Remote Terminal Units
Sitewatch™ MIDI and MINI

Sitewatch™ MIDI and MINI RTUs are intelligent microprocessor based Remote Terminal Units which are used to monitor and control the operation of equipment at a remote site. Primary applications for the MIDI and MINI RTU's are as part of a Supervisory Control and Data Acquisition (SCADA) or Telemetry System.

GENERAL

The RTU's communicate with their Master Station computer over the Public Switched Telephone Network (PSTN), Dedicated Lines or radio networks using modems or dedicated communications interfaces. The modems and radio transceivers are powered from the RTU and supported by the standby batteries when mains power fails.

The Sitewatch™ MIDI and MINI RTU's are normally supplied in a moulded enclosure with a hinged lid protected to IP65. Each RTU is physically and functionally split into two printed circuit boards mounted in the enclosure, the processor board fitted into the hinged lid and the input/output board mounted in the base of the enclosure. All field connections are made to plug-in screw terminals on the input/output board. A four line by 20 character Liquid Crystal Display and 16 key keypad can be fitted for local operator display and interrogation. The channel names to be displayed in the RTU can be specified by the user and can therefore be in any language to suit the operator.

The RTU's have built in data logging facilities for all inputs and outputs and a real time clock which is used to time and date stamp the logs. The baseline operational software (boot software) is held in non-volatile EPROM memory with application programs and critical site configuration data held in Flash ROM. Logged data is held in battery backed CMOS static RAM.

Each RTU has two serial data ports, one of which is configured for the Master Station communications interface and a second which can be used for local interrogation, connection to other RTU's via a Local Area Network or for interfacing to other intelligent site equipment.

MIDI REMOTE TERMINAL UNIT

The Sitewatch™ MIDI RTU has 8 optically isolated digital inputs, 8 differentially selected analogue inputs and 3 digital outputs fitted as standard. The digital input capacity can be increased to 16 or 4 pulse inputs added by fitting a small expansion board. Digital and analogue inputs can be configured by on-board links to provide a two wire interconnection to site equipments. A 24 VDC 250mA supply is available to power external analogue transducers.

MINI REMOTE TERMINAL UNIT

The Sitewatch™ MINI RTU has 4 optically isolated digital inputs and 4 differentially selected analogue inputs. Digital and analogue inputs can be configured by on-board links to provide a two wire interconnection to the site equipment. A 24 VDC 150mA supply is available to power external analogue transducers.

SPECIFICATIONS

MIDI RTU

- IP65 protected wall mounting ABS enclosure
- 8 optically isolated digital inputs, potential free or powered contacts
- 8 differentially selected analogue inputs, mA or Volts, with 12 bit (1 in 4096) A-D converter
- 2 changeover relay contact digital outputs
- 24 Volt DC 250mA transducer power supply
- UK BABT or other approved auto dial/auto answer modem
- Serial port for networking other outstations at the same site
- 32K bytes battery backed RAM for data storage expandable to 96K bytes
- Battery backed real time clock
- Battery backed power supplies to support outstation, modem and transducers for up to five days in the event of mains power failure
- Hex keypad and Liquid Crystal Display for local interrogation
- Input/Output Expansion Cards
  - 8 optically isolated digital inputs
  - 4 pulse inputs

MINI RTU

- IP65 protected wall mounting ABS enclosure
- 4 optically isolated digital inputs, potential free or powered contacts
- 4 differentially selected analogue inputs, mA or Volts, with 12 bit (1 in 4096) A-D converter
- 24 Volt DC 150mA transducer power supply
- UK BABT or other approved auto dial/auto answer modem
- 32K bytes battery backed RAM for data storage
- Battery backed real time clock
- Battery backed power supplies to support outstation, modem and transducers for up to five days in the event of mains power failure
- Hex keypad and Liquid Crystal Display for local interrogation

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