

Overview

The EWS Well-Cap leverages the power and reliability of our Switch Data logger family to deliver a cost-effective, self-contained package for simplifying **Groundwater Monitoring**. Made from extremely robust glass filled nylon with a lockable hasp, the Switch device sits safely within the top section and can be easily configured via our Bluetooth mobile app. The Well-Cap offers hassle-free and quick installation, simply connect to the sensor, place over the monitoring bore and fix in place with lock screws. Different adapters allow it flexibility to fit to any bore diameter and the flip back lid provides easy access to the bore after install for pump sampling events or calibration dips.

Features

- ✔ Multi-Communications options; Send data via Satellite (Iridium, Swarm, Myriota) or 4GLTE.
- ✔ Reads SDI12, Modbus, 4-20mA, Pulse sensor protocols.
- ✔ Robust Glass-filled nylon material.
- ✔ Lockable hasp for added security
- ✔ External battery pack or solar options.
- ✔ Flip top lid for easy access to the bore.
- ✔ Sensor hanger to support the weight of the sensor cable.
- ✔ Fits standard 50mm or 120mm diameter bores.
- ✔ Adapters available for all bore sizes.
- ✔ 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, entire package: diameter 160mm x 180mm
Rugged and robust for harsh environments - IP68.



Benefits

- ✔ Simplifies remote groundwater monitoring.
- ✔ Connects to all standard environmental sensors.
- ✔ Secure and lockable for deployments in public areas. Maintain easy access to the borehole.
- ✔ 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 onsite.
- ✔ Very straightforward and scalable for fast deployments and large monitoring roll outs.
- ✔ Perfect for new and retrofit instrumentation projects.



SPECIFICATIONS

Specifications subject to change without notice.

MECHANICAL

Size	Diam 160 mm			Height 180 mm
Weight		900 g		

ENVIRONMENTAL

Operating Temperature	-20	-	60 °C
Storage Temperature	-40	-	65 °C
Humidity	5	-	95 % Rel

POWER

External Power Supply

Input

Input Voltage	12	24 V	
Input Current	700 mA		

Internal Battery (Rechargeable)

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

Internal Battery (Non-rechargeable)

Chemistry	LiMnO2		
Terminal Voltage	6.8	7.8	8.4 V
Capacity 4.8 Ahr			

Sensor Power Output

Output Voltage	11	12	13 V
Output Current	500 mA		

Digital Output

Output Voltage	11	12	13
Output Current	500 mA		

STORAGE

Non-volatile-Log

Size	4 MB		
Events	256000 Events		

CLOCK

RTC

Accuracy (-10 to 70°C)	20	70 ppm	
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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	
Parity	N/E/O		

Serial - SDI12

Analogue - 4-20mA	(2)		
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Current Loop

Accuracy	0.5 % f.s.		
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Digital - Pulse Counter

Input Voltage	1	5 V	
Frequency	3 kHz		

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BUILT-IN SENSOR CHANNELS

Barometer - Pressure

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

Barometer - Temperature

Range	-40	85 °C
Accuracy	-0.8	+0.8 °C

Battery Voltage

Supply Voltage

Reference Voltage

Radio Signal Strength

Microprocessor

Temperature

TELEMETRY RADIO SUPPORT

Iridium

Protocols	Short Burst Data
Coverage	Worldwide

4G Cellular LTE-M/NB-IOT

Protocols	MQTT
Email	
Network Support	Telstra
Coverage	4 million Sqr km

Myriota

Protocol	AWS Lambda
Coverage	Australia Wide

LoRaWAN

Range to Gateway	10 Km
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BLUETOOTH SUPPORT

Bluetooth Standard	5.0
Data Rate	2.5 kbps