![Monitran - Sensors for Industry]

Condition Monitoring

The MTN/5000 is a cost-effective, versatile and easy-to-use microcontroller-based condition monitoring system.

Available with up to 96 channels*, the MTN/5000 is ideal for viewing the health of plant and equipment, raising alarms and indicating when further investigations may be warranted.

As an optional extra, the system can be fitted with Modbus TCP/IP, for networking purposes or to enable multiple MTN/5000s to operate together within a larger monitoring or control system.

*As standard the MTN/5000 is supplied with 12 channels, as per the photo above, but the unit can be customised to cater for anywhere between 1 and 96 channels; noting that the enclosure dimensions, front panel fixtures, screen size and menu options might change.

The MTN/5000 is designed to work with Monitran's **Vibration** sensors but it can also accommodate most other sensor types including those for measuring:

- **Temperature**
- **Pressure**

- **Displacement**
- **Proximity**

...plus the MTN/5000 can also accept a **voltage or current** as input. Please note: the MTN/5000's channels are configured for sensor and input type during manufacture. Also set are the input ranges and data resolution, in order for the MTN/5000 to best suit your application.

Data can be displayed and plotted over time in a number of ways including:
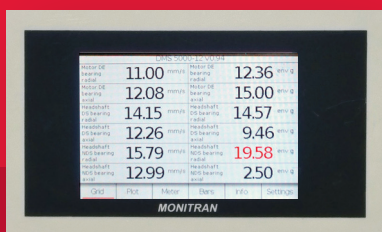
A grid of data readings, with appropriate parameter units.
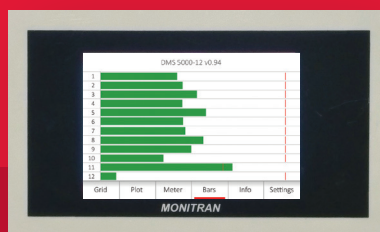
An easy-to-interpret bar chart of signal levels; colour coded to show relativity to alarm levels.

Radial meters indicating channel levels against their corresponding parameters.

The MTN/5000 features a high-performance ARM Cortex-M3 processor and, depending on cabinet size, will have either a 3.5 or 5inch TFT touch screen.

The easy-to-navigate menu allows you to set:

- Data sampling periods and buffer sizes;
- Alarm levels and delays (in order to ignore machinery 'start up' levels, for example); and
- Threshold (alarm) levels - on a channel-by-channel basis or across all channels simultaneously

In addition, the system has a number of digital I/O channels (12 as standard) that can be used for multiple alarms or as a communication channel. Integration is also possible via Ethernet plus the raw signals from the sensors are made available via BNCs for analysis, using an oscilloscope or spectrum analyser for viewing vibration signatures, for example.

Technical

Our standard MTN/5000 has the following technical specifications:

Analogue (input) channels: 12
Sampling resolution: 12bit
Sampling rate: Up to 1M sample/s
Sampling buffer: 12 x 100 samples
Input range: depends on sensor type
Screen: TFT Touch-screen (24bit colour)
- 3.5inch (480 x 320 pixels); or
- 5inch (800 x 480 pixels).
Alarms: 12 (user configurable, one per channel)

Input voltage: 24VDC
Dimensions (enclosure only): 350 x 250 x 200mm
Dimensions (including glands): 372 x 250 x 200mm

Options

Ethernet connectivity:
TCP/IP or Modbus

About Monitran

Established in 1986 and based about 55km northwest of London, Monitran is a world leader in the design, development and manufacture of sensors and systems for vibration, proximity and displacement measurement and monitoring.

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