CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

CS725

Snow Water Equivalent Sensor

Innovative technology

Non-contact measurement of Snow Water Equivalent (SWE)

Overview

The CS725 measures snow water equivalent (SWE) by passively detecting the change in naturally occuring electromagnetic energy from the ground after it passes through snow cover. The measurement area of the CS725 is 50-100 square metres, an excellent replacement sensor for the traditional snow pillow and snow scale. The sensor is powered using 12VDC and can either operate in a standalone mode, or be easily interfaced to a datalogger. With the addition of a wireless communication option, SWE values can be transmitted in real-time from remote sites.

Benefits and Features

- Does not cause the melt of light snow (as with a snow pillow)
- Greatly reduces need for site visits
- Not affected by snow bridging
- No site preparation or earthworks required for set-up
- 5-10 times the measurement area of the nearest competitor
- No fencing required (sensor typically mounted 3m above surface)
- Will not cause snow drifting
- 7 year maintenance free
- No antifreeze chemicals used (i.e. glycol)

Specifications

- Measurement Range: 600 mm Maximum Water Equivalent
- Accuracy: ±15 mm from 0 to 300 mm
  ±15% from 300 to 600 mm
- Resolution: 1 mm
- Coverage Beam Angle: 60°
- Operating Temperature: -40° to +40°C
- Power Requirements: 11-15 Volts DC
- Power Consumption: 180 mA
- Output format: RS-232 (1200-115200 BAUD)
- Maximum Cable Length: 30 m (9600 BAUD or less)
- Cable Type: 4 conductor, 2-twisted pair, 22 AWG, Santoprene jacket
- Dimensions
  Length: 62 cm
  Diameter: 12.7 cm
- Weight
  Main body: 9 kg (20 lbs)
  Collimator (Optional): 25 kg (55 lbs)
  Total: 34 kg (75 lbs)