CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

CS230

Temperature Profiler

Customizable

Rugged, digital temperature measurements

More info: **780.454.2505**
campbellsci.ca/cs230

Overview

The CS230 temperature profiler uses SDI-12 digital technology for simple integration and reliability. The CS230 consists of a rigid probe assembly and up to 4 optional external temperature probes. The rigid probe assembly maintains the precise position of the temperature points within the profile, while protecting the temperature sensors in all mediums for the long-term.

The CS230 is suited for a wide variety of applications and environments. The completely sealed probe assembly and external probes permits the CS230 to be used in roadbeds, soils, and water (snow & ice).

Examples of some applications include spring load adjustment, frost & permafrost monitoring, soil, and water or snowpack temperature profiling.

Benefits and Features

- Customizable measurement spacing to suit any number of applications
- Available external probes simplify installation for roadbed applications
- One SDI-12 channel is used to connect all temperature sensors
- Low Power – suitable for remote applications
- No calibration required
- Serial number & installation depth data for each location stored onboard each sensor
- Excellent long-term stability of measurements
- Does not require multiplexing for large numbers of measurement points
- SGB3 protects against electrical surge damage

Specifications

- Operating range: –55°C to +85°C
- Accuracy (includes lifetime drift)
  - Typical: ±0.2°C (–40°C to +85°C)
  - Worstcase: ±0.4°C (–40°C to +85°C); ±0.5°C (–55°C to -40°C)
- Resolution: 0.0078°C
- Communications: SDI-12
- Maximum length: 3.0 m (118 in.)
- Probe Diameter: 2.13cm (0.84")
- Maximum cable length: 152 m (500 ft)
- Maximum sensors per probe: 32
- Minimum spacing: 5 cm (1.97")
- Optional external probes: 4 max
- Standard External probe length: 45 cm (18")
- Supply voltage: 9 to 28 Vdc
- Current consumption:
  - Quiescent current draw per sensor: 1.0 mA (max)
  - Active current draw: 20 mA + (# sensors * 1.0 mA)
- Warm up time on power up: 10 seconds
- Lifetime min/max temperature recording
- User resettable min/max temperature recording
- Automatic 1 second temperature update