Site Sentinel Aeos®

Ultra low-power, flexible Satellite data logger + RTU

- SEWER-MANHOLE MONITORING
- WATER GRID-ZONE PRESSURE MONITORING
- STREAM FLOW & LEVEL MONITORING
- FLOOD WARNING
- INTERNAL WORLDWIDE SATELLITE MODEM
- LONG BATTERY LIFE
- REMOTE DATA LOGGING

S2-001

The Site Sentinel Aeos® S2 is the flagship variant of the Site Sentinel Aeos® Satellite data logger and RTU family, providing highly-reliable, direct-to-host data monitoring in a single package, aimed at the utility and environmental sector.

Upstream communications provided using an internal L-Band simplex Satellite modem operating on the Globalstar Simplex network. Site Sentinel Aeos® S2 Remote Data Logger is equipped with the latest generation of low-cost Satellite IoT connectivity, permitting world-wide use almost anywhere with a view to the sky.

Complete control is handed to the user to allow custom data reporting and wake-from-sleep regimes to be configured to balance battery life against data reporting requirements. Easily access all device diagnostics and user payload data via automatic data export from the ProcessrIO Cloud platform or use the direct API Connection to ProcessrIO cloud platform.

The device is housed in a low-profile, robust ABS-plastic enclosure, UV stabilised and rated at IP68, allowing for direct outdoor installation, capable of withstanding submersion to a depth of four metres for four continuous days. An in-built solar regulator/battery charger is standard on the S2 product.

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Technical Specifications

General

Supply Voltage	3.5 – 8.5V DC, High-capacity, internal Lithium battery pack (field replaceable), built in solar regulator
Current Draw	50 μA sleep, 5 mA active, 0.5A (peak) Satellite TX
Real Time Clock	Internal – Year, month, day, hour, minute, second
Temperature	–20°C to +85°C Celsius
Humidity	0 to 90% relative humidity, non-condensing
Programming	Windows based Configurator M+ configuration software, local firmware download, local programming port, live local diagnostics
Mounting	90 mm (h) x 125 mm (d, nominal) / 155 mm (d, maximum), supplied with stainless steel mounting bracket and installation kit that includes O-Rings, O-Ring grease and Antenna
Environmental	IP68 (4 metres depth/4 days duration)

IO Interfaces

Digital Input	2 x Low-current dry-contact binary inputs, Inputs are overvoltage protected and non-isolated.
	Digital input 1 supports pulse counting up to 3Khz, Totaliser with 32-bit roll-over
	Digital Input 1 – Configure as Counter, Alarm Input (unsolicited in one or both directions) or Status Input
	Digital Input 2 – Configure as Alarm Input (unsolicited in one or both directions), Status Input or as Tamper Detection on pulse input flowmeter cables
Analogue Input	1 x Analog Input 0–2.5V DC, 15-bit resolution (non-isolated), 4 x user-configurable alarm limits on analog Input
System Input/Diagnostics	Internal measurement of Device Temperature, Device Battery Voltage and Device Session Status code, Remote Reporting of Device Battery Voltage and Reporting Mode Status Flags
Switched DC Out	Supplies up to 80 mA to power external sensors (24V, 5V or Battery Volts, user selectable)

Telemetry

Satellite Communications	Globalstar Simplex LEO Satellite Network Constellation, Unidirectional data communications, L-Band Operation, 1615 MHz, Output power (+18.5dBm)
Antenna	Internal ceramic patch antenna, Left Hand Circular Polarisation (LHCP), Uplink Gain 5 dBi (peak), 80% Efficiency at 1615 Mhz. Centre Frequency
User Data Payload	User Payload – 9 Bytes per message, Fixed data format
Host Support	Automatic data export from ProcessrIO Cloud portal, Direct API Connection to ProcessrIO for end user data access. Automated device provisioning via ProcessrIO
Security	Encrypted uni-directional data communication, Globalstar proprietary network security, Unique device electronic serial number (ESN), Local Configuration Password Security

Approvals

Build	RoHs
Standards	RCM (AUST/NZ), EMC compliance, FCC ID: L2V-STX3, IC: 3989A-STX3, Other export standards on request
Production	Proudly Made in Australia

Factory Accessories

Standard Accessories	A comprehensive range of factory manufactured or sourced accessories to ensure reliable and swift solution deployment. Visit **37s.com.au**

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