OBSERVANT ®

OBSERVANT PTY LTD

ABN 21 104 666 882

WEB observant.com.au

TEL 1300 224 688

PRODUCT SHEET

OBSERVANT C3

A flexible monitoring platform for remote infrastructure management incorporating many innovative features, the Observant C3 is the cornerstone of the Observant system. The Observant C3 can be configured for stand-alone outdoor use when paired with the robust and tamper proof C3 Solar Enclosure. Alternatively the Observant C3 Module can operate in isolation where power and protection is available.

C3 Module

The Observant C3 can remotely monitor a large range of agricultural and irrigation equipment with integrated access to the Observant Global™ service for data management and system control. The C3 delivers unparalleled functionality, tailored to meet the requirements of any monitoring and control scenario.The Observant C3 is available with a number of wireless communication options, allowing remote access to your equipment at the most optimal cost. The lifetime lithium battery technology and remote diagnostics functionality means minimal maintenance and reduced operating costs.

The C3 module electronics and battery are encased in a rugged ABS enclosure. An integrated 32mm DIN rail mount makes for convenient wall, cabinet or Observant Solar Enclosure mounting. See overleaf for full technical specifications.

The Observant C3 is covered by a three year warranty and includes unparalleled after sales service. Please see the Observant Equipment Warranty and the Observant Support Service Level Description for full details.

PRODUCT SPECIFICATIONS

C3 Electronics Module

Mechanicals

- Rugged ABS enclosure
- Integrated 35 mm DIN rail mount
- Compact and convenient connections via pluggable terminal blocks
- Cable stress relief mounts
- Dimensions: 215 mm (H) 160 mm (W) 75 mm (D)

User interface

- Tri-colour LEDs indicating IO, comms and power status
- Piezo sounder for audible alerts and user feedback
- Touch button for power control and user programmed gestures
- Pinhole reset button for in-field diagnostics

Power

- Integrated lifetime lithium technology battery
- 1 x High efficiency solar power input
- 1 x Secondary power input
- 1 x 2.5 mm DC plugpack input
- All power inputs tolerant to 60 V
- 40 W peak power draw
- 100 – 500 mW typical average power consumption (dependant upon wireless and sensor configuration)
- High efficiency battery charger with maximum power point tracking and capacity monitoring

Sensor connectivity

- All connections protected against short circuit, reverse polarity and voltage transients
- 4 x Dual purpose switche power outputs
  - Nominal 12 V output
  - Auto resetting 600 mA current limit
  - 20 V, 4 – 20 mA loop powered sensor mode
- 4 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
- 2 x RS485 sensor ports
  - Fault tolerant to 60 V
  - Switched 12 V, 600 mA sensor power supply
- 1 x RS232/SDI-12 sensor port
  - Configurable SDI-12 or RS232 line levels
  - Switched 12 V, 600 mA sensor power supply

Integrated Wireless Communications Options

- Long range 5 W UHF via BNC connector
- Short range 1 W 900 MHz via SMA connector
- 3G/GSM cell radio via SMA connector and SIM card
- Combinations of technologies can be factory configured

Other Standard Features

- USB port (Type B connector) for configuration and local monitoring
- Data logging and remote synchronisation of internal and sensor parameters
- In-built GPS via SMA antenna connection (logged data is geo-coded)
- Internal real-time clock (logged data is time-stamped)
- Remotely upgradable firmware
- Extensive internal diagnostics and reporting
- Device driver software architecture for expansion of sensor support

C3 Solar Enclosure

Mechanicals

- Robust and vandal proof solar power supply and environmental protection for the C3 electronics module
- Internal DIN rail for C3 module mounting
- Integrated 14 W solar panel
- Adjustable solar panel angle for maximum efficiency
- Integrated 3G/GSM and GPS mulit-band antenna

Environmental protection

- IP 56, vented, weather-proof, and UV stable enclosure
- No external fastenings (theft prevention)
- Pad-lockable door latch
- Detachable bird deterrent

Mounting and Cabling Options

- Clamp mount suitable for pole diameters up to 90 mm
- Pole may extend beyond limits od C3 for additional antenna height
- Direct wall mount option
- Single bottom entry cable gland suitable for conduit sizes up to 25 mm in diameter
- Cable routing internal to mounting pole via optional rear entry cable glands
- Internal space for excess cable, in-line connectors or other equipment
- Multiple antenna mouting options to suit various wireless configurations