



Compact Enclosure Monitoring Sensor

Monitor temperature, relative humidity, and door activity

Overview

The CS211 is a low-power, smart sensor designed to monitor temperature and humidity levels inside enclosures. The sensor features an optical door switch to detect door openings and closings, and a multifunctional button that recognizes short, long, and double presses for user-defined actions. Additionally, the CS211 includes an LED indicator to

signal enclosure wetness and when desiccant needs to be replaced.

This DIN rail-mountable sensor is compatible with any SDI-12 data logger, providing a reliable way to monitor your equipment and maintain your measurement accuracy.

Benefits and Features

- › Reports the enclosure state, which emulates a desiccant indicator card and can be measured remotely via a data logger
- › Detects door opening and closing events without the need for additional hardware
- › Has a multifunctional button to trigger customizable data logger functions
- › Offers an SDI-12 direct connection to a Campbell Scientific data logger

Technical Description

The CS211 comes with three 61 cm (24 in.) long cables to connect from the screw terminal of the CS211 to the data logger.

The CS211 uses an optical sensor and the LED to detect if the enclosure door is open or closed. A combination of ambient light and reflected light measurements are used to determine the state of the door. To enable this feature, install the included reflective tape inside the enclosure door, such

that it is directly in front of the sensor when the door is closed.

In addition to direct temperature and humidity measurements, the CS211 calculates a wetness ratio and enclosure state to provide insights into the internal conditions of the enclosure over the past 24 hours (or since the device was last powered up). The LED will flash every 5 seconds to indicate the status.

Specifications

Operating Temperature -40° to +60°C

Range



Operating Relative Humidity Range	0 to 100% RH (non-condensing)
Startup Time	3 s
Cable Length	61 cm (24 in.) each
Dimensions	80 x 59 x 15 mm (3.15 x 2.32 x 0.59 in.)
Weight	40 g (1.41 oz)

Measurement Uncertainty

Temperature	±0.4°C (-40° to +60°C)
Relative Humidity	±3% RH (10 to 90% RH) at 25°C

Power Supply

Voltage	7 to 28 Vdc
Average Current	< 100uA
Peak Current	< 30mA

For comprehensive details, visit: www.campbellsci.eu/cs211



80 Hathern Road, Shepshed, LE12 9GX UK | +(0)1509 828888 | sales@campbellsci.co.uk | www.campbellsci.eu
AUSTRALIA | BRAZIL | CANADA | CHINA | COSTA RICA | FRANCE | GERMANY | INDIA | SOUTH AFRICA | SPAIN | THAILAND | [UK](#) | USA

© 2025 Campbell Scientific, Ltd. | 05/29/2025