

# Sensors and Systems that protect your plant...



## Product Guide



# About us...

Hansford Sensors Ltd. specialises in the design and manufacture of an extensive range of vibration sensors, associated monitoring systems and accessories.

Our product range includes vibration sensors or industrial accelerometers with either AC outputs for use with data collectors, or 4-20mA outputs for direct use with PLCs for the important task of monitoring vibration levels of plant and machinery in a predictive maintenance role across most industries.

Intrinsically safe AC and 4-20mA versions are now available with ATEX and IEC Ex certification for approved use in Group I (Mining) and Group II (Petrochemical).

We also supply multi-sensor switch boxes, vibration sensor modules, portable vibration meters, accessories for sensors, vibration condition monitoring protection systems and custom-built vibration sensors.

Hansford Sensors is committed to providing our customers with quality products and services and recognises the importance of constantly striving to exceed expectations. We focus on building good working relationships with our customers, suppliers and employees as we believe this is key to the long-term success of the company. Hansford Sensors Ltd. have secured their ISO 9001:2000 certification with LRQA.

**Warranty** - All Hansford Sensors products are covered by a no-quibble three year warranty.



## Vibration Sensors - Top entry, AC versions - Series HS-100



The **HS-100 Series** of industrial accelerometers are piezoelectric devices offering a standard 100 mV/g AC output (others available).

The **HS-100T Series** are dual output industrial accelerometers offering a vibration (100mV/g) and temperature output.

They typically operate over a temperature range of -55 to 140°C and cover a frequency response over 2 Hz to 10 kHz.



## Vibration Sensors - Side entry, AC versions - Series HS-100S



The **HS-100S Series** of industrial accelerometers are side entry devices offering a standard 100 mV/g AC output (Others available).

Robustly constructed with a welded stainless steel housing, a choice of fixing threads and studs are available.



# AC, 4-20mA and Dual outputs

## Vibration Sensors - Top entry, 4-20mA versions - Series HS-420

The **HS-420 Series** of industrial accelerometers are piezoelectric devices offering a 4-20mA output for PLC/DCS/BMS connection.

They are robustly constructed with a welded stainless steel housing, have a choice of top entry cable or connector with various mechanical threads and studs arrangements for fixing of the sensor.

They typically operate over a temperature range of -55 to 90°C and cover a frequency response over 2 Hz to 10 kHz.



The **HS-421 Series** of industrial accelerometers are piezoelectric devices offering a dual output of 4-20mA output proportional to velocity and an AC 'g' for data collection.

The **HS-420T Series** of industrial accelerometers offer a dual output measuring both vibration and temperature.

The **HS-422 Series** of industrial accelerometers offer a 4-20mA output proportional to 'g'.

## Vibration Sensors - Other versions



**The HS-104 Series**  
3 wire, 100mV/g industrial accelerometers

**The HS-105 Series**  
High Temperature industrial accelerometers

**The HS-130 Series**  
Compact AC industrial accelerometers

**The HS-140 Series**  
Charge Output industrial accelerometers

**The HS-160 Series**  
Velocity Output industrial accelerometers

**The HS-170 Series**  
Slim Profile industrial accelerometers

Detailed information datasheets for each sensor are available for download at [www.hansfordsensors.com](http://www.hansfordsensors.com)

# ATEX approved Sensors...

## Vibration Sensors - Intrinsically safe, AC versions - Series HS-100I



The **HS-100I and HS-100SI Series** of industrial accelerometers are AC versions which are ATEX and IEC Ex certified for use in Group I and Group II potentially explosive environments. They typically operate over a temperature range of -55 to 140°C and cover a frequency response over 2 Hz to 10 kHz.

The **HS-105I Series** of industrial accelerometers can operate in high temperature conditions up to 250°C and have an inline charge amplifier which is positioned outside the high temperature environment.



## Vibration Sensors - 4-20mA versions - Series HS-420I



The **HS-420I and HS-422I Series** are industrial accelerometers with 4-20mA outputs having ATEX, IEC Ex certification and Australian approval. The 420IT and 422IT offer dual outputs of vibration and temperature.

Robustly constructed with a welded stainless steel housing, a choice of fixing threads and studs are available.



Detailed information datasheets for each sensor are available for download at [www.hansfordsensors.com](http://www.hansfordsensors.com)



# Monitoring the sensor outputs...

## Connection & Switch Boxes - Series HS-SE/CE/BE



We manufacture a range of Switch and Connection Boxes for use with our comprehensive series of industrial accelerometers.

**HS-SE Series** - A cost-effective switching unit capable of accepting 2 to 150 accelerometers.

Available in a variety of different housings, including stainless steel and GRP.

The **HS-BE Series** offers a low-cost option for Sensor Connection Boxes.

Simple-to-use, the HS-BE boxes are ideal for connecting up to 4 ways, via the BNC, with all commercially available portable data collector to take vibration readings.



## Sensor Modules - Modular Protection Systems - Series HS-500



### The HS-500 Series of Sensor Modules

A family of DIN rail mounted modules for use with our vibration sensors. These can be used as a single channel system or formed into a multi-channel plant protection system with pre-set trip alarms and controls. A wireless option is also available.

Several modules are available from the HS-510 to the HS-580, all performing different tasks such as Power Supply, Converter, Signal Processing, Sensor Interface, Alarm Trips, Displays, etc. allowing a multi-function system to be created.



# Sensor - monitor, connect & fix...

## Vibration/Temperature Monitoring Kits



### HS-620 & HS-630 Vibration/Temperature Meters

The recently launched **HS-620** Vibration Monitoring Kit is a portable, battery-operated instrument, and comes with a hand-held probe making it an ideal entry-level unit for use around the factory.

The new **HS-630** has all the facilities of the HS-620 with the addition of a non-contact temperature measuring sensor aided by a laser locator beam.

It is designed for maintenance engineers to use to monitor vibration levels and spot temperature on important plant and machinery.

Kit includes Vibration/Temperature Meter, Hand-held Probe, Cable, Magnetic Mount, Mains Charger, In-car Charger, Instruction Manual.



## Sensor Cable - Cable assemblies, Connection brackets



To help you make connection with your sensors to all commercially available data collectors, we supply a wide choice of cable assemblies, mating connectors, connection brackets, etc.



## Sensor Fixing - threaded and magnetic studs



Tel: +44(0) 845 680 1957  
Fax: +44(0) 845 680 1958  
Email: [sales@hansfordsensors.com](mailto:sales@hansfordsensors.com)  
Web: [www.hansfordsensors.com](http://www.hansfordsensors.com)

