

EWS Well-Cap

Environmental IoT Device.



Environment • Water • Geotechnical • Data



EWS Well-Cap Environmental IoT Device

Overview.

The **EWS Well-Cap** leverage 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) or 4G L TE.
- Reads SDI12, Modbus485, 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 160mmx180mm.
- Rugged and robust for harsh environments.



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 - deigned for harsh remote environments.
- Plug and play setup on-site.
- Very straightforward and scalable for fast deployments and large monitoring roll outs.
- Perfect for new and retrofit instrumentation projects.

Specifications.

Mechanical

Size	Diameter 160mm	Height 180mm
Weight	900g	

Environmental

Operating Temperature	-20 °C to 60 °C
Storage Temperature	-40 °C to 65 °C
Humidity	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

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