

# 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 L TE.
- 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 45mm x 55mm x 720mm.
- 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 260,000 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 - deigned 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.

## Mechanical

<b>Size</b>	Width 55mm	Length 120mm	Height 45mm
<b>Weight</b>	200g		

## Environmental

<b>Operating Temperature</b>	-20 °C to 60 °C
<b>Storage Temperature</b>	-40 °C to 65 °C
<b>Humidity</b>	5 to 95% Rel

## Power

### External Power Supply Input

Input Voltage	12	24V
Input Current	700mA	

### Internal Battery (Rechargeable)

Chemistry	Lion		
Terminal Voltage	6.8	7.8	8.4V
Capacity	1.8/4.8 Ahr		

### Internal Battery (Non-Rechargeable)

Chemistry	LiMnO2		
Terminal Voltage	6.8	7.8	8.4V
Capacity	4.8 Ahr		

### Sensor Power Output

Output Voltage	11	12	13V
Output Current	500 mA		

### Digital Output

Output Voltage	11	12	13
Output Current	500 mA		

## Storage

### Non-volatile-Log

Size	4MB
Events	256000 Events

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# Specifications.

## Clock

### RTC

Accuracy	-10 to 70°C	20	70ppm
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### Network Time Sync Support

Supported Networks	Iridium	Cellular
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## External Sensor Inputs

### Serial - RS485 Modbus

#### RTU

Baud Rate	300	230400 Baud
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Parity	N/E/O
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### Serial - SDI12

Analogue - 4-20mA	(2)
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### Current Loop

Accuracy	0.5 %f.s
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Digital - Pulse counter	(2)
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Input Voltage	1	5V
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Frequency	3 kHz
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## Built-In Sensor Channels

### Barometer - Pressure

Range	10	1200 mbar
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Accuracy	25° C, 750 mba	-1.5	+1.5 mbar
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### Barometer - Temperature

Range	-40	85 ° C
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Accuracy	-0.8	+0.8 ° C
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### Battery Voltage

### Supply Voltage

### Radio Signal Strength

### Microprocessor

### Temperature

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# Specifications.

## Telemetry Radio Support

### Iridium

Protocols	Short Burst Data
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Coverage	Worldwide
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### 4G Cellular LTE-M/NB-IOT

Protocols	MQTT
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Email	
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Network Support	Telstra (Aus) and most major networks globally
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Coverage	4 million Sqr km
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## Bluetooth Support

Bluetooth Standard	5.0
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Data Rate	2.5 kbps
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# Contact us

## EWS Monitoring.

Australia: Perth | Sydney

Americas

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