SITEWATCH™

MIDI 8

Remote Terminal Unit

"A compact and cost effective solution for Remote Control and Monitoring"

Industrial Design

The Midi8 is a small, low cost microprocessor based Remote Terminal Unit (RTU) designed to provide a robust, economical solution for any remote monitoring application.

The Midi8 RTU is supplied in an IP65 rated polycarbonate enclosure with a hinged lid for wall mounting and provides easy handling.
The RTU has a four line liquid crystal display and a 16 key keypad for local operator display and interaction.
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 communication port facilities of the Midi8 provide the means to collect data from a large range of external field devices, including PLCs and Intelligent Meters.

Industry standard protocols such as MODBUS are available.

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

Inputs / Outputs

As standard the Midi8 has 16 optically isolated digital inputs (DINS), 8 isolated differentially selected analogue inputs (AINS) and 4 single pole relay digital outputs (DOUTS).

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 Midi8 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

As standard the Midi8 has 2 serial ports, one is used for the main communications interface via a modem. The second serial port is available for local

interrogation or connection to a Sitewatch LAN. A maximum of 16 RTUs can be interconnected on the Sitewatch LAN.

The Midi8 supports connections including RS-232; RS-485; Ethernet (TCP/IP); Public Switched Telephone Networks (PSTN); Cellular Networks (GSM); GPRS.

Expansion Card Options

Digital Input capacity can be increased to 24 with the addition of a small plug-in expansion card. Digital Output and Pulsed input expansion are also available.

A serial expansion card can be fitted to the RTU to support up to 6 additional serial data channels. The additional channels will support interfacing to other intelligent equipment and Local Area Networking (LAN) of Sitewatch RTUs.

System Health Monitoring

The Midi8 RTU has a number of self monitoring and in-built test routines, hardware and software watchdogs and operational status indicators.

- ☑ Mains Power available
- ☑ Watchdog Healthy - System running
- ☑ Event - Alarm indication
- ☑ Sitewatch Active / Commissioned indication
- ☑ Modem Status indication
- ☑ RAM Checksum error
- ☑ ROM Checksum error

Physical Interconnection

All field interconnections (ains, dins and douts) and the Sitewatch Local Area Network (LAN) are made by screw terminals located within the RTU enclosure.

Power Supply

230/115 VAC uninterruptible mains power supply (Lee-Dickens UPS100)

D.C. powered option available

Dimensions

The Midi8 RTU is supplied in a robust polycarbonate enclosure with a hinged lid, LCD and Keypad.
The RTU is 380mm (h) x 185mm (w) x 130mm (d) with fixing centres 354mm (h) x 164mm (w)

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
  - Pumping Stations

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