Portable & Permanent, Low-Powered Remote Telemetry

Proteus Instruments provide a range of compact wireless telemetry systems which can either come with integrated batteries, micro-solar panels or external AC or DC power connectivity; all solutions come with seamless integration options. The Proteus can be configured to provide SDI12, RS232 or Modbus outputs allowing users to monitor multi-parameter water quality readings either in real-time or near real-time. Our end-to-end solution helps water, industrial and environmental organisations to save money, increase efficiency, reduce downtime/failures and improve compliance.

Our systems are designed to provide ultimate user functionality and flexibility, allowing users to monitor their critical assets, manage their data and to integrate Proteus sensors into third-party applications such as SCADA, GIS and AI/data analytics services.

Our telemetry systems allow users to embed the game-changing Proteus into their own infrastructure networks with the minimum of effort.

Applications

- Wastewater process monitoring and control
- Industrial Effluent Compliance Monitoring
- Water treatment inlet monitoring and control
- CSO/Surveillance/Pollution Monitoring

- Point Source Pollution Monitoring
- Bathing Water Monitoring
- Long-term/Short-term monitoring of any water body
- Event notification of threshold exceedances, pollution events

Real-Time Data

- Our systems offer standalone flexibility with the option to integrate into SCADA systems using API plug-ins, send data via email or via FTP.
- Dashboard functionality or indeed embed specific graphs into public URLs
- Receive automatic uploads and reports to your email or FTP client at fully customisable intervals.
- Alarm functionality can be provided via SMS or email
- Fully customisable GUI allowing users to upload their own logos, graphic

We offer two main configurations: (1) portable and (2) permanent.

Portable Systems

For our portable systems, the telemetry and battery packs are self-contained in a ruggedised hard case. All the user needs to do is (1) connect the Proteus to the hard case connector, (2) plug in the solar panel or external power supply and (3) turn the system on using the master on/off switch inside the hard case. The hard case itself is small enough to either be concealed (to be hidden) locally, locked (using a padlock using the relevant locking eyes) or simply left in a secure location. Together with a 10 or 20-watt solar panel our system can be installed anywhere in the world where there is a cellular signal and some daylight to charge the system. The system can sustain 5-minute readings and upload every hour 24/7 indefinitely. Our systems can be supplied with an integral or externally mounted aerial.

Permanent Systems

Our permanent systems are mounted in small kiosks but many of our clients request custom versions depending how they are using our systems. These could be a standard wall-mounted enclosure (either with a solar panel, external batteries or mains AC/DC power) or as part of a custom built enclosure offering further integration such as additional 4-20mA, relay, ethernet and modbus outputs.

Key Features

◊ Remote monitoring of up to 40 parameters
◊ Remotely configuration
◊ Powers external SDI12 devices.
◊ Integrated or optional external aerial
◊ Indefinite rechargeable battery (when used with solar or external power supply)
◊ View graphs and export data at the touch of a button, customisable GUI to include client details (if required) and intelligent alarm reporting.
◊ Rugged construction
◊ Simple and quick to use and install.

Technical Specification (Portable and Permanent)

Inputs	Up to 40 parameters Voltage Supply: 12V portable or 12VDC/110VAC/230VAC for telemetry kiosk
Battery	Internal rechargeable sealed lead-acid battery. 12v - 12amp/hr. Hot swappable.
Charge (for 12v systems)	Solar Panel 10-20w, inbuilt solar
Operation Time	Unlimited, depending on power supply and/or sunlight exposure, programme schedule
Serial Protocol	SDI-12 master (up to 10 sensors)
Memory	300k readings regulator 12V, 6A
Comms	GSM quad band—850, 900, 1800, 1900 MHz (capable of GPRS, SMS, email, and FTP); 2G available SMA connector with stud antenna or optional external antenna for Tube 300RAntenna:
Aerial	Internal or external bulkhead connector
Local Monitoring	External power (Volts) RTU voltage Cellular Signal Strength
Clock	Real-time clock/calendar – GMT adjusted.
Dimensions	Portable - 387x394x260 mm; Permanent - 430x330x200 mm
Weight	Portable - 13kg; Permanent - 11kg. Both include battery.
Operating Temperature	-20degC to +80degC
IP Rating	66
PLC Option	Requires 110/230VAC and provides modbus, ethernet and 4-20mA options.