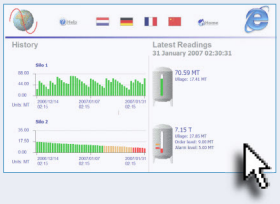
# SITEWATCH™ SW100

## Remote Terminal Unit

### "A versatile and cost effective solution for Remote Control and Monitoring"

### Industrial Design

The SW100 is a small, low cost 32bit ARM9 microprocessor based Remote Terminal Unit (RTU) designed to provide a robust, economical solution for any remote monitoring application.

The SW100 RTU is supplied in a wall mountable IP rated enclosure with a hinged lid and provides easy handling.

The lead free components and manufacturing meet the current environmental regulations (RoHS). The use of industrial grade components allows the circuit boards to be used in both high and low extremes of temperature.

The various serial and Ethernet communication ports offered provide the means to collect data from a large range of external field devices, including PLCs and Intelligent Meters.

All main Industry standard protocols are supported.

The RTU database is held in Battery Backed RAM ensuring integrity during power failure.

### Inputs / Outputs

As standard the SW100 has 4 16bit isolated differentially selected analogue inputs (AINS) with 5KV isolation as standard (signal to logic). The SW100 has 3 additional expansion slots available; the sub boards include 8 way digital input (DINS); 8 way digital output (DOUTS) and 4 way 16bit analogue input (AINS).

The analogue inputs can be configured to accept either 4 to 20mA or 0 to 10Vdc; the digital inputs can be configured for internally or externally powered contacts.

The SW100 also has a small number of internal I/O points for self monitoring and control. Further I/O can be achieved by using expansion cards or slave RTUs.

### Communications

The SW100 supports GPRS & GSM communications. It also has 4 serial ports (RS232 & RS485), Ethernet (10/100 mbps UTP) and USB Host Port.
A network of SW100 RTUs can be interconnected via Ethernet or RS485.
Supported protocols include Modbus; Profibus; DNP3; SNMPv2c and IEC 60870.

### Software

The SW100 application runs on the Linux operating system and supports IsaGraf™ as an option.
The RTU has a web interface for easy local / remote setup and configuration.
Email and SMS alarm / alert messages can be sent directly from the SW100 RTU.

### System Health Monitoring

The SW100 RTU has a number of self monitoring and in-built test routines, hardware and software watchdogs and operational status indicators.

- ☑ Main DC supply voltage available
- ☑ Battery Support Status
- ☑ UPS Battery Low & UPS Mains Fail
- ☑ Watchdog Healthy - System running
- ☑ RTU Temperature
- ☑ Memory Integrity Checks

### Physical Interconnection

All field interconnections (AINS, DINS, DOUTS) and the Sitewatch Local Area Network (LAN) are made by plug-in screw terminals located within the RTU Enclosure.

### Power Supply

230/115 VAC mains power supply via UPS.

Option for +8V to +30V DC Supply

### Dimensions

The SW100 RTU is supplied in a robust IP rated steel or polycarbonate enclosure with a hinged lid.
The RTU is 400mm (h) x 300mm (w) x 160mm (d)

### Typical Applications

- ☑ Small SCADA systems:
  - Environmental Monitoring
  - Water Industry
  - ATC Applications
  - Gas & Oil Industry
  - Chemical Industry
- ☑ VMI Systems
- ☑ Internet Based Remote Monitoring:
  - Silo & Tank farms
  - Wind farms
  - Pump Stations

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