

SensorData Sigfox

Sigfox Data-Logger with SDI-12, I2C, Digital Inputs, Analogue Inputs, GPS, ultra-long battery life, in a waterproof housing



enabled by  sigfox



APPLICATIONS



Soil moisture probes



Temperature / cold-chain



Asset location



Tank levels



Door open / close



Meter pulse counting

SensorData is a battery-powered data communicator that interfaces to a range of sensors, GPS, inputs and outputs, and uploads data via the Sigfox network. Great for agriculture and remote sensor monitoring applications

FEATURES

- 3D accelerometer and GPS for location
- SDI-12 interface to soil moisture probes, temperature, EC and others
- I2C interface for a wide range of sensors including: Temperature, Humidity, Vibration, CO2 gas and many others
- 3 x Digital Inputs
- 2 x Analogue Inputs
- Configuration via USB cable and over-the-air downlink messages

MECHANICAL FEATURES

Low-profile IP67 rugged housing	The IP67 rated housing is made of sturdy ABS/Polycarbonate plastic to survive bumps and knocks and to survive many years in the sun and weather. It is low-profile and caters for a number of cable glands to allow for waterproof cable entry to the housing. The housing screws together for easy assembly, and has convenient mounting tabs.
Operating temperature	-30°C to +65°C For operation in extreme temperatures the device must be fitted with Lithium batteries
Dimensions	155mm x 130mm x 40mm
Weight	250 grams without batteries

INTERFACES

SDI-12	This interface is commonly used in agricultural sensors and measurement devices for soil moisture probes, temperature, electrical conductivity (EC) of soils, water levels / pressures, other SDI-12 probes and sensors
I2C Interface	I2C (inter-IC communications) is an interface commonly used in sensor modules. This allows the SensorData to talk to a wide range of sensors including: temperature, humidity, vibration, CO2 gas and many others (speak to Digital Matter about sensor support)
Digital Inputs	3 x digital inputs (2 with low-power pulse counting)
Analog Inputs	2 x analog inputs reading 0V to 30V with auto-ranging Built-in battery voltage monitoring

SPECIFICATIONS

Sigfox device	The Sigfox network allows the device to communicate over long range and have long battery life. RCZ1, RCZ2 and RCZ4 options available.
External antenna	The external ISM band antenna provides for maximum link budget with the flexibility to install a high-gain antenna if needed. Especially important for long range in rural applications.
Power (4-6V)	The SensorData is ultra-low power and is designed to run off a set of 4 x "C" cell Alkaline batteries for a full season. This includes powering the sensors and SDI-12 probes. The off-the-shelf batteries are low cost and readily available. It can also be powered by a USB 5V wall socket if permanently installed in a location with power.
Switched Sensor Power (6V or 12V)	Used to control the battery power to external sensors and peripherals. Load limited and short circuit protected. 12V capable boost is essential to supply SDI-12 sensors, especially over long cable runs.
3.3V Switched Power	Used to control the 3.3V power to external sensors and peripherals. Load limited and short circuit protected.
GPS	The optional GPS module allows the SensorData to periodically update its location and time. This is very handy to know the exact position of your sensors, and to obtain an accurate time update.
3D Accelerometer	Used in combination with the GPS to provide low power tracking assets.
Configuration	Via USB cable for firmware updates Via over the Air (OTA) downlink messages for configuration
Test Button	Convenient to test installation and wiring.
Status LED	Easy visual feedback in the field for testing