



## FEATURES



High-precision GPS/GLONASS tracking device



2 x Analog Inputs, 2 x Digital Inputs



I<sup>2</sup>C Sensor Interface



Flexible Power Options – 3 x AA Batteries with up to 5 years battery life or wired to permanent power



Weatherproof and ultra-rugged IP67 Housing with compact and ergonomic design

# SensorNode LoRaWAN®

ALL 868MHZ & 915MHZ LORAWAN® REGIONS SUPPORTED

## OVERVIEW

Rugged and feature-rich LoRaWAN® datalogger with customizable inputs/outputs and I<sup>2</sup>C sensor interface for asset and sensor monitoring applications.

## APPLICATIONS



Sensor Monitoring



Tank Level Monitoring



Pulse Counting

## CONNECTIVITY

LoRaWAN®	Highly sensitive radio receiver available in 868MHz and 915MHz versions for global LoRaWAN® connectivity. Internal antenna.
LoRaWAN® REGIONS	AU915 AS923 EU868 IN865 KR920 RU864 US915

## BATTERIES

USER-REPLACEABLE BATTERIES	3 x AA
BATTERY LIFE	Up to 5 years of battery life at once-daily heartbeats / 2 year battery life at once hourly heartbeats.
SUPPORTED BATTERY TYPES	Alkaline Lithium (LiFeS2) - recommended

## LOCATION

MODULE	uBlox SAM8-M8Q GP
CONSTELLATION	Concurrent GPS / GLONASS
CHANNELS	72 Channel High Sensitivity Receiver
TRACKING SENSITIVITY	-165dBm tracking performance
LOW NOISE AMPLIFIER	GPS signals are boosted by a unique low-noise amplifier (LNA) allowing operation where other units fail.

## POWER

INPUT VOLTAGE	Flexible Power Options: 4-6V DC (max) 3 x AA Cell Battery holder fitted. Screw terminals for line power.
SLEEP CURRENT	<10uA* *Average current in lowest power configuration

## MECHANICS/DESIGN

DIMENSIONS	L 135 x W 90 x H 35 mm
WEIGHT	218g
HOUSING	ABS Polycarbonate Plastic
IP RATING	IP67 rated housing ensures device can withstand fine dust, high-pressure spray, submersion for 30 mins in 1m of water, and extreme temperatures.
OPERATING TEMPERATURE	-20°C to +60°C
INSTALLATION	Compact and Concealable. Multiple installation options for covertly and easily securing the device to assets with screws, bolts, cable ties, rivets, and more. Caters for a number of cable glands (2 fitted as standard) to allow for waterproof cable entry to the housing.
GPS ANTENNA	Internal
DIAGNOSTIC LED	Diagnostic LED signifies operation status.

## INTERFACES

ANALOG INPUTS	2 x 0-30V Analog Inputs. Auto Ranging, 12-bit ADC 0-5V range: 1.22mV precision 0-30V range: 7.32mV precision
DIGITAL INPUTS	2 x Digital Inputs with configurable pull-up/down 0-48V DC input range On/Off thresholds: Pull-up enabled: low at 0.8V, high at 1.0V Pull-down enabled: low at 2.0V, high at 2.4V Can be used for pulse counting.
I <sup>2</sup> C	I <sup>2</sup> C (inter-IC communications) is an interface commonly used in sensor modules.
SWITCHED POWER OUT	Used to control the 3.3V power to external sensors and peripherals. Load limited and short circuit protected. Can be toggled via downlink

## SMARTS

ENVIRONMENTAL MONITORING	Interface with a range of sensors such as temperature, humidity, moisture, depth, and more.
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## DEVICE MANAGEMENT

FLEXIBLE CONFIGURATION	Configure sensors and polling rate.
CONFIGURATION APP	Manage device firmware updates and parameters via a USB configuration cable and app. Some parameters can be changed via downlink.

## INTEGRATION

THIRD-PARTY INTEGRATION	Easy integration with comprehensive documentation and a flexible and open payload format.
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## SECURITY

DATA SECURITY	LoRaWAN networks use AES-128 Encryption so your data is protected
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## WARRANTY

MANUFACTURER'S WARRANTY	One year manufacturer's warranty.
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## CERTIFICATIONS

Please contact us for a full list of compliance specifications and documentation for your region.	ACMA (DoC), CE (Doc)
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# SensorNode LoRaWAN®