digital matter

FEATURES

- High-precision GPS/GLONASS tracking device
- 1 x Analog Inputs, 2 x Digital Inputs
- SD1-12, I²C Sensor Interfaces
- Switched Power Out, Switched Sensor Power Interfaces
- Flexible Power Options – 4 x C Batteries or wired to permanent power
- Weatherproof and ultra-rugged IP67 Housing with compact and ergonomic design

SensorData LoRaWAN®

ALL 868MHZ & 915MHZ LORAWAN® REGIONS SUPPORTED

OVERVIEW

Rugged and feature-rich LoRaWAN® GPS and datalogger with customizable inputs/outputs, SD1-12, I²C Sensor Interfaces for asset tracking, agtech, and sensor monitoring applications.

APPLICATIONS

Sensor Monitoring

Soil Moisture Monitoring

Tank level Monitoring

Pulse Counting

DATASHEET

View more devices at www.digitalmatter.com

CONNECTIVITY

LoRaWAN®	Highly sensitive radio receiver available in 868MHz and 915MHz versions for global LoRaWAN® connectivity. External SMA connector fitted and elbow antenna supplied as standard. A high gain antenna can be sourced and fitted if desired.
LoRaWAN® REGIONS	AU915 AS923 EU868 IN865 KR920 RU864 US915

BATTERIES

USER-REPLACEABLE BATTERIES	4 x C
SUPPORTED BATTERY TYPES	Alkaline

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) 4 x C Cell Battery holder fitted. Screw terminals for line power.
SLEEP CURRENT	<10uA* *Average current in lowest power configuration

MECHANICS/DESIGN

DIMENSIONS	L 183 x W 145 x H 40 mm
WEIGHT	579g
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.
INSTALLATION	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.
OPERATING TEMPERATURE	-20°C to +60°C
GPS ANTENNA	Internal
DIAGNOSTIC LED	Diagnostic LED signifies operation status.

INTERFACES

ANALOG INPUTS	1 x 0-30V Analog Input, 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.
I²C	I²C (inter-IC communications) is an interface commonly used in sensor modules.
SDI-12	Features SDI-12 , 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.
SWITCHED POWER OUT	Used to control the 3.3V power to external sensors and peripherals. Load limited and short circuit protected.
SWITCHED SENSOR POWER	Sensor Power (Vout) Used to control the battery power to external sensors and peripherals. Load limited and short circuit protected. 6V or boosted 12V supply (configurable via jumper on PCB)

SMARTS

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

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.

SECURITY

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

WARRANTY

MANUFACTURER'S WARRANTY	One year manufacturer's warranty.

CERTIFICATIONS

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

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