

SITE SENTINEL® M1

Ultra low-power, Alarm level monitoring Data Logger + DNP3 RTU



37 SOUTH

M1

- Sewer-manhole alarm level monitoring
- Drainage-manhole alarm monitoring
- Water tank level monitoring



Available with one float switch, ultra-low power consumption provides a compact and robust high / low level alarm monitoring solution, with integrated communications hardware and DNP3 protocol support.

The M1 is the waterproof, utility and environmentally-focused variant of the Site Sentinel® data logger and RTU family, providing integrated float switch and highly-reliable direct-to-host data monitoring in a single package, designed to operate in the field for up to ten years on a single set of batteries (based on one report per day).

The Site Sentinel® M1 enables high or low alarm level monitoring of sewer and drainage manholes or tanks.

This data is stored internally on non-volatile Flash memory with upstream communications provided using an internal 3G-compliant cellular modem. Host compatibility is ensured with integrated DNP3.0 protocol support. 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. Remote configuration and device management is supported via leading industry SCADA applications.

The device is housed in a low-profile; robust ABS-plastic enclosure, UV stabilised and rated at IP68 allows for direct installation into manholes and is capable of withstanding a depth of four metres for four continuous days.

The M1 suits a wide range of utility and environmental alarm level monitoring, such as sewer and drainage manhole high level alarm monitoring and water tank high/low level alarm monitoring.

TECHNICAL SPECIFICATIONS

General

Supply Voltage	3.5 – 8.5 V DC High-capacity, internal Lithium battery pack (field replaceable)
Current Draw	20 µA sleep, 5 mA active, 200 mA 3G communications, 2 A (peak) 3G network detect (measured at 3.6 V DC)
Real Time Clock	Internal – Year, month, date, hour, minute, second Automatic DNP3 time synchronisation from host
Temperature	–20 to +65° Celsius
Humidity	0 to 90% relative humidity, non-condensing
Programming	External Site Sentinel® programming cable (Part number XCAB013) Site Sentinel® Toolbox configuration software (Windows XP / 7)
Dimensions	90 mm (h) x 125 mm (d, nominal) / 155 mm (d, maximum)
Environmental	IP68 (4 metres depth/4 days duration)

IO Interfaces

Digital Input	Internal 'magnetic swipe' function to request on-demand data updates by field personnel 1x integrated float switch with weight, sealed to IP68
System Input	Internal measurement of 3G Network RSSI, RTU temperature and RTU battery voltage

Telemetry

3G Cellular	Supports 3.5G / HSDPA / UMTS Tri-band 850 / 1900 / 2100 MHz Class 3 power output (+24 dBm)
Antenna	Internal antenna (2dBi Gain)
SIM Card	1.8 and 3V UICC (Standard size SIM card)
Data Protocol	DNP3.0 unsolicited / polled support (Refer to DNP3 Device Profile)
Host Support	True TCP support to DNP host (supports three Master IP addresses)

Approvals

Build	RoHs
Standards	RCM (AUST/NZ), EMC compliance, other export standards on request

Factory Accessories

Mounting	Mounting brackets supplied for direct installation onto existing manhole walls supplied in 316 stainless steel
Magnetic Swipe	Magnetic swipe with keyring (XMAG001)

FEATURE OVERVIEW

