

EWS Switch

Environmental IoT Device.



Environment • Water • Geotechnical • Data



EWS Switch Environmental IoT Device

Overview.

The **EWS Switch** presents a powerful yet compact multi-communication enabled IoT device designed specifically for remote environmental monitoring. The name Switch is derived from the ability to interchange between Satellite and 4G LTE communication types allowing important data to be logged and reliably transmitted from anywhere.

The versatile device allows connection to all standard sensor types offering the ability to use across a wide variety of monitoring applications. The ease of use means that field installations can be completed in a fraction of the time of other systems offering significant cost savings and minimising risk by reducing time in the field.



Features.

- Multi-Communications options; Send data via Satellite (Iridium) or 4G LTE/NBLoT (MQTT)
- Reads SDI12, Modbus485, 4-20mA, Pulse sensor protocols.
- Relay out.
- Internal rechargeable battery pack or long-life non-rechargeable options.
- Input for external battery pack or direct to solar (Internal solar regulator).
- Ultra-Low power draw with internal battery backup.
- Configure using Bluetooth mobile app (available on Apple and Android).
- Remotely change settings with two-way communications including via Iridium.
- Compact form factor 66mm x 43mm x 126mm.
- Rugged and robust for harsh environments.
- Out-of-Cycle alarm transmission capable.
- Encoding scheme for compression of data packet size.
- Automatic data upload directly to Orion Cloud.
- Internal storage of up to 256,000 events.



Benefits.

- Connects to all standard environmental and geotechnical sensors.
- Extremely versatile for a range of remote monitoring applications.
- Compact and discreet, reducing installation time and footprint.
- Designed and Manufactured in Australia.
- Rugged and robust - designed for harsh remote environments.
- Plug and play setup on-site.
- Very straightforward and scalable for fast deployments and large monitoring roll outs.
- Programmable and powerful for more complex monitoring applications.
- Perfect for new and retrofit instrumentation projects.



Specifications.

Physical property

Dimensions (W x H x D)	Rechargeable - Approx 66 x 126 x 43 mm
	Non - rechargeable - Approx 66 x 126 x 60 mm
	Cable length from housing - Approx 400 mm

Body weight	Without battery approx 200g
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Waterproof level	IP67 rating
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Operating environment

Temperature (1, 2)	-20 to 65 °C	Storage (Without battery) -40 to 65 °C
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Humidity	5 to 60% RH
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Power source

Internal power (3)	2x Rechargeable 18650 battery / Suggested model: ICR18650-26JM
	1x Non-rechargeable (D cell) battery / Suggested model: ER34615M (LiSOCL2)

External power	12 VDC to 24 VDC / 1 A
	Battery or Solar power with M8 connector

Input Options

Function / interface	RS485 Modbus RTU x1	Baud rate 4800 - 115200 / Parity (N, E, O)
		12 V / 0.26 A supply with adjustable ON period
	4-20 mA Current loop x2*	+/- 0.5% Full Scale
	Pulse counter x2*	Dry contact
		Frequency 1 to 500 Hz
	SDI-12 x1	Version 1.4
Relay contact x1*	12V / 0.26 A	

Connectivity

USB	1x Micro USB
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Wireless	BlueTooth
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System

Clock	RTC	Accuracy 70 ppm (20 ppm at 25 °C)
	Network time Sync support	

Display	LEDs indicating status
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Configuration	Remotely change setting with two-way communications established via an application gateway
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Logging

Number of channels	60
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Reading interval	sec/min/hr	Max. 24:00:00
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Memory	4MB / 256,000 Events (Non-volatile-Log)
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Software	EWS Logger V00.01.137 or higher	Compatible with Windows 10
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File format	.csv
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Specifications.

Built-in sensor / function

Internal battery voltage Yes

External voltage supply Yes

Temperature Yes

Radio signal Yes

GPS tracking Optional

Barometer Optional

Pressure	Range	10 to 1200 mbar
	Accuracy 25 C, 750 mbar	- +/-1.5 mbar
Temperature	Range	- 40 to 85 °C
	Accuracy	- +/- 0.8°C

Network communication

Iridium Protocols Short Burst Data

Coverage Worldwide

4G Cellular LTE-M/NB-IOT Protocols MQTT

Network support Telstra (Australia)

Most major networks globally

Coverage 4 million Sqr km

Antenna type

Built-in antenna Yes

External antenna Optional

Specifications subject to change without notice.

Contact us

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