection class: IP65
- EMV: EN 61326-1

Accessories
- Mounting clamp, steel, up to 80 mm Ø | 8365.608-11X
- Mounting clamp, steel, up to 300 mm Ø | 8365.609-11
- Mounting clamp, steel, up to 72 mm Ø | 8365.610-11
- Connecting cable 10m | 8365.610-14
- Connecting cable 20m | 8365.611-14
- Connecting cable 5m | 8365.612-14

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1) without far field stray light protection
2) on natural diffuse reflecting surfaces
3) offset corrected sensor
4) 95% statistical spread
5) heating cycle 0 ... -30 °C, at 24 VDC

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