

Observant Solo



A low-cost and compact platform for remote monitoring. The Solo can operate using either a direct cellular or mesh radio network link to the Observant Global system.

Observant Solo

The Observant Solo is fully self-contained and stand-alone, secured with a single fastener to the top of a standard sized mounting pole.

The Observant Solo is powered from an integrated lithium battery and solar PV panel. Manufactured using a reinforced, UV stable and impact resistant polymer the Solo enclosure is designed to be deployed in the harshest of conditions. With an integrated antenna and innovative in-pole sensor cable routing the Observant Solo is simple and quick to install.

PRODUCT SPECIFICATIONS

Mechanicals

- Rugged enclosure with integrated antenna
- In-built pole mount, suits standard 1 1/2" (DN40) pipe up to SCH40 wall thickness
- Compact weatherproof locking connector system
- Single hex socket head fastener (key supplied)
- Bird deterrent spikes

Environmental

- Operating temperature: -30 °C to +70 °C [-22 °F to 158 °F]
- Ingress protection rating: IP65

User interface

- Tricolor LEDs indicating IO, comms and power status
- Piezo sounder for audible alerts and user feedback
- Touch button for power control and diagnostics

Power

- Integrated lifetime rechargeable battery
- 1 x 2.5 mm DC auxiliary input
- Power input tolerant to 30 VDC
- 20 W peak power draw
- 50 – 100 mW typical average power consumption (dependant upon wireless and sensor configuration)
- High efficiency battery charger with maximum power point tracking and capacity monitoring

Integrated Wireless Communications Options

- Cellular 3G/GSM/CDMA modem with integrated antenna

Sensor connectivity

- All connections protected against short circuit, reverse polarity and voltage transients
- 1 x Sensor port (RS485/SDI-12/4 – 20 mA)
 - Nominal 12 V sensor power output
 - Auto resetting 600 mA current limit
 - 20 V, 4 – 20 mA loop powered sensor mode
 - Configurable SDI-12 or RS485 line level
- 2 x Dual purpose inputs
 - Configurable digital type (sink or source)
 - Frequency measurement and pulse counting up 1 kHz (50% duty cycle)
 - 0 – 10 V analog input mode

Standard Features

- Data logging and remote synchronisation of internal and sensor parameters
- In-built GPS (logged data is geo-coded)
- Internal real-time clock (logged data is timestamped)
- Remotely upgradable firmware
- Extensive internal diagnostics and reporting
- Device driver software architecture for expansion of sensor support

