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WHEN MEASUREMENTS MATTER

CRS451V

Stainless-Steel Vented Water-Level Recording Sensor

Pressure Transducer Combined with a Recorder

High resolution and accuracy

Overview

The CRS451V consists of a submersible water-level and water-temperature sensor with its own time clock and memory to store the collected data—in a compact stainless-steel case. This datalogging capability frees users to place the sensor in remote sites and let it collect data for long periods. HydroSci software is included and elegantly supports test setup, data retrieval, and data display. Long battery life and rugged construction mean you can trust the CRS451V to collect important data. Low cost and ease of use make it a good choice in a variety of applications. The CRS456V is the same as this, but with a titanium case.

Benefits and Features

- Sensors and data-collection features in one instrument case
- Rugged stainless-steel case protects piezoresistive sensor
- Quality construction ensures product reliability
- Fully temperature-compensated
- Fast scan rate
- Large data-storage capacity
- Long battery life
- Easy-to-use software

Detailed Description

The CRS451V has several pressure range options.

HydroSci software is available for download. This software simplifies the process of configuring the CRS451V. Users can configure the CRS451V to monitor surface water, ground water, or a standard pump test.

HydroSci software will display the data in tabular or graphical formats.

Specifications

Measurement Time	< 1 s
Output Options	micro USB

Internal Data Collection Memory	4 MB
Logging/Scanning Modes	Standard, Delta, Wave, Logarithmic
Resolution	0.0035% FS
Dry Storage Temperature Range	-10° to +80°C WARNING: Sensor could be damaged if encased in frozen ice.
Operating Temperature Range	0° to 60°C WARNING: Sensor could be damaged if encased in frozen ice.
Overpressure	2 x pressure range
Power Requirements	Internal user-replaceable lithium battery
Battery Life	5 years (when logging interval is once per hour; approximately 40,000 measurements)
Body Material	316L stainless steel
Water-Level Accuracy	±0.1% full-scale-range TEB Includes the combined errors due to nonlinearity, hysteresis, nonrepeatability, and thermal effects over the compensated temperature range, per ISA S51.1.

Temperature Accuracy	±0.2°C
Diameter	2.22 cm (0.875 in.)
Length	22.23 cm (8.75 in.)
Weight	230 g (0.51 lb)

Power Consumption

Quiescent	< 80 µA
Measurement/ Communication	4 mA (1 s measurement)

Measurement Ranges at Fresh Water Depths

0 to 5.1 m (16.7 ft)	0 to 7.25 psi 0 to 50 kPa
0 to 10.2 m (33.4 ft)	0 to 14.5 psi 0 to 100 kPa
0 to 20.4 m (67 ft)	0 to 29 psi 0 to 200 kPa
0 to 50.9 m (167 ft)	0 to 72.5 psi 0 to 500 kPa
0 to 102 m (334.5 ft)	0 to 145 psi 0 to 1000 kPa

For comprehensive details, visit: **www.campbellsci.com.au/crs451v**

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