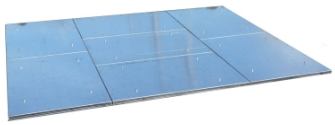

Snow Scales SSG-2

Continuous measurement of the snow-water-equivalent (SWE)

The snow scales SSG-2 is a measuring device, which measures the snow water equivalent (SWE) of the snow pack with a high level of precision and reliability. The installation is quick and easy. The fact that there is no anti-freeze needed makes the system environmentally friendly.

Features and advantages

- Environmentally friendly: no antifreeze liquid needed
- Minimization of the ice bridging effects through an extra-large measuring surface
- Perforated plates: optimal thermal flow between ground and sensor and melt water run-off
- Stable, durable aluminium construction
- No preparation of the measuring site is necessary
- Easy system integration
- Measuring range: 1,000 / 2,000 / 3,000 mm SWE
- Many interfaces: SDI-12, RS-485 (ASCII and MODBUS, 4-20mA

Fields of application

The snow water equivalent serves as an important parameter in monitoring snow and rainfall and in assessing snow quantities as well as for flood protection or water management. Various environmental authorities, weather services, hydrologists and water management use the snow scales accordingly. In comparison with the commonly used snow pillow, the snow scales does not use antifreeze and therefore can be installed in natural reserves without any risk.

Implementation

The working principle of the SSG-2 is based on the measuring principle of load cells. The sensor consists of seven perforated panels of a size of 80 x 120 cm each. This makes a total measuring surface of 2.8 x 2.4 m. The perforation of the panels prevents water accumulation, minimizes the difference in temperature between the scales and the ground and promotes uniform melting. The measurement is carried out on the centre plate, the surrounding plates serve as a stabilizing zone in order to compensate stress in the snow pack as well as to counteract the problem of ice bridges through the large measuring surface. The SSG-2 system provides more accurate measuring data compared to the snow pillow during periods of snow melt. Furthermore, the modular design of the snow scale facilitates quick and easy assembly on level ground up to an inclination of five degrees.

Technical details

- **Measuring range** 1,000 / 2,000 / 3,000 mm SWE

- **Resolution** 0.1 kg/m² ? 0,1 mm SWE
- **Accuracy** 0.3 % (FS)
- **Measuring surface** 6.72 m²
- **Total weight** 130 kg
- **Dimensions** 2800 x 2400 x 103 (L x W x H mm)
- **Protection** IP 68
- **Power supply** 10 ... 30 VDC
- **Power input** max. 70 mA
- **Operating temperature** - 40 ... +80 °C
- **Maximal inclination** 5°
- **Output** SDI-12, RS-485 (ASCII and MODBUS), 4 ... 20 mA
- **Others** improved lightening protection