

# Vibration Sensors

We have extensive ranges of both general and special purpose vibration sensors, suitable for use in a wide variety of analysis and monitoring applications. All are made from robust stainless steel, are typically available as top or side entry and with an integral cable or connector.

## General Purpose Sensors - Analysis

These are ideal for use with portable and on-line vibration analysers, and can provide you with a spectrum of vibration intensity against frequency; changes in which allow you to determine the health of the machinery to which the sensor is attached and to predict expected component life. Such information is of great value for your condition-based predictive maintenance strategy. Examples from this range include:



The MTN/2200-2P/4P/C is suitable for use in most industrial applications. It has a frequency range of 2Hz to 10kHz, a temperature range of -55°C to 140°C and is sealed to IP67.



The MTN/2200W is a submersible sensor (sealed to IP68) with a frequency range of 2Hz to 10kHz and a temperature range of -55°C to 90°C.



The MTN/2200I is an ATEX and IECEx Group II certified, intrinsically safe sensor, it has a frequency range of 2Hz to 10kHz and a temperature range of -55°C to 90°C.

The above and all other sensors in this range are constant current accelerometers with isolated AC outputs (100mV/g with other sensitivities available upon request). For the full details of all products, please visit [www.monitran.com](http://www.monitran.com).

## General Purpose Sensors - Monitoring

These are ideal for use with PLCs and other industrial controllers; because changes in vibration levels can provide the earliest indication that conditions have changed and warrant investigation. They can also be used to automatically trigger an emergency shutdown as, for example, the machinery working loose from its mountings, fan blade malfunctions and bearing failures all require immediate attention if widespread damage is to be avoided. Examples from this sensor range include:



The MTN/2285-2P/4P/C is suitable for use in most industrial monitoring applications. Its output is proportional to velocity and it has a frequency range of 2Hz to 1kHz, a temperature range of -25°C to 90°C and is sealed to IP67.



The MTN/2285W is a submersible velocity transducer range of 2Hz to 1kHz and a temperature range of -55°C to 90°C.



The MTN/2285I is an ATEX and IECEx Group II certified, intrinsically safe accelerometer. It is sealed to IP67, has a frequency range of 2Hz to 1kHz and a temperature range of -25°C to 90°C. A variant is also available for mining applications.

The above and all other sensors in this range have DC outputs (4-0mA). For the full details of all products, please visit [www.monitran.com](http://www.monitran.com).

# Special Purpose Sensors

Whilst our general purpose sensors are suitable for most industrial and hazardous areas applications it is sometimes necessary to analyse or monitor levels using sensors that can work at more elevated temperatures, lower frequencies, measure temperature (as well as vibration levels) or measure more than a single vibration parameter.

**Examples from this range include:**



The MTN/1105SCE\* is constant current AC output accelerometer for vibration analysis at temperatures up to 250°C. It has a frequency range of 1Hz to 10kHz and a sensitivity of 100mV/g (others are available upon request).



The MTN/P1100\* is a high sensitivity (1100pC/g @ 80hz) accelerometer. It has frequency range of 1Hz to 10kHz and a temperature range of -55°C to 250°C.



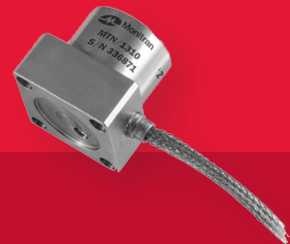
MTN/2330 Heavy-duty constant current accelerometer with 3 isolated 100mV/g AC outputs (X, Y and Z axes). Ideal for any application where vibration in all three spatial axes needs to be measured. Frequency range 2Hz to 10kHz. Temperature version also available.



2285STC/532 General purpose, side-entry velocity transducer with dual independent 4-20mA outputs. Sealed to IP65 with 4-20mA outputs proportional to velocity and temperature range that can connect directly to PLC, DCS and other industrial controllers. Frequency range 2Hz to 1kHz.



The MTN/2200TW is a submersible dual output sensor. It has an isolated AC output for measuring acceleration (100mV/g as standard, over the frequency range 2Hz to 10kHz) and an isolated DC output for measuring temperature (10mV/C).



The MTN/1310\* is a compact and lightweight triaxial sensor and is ideal for laboratory or light industrial applications. Its frequency range is 1Hz to 10kHz and its temperature range is -55°C to 140°C.

\*This sensor requires the use of a charge amplifier.

The above are just a few examples of our special purpose sensors. For the full details of these plus our other products, please visit [www.monitran.com](http://www.monitran.com)

In addition, as a highly capable manufacturer of sensors, we are able to design and build bespoke sensors.

**Cables & Connectors** - We have a wide range of factory-tested cables and connectors, chosen to maximise sensor performance and life.

**Mounting Hardware** - These include magnets, stud and grub screws, and quick fit adapters.

**Power Supplies** - These include DIN rail-mounted and portable battery powered constant-current units

## 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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