Site Sentinel®

High performance, Cellular Industrial Data Logger + RTU

- REMOTE DATA LOGGING
- TANK LEVEL MONITORING
- CATHODIC PROTECTION MONITORING
- PRESSURE SEWER PUMP STATIONS
- INTERNAL 4G CAT-M1/NB-IoT MODEM
- REMOTE DEVICE MANAGEMENT
- MODBUS COMMS FOR SMART INSTRUMENTS

P1-001

The P1 is an industrial-focused variant of the Site Sentinel® data logger and RTU family, providing highly-reliable, direct-to-host data monitoring in a single package.

The Site Sentinel® P1's flexible device configuration enables the measurement of a variety of analog and digital signals. This data is stored internally on non-volatile flash memory with upstream communications provided using an internal 4G cellular modem, permitting use on CAT-M1 and NB-IoT networks worldwide.

The device is housed in a low-profile, robust enclosure supporting a variety of installation options, including DIN rail compatibility and flat-panel mounting.

Additional communications ports provide DNP3.0 Slave and Modbus Master communications capability. User configurable Modbus table permits download of pre-defined or ad-hoc Modbus data profies to support downstream devices such as flowmeters. Remote configuration and device management is supported via leading industry SCADA applications, remote firmware download capability is provided via FTP file transfer.

The P1 suits a wide range of industrial applications, such as data logging of remote sites, lift station monitoring tank level and flow recording, pipeline cathodic protection monitoring and integration with pressure sewer pump stations.

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Technical Specifications

General

Supply Voltage	9–36V DC (isolated supply input)
Current Draw	20 mA nominal, 200 mA cell communications, 2 A (peak) cell network detect, (measured at 12V DC)
Real Time Clock	Internal – Year, month, day, hour, minute, second, Automatic DNP3 time synchronisation from DNP3 master, Automatic cellular network time sync when using FTP data export mode
Temperature	–20°C to +85°C Celsius
Humidity	0 to 90% relative humidity, non-condensing
Programming	Windows based Configurator M+ configuration software, Remote device management via DNP3, Remote firmware download via FTP, local programming port, live local diagnostics
Mounting	180 mm (w) x 112 mm (h) x 35 mm (d), DIN Rail mounting clips provided

IO Interfaces

Digital Input	4 x Opto-isolated dry-contact binary inputs, Each input supports pulse counting, up to 3Khz (sleep/wake mode dependant), Forward/Reverse/Nett Totalisers with 32-bit rollover
Analogue Input	4 x 0–20 mA, 0–2.048V DC, 0–5V DC or digital input (user selectable, per channel), 15 bit resolution (non-isolated), 4x user-configurable alarm limits per channel
System Input	Internal measurement of Cell Network RSSI, RTU temperature, RTU battery voltage and session status code
Digital Output	2 x SPST relay outputs, dry-contact outputs, common / N.O. contact pairs, 24V DC, 2 A contact rating per output
Serial Communications	1 x Modbus Master 3-wire RS232 or 2-wire RS485 (user selectable), 1 x DNP3 Slave RS232

Telemetry

4G Cellular	Supports World-wide 4G/LTE Cat-M1 / NB-IoT Bands: B1, B2, B3 (1800 MHz.), B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28 (700MHz.), B66, B71, B85. Class 3 Output Power (+23dBm)
Antenna	External SMA female connector
SIM Card	1.8 and 3V UICC (Standard size SIM card)
Data Protocols	DNP3.0 Slave unsolicited / polled mode, FTP data export
Host Support	True TCP support to DNP host (supports three Master IP addresses)
Security	CHAP or PAP authentication, SIM credentials, configurable username, password and APN, built in IP firewall, 512-Bit AES Encrypted firmware download

Approvals

Build	RoHs
Standards	RCM (AUST/NZ), EMC compliance, other export standards on request
Production	Proudly Made in Australia

Factory Accessories

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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1300 855 142
37s.com.au
info@37s.com.au