# **HS-100S** Accelerometer

AC acceleration output via 4 Core Polyolefin HFFR

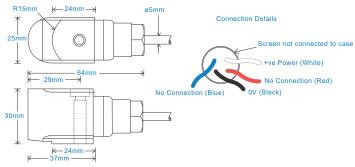
#### **Key Features**

- Side entry for easy access
- · Resistant to oil

#### Industries

Building services, Pulp and Paper, Mining, Metals, Utilities, Automotive, Water, Pharmaceutical





| Technical Performance  |  | Mechanical              |   |
|------------------------|--|-------------------------|---|
| Mounted Base Resonance | see 'How To Order' table (nominal)     | Case Material           | Stainless Steel                                     |
| Sensitivity            | see: 'How To Order' table ±10%         | Sensing Element/Constru | uction PZT/Compression                              |
|                        | Nominal 80Hz at 22°C                   | Mounting Torque         | 8Nm   |
| Frequency Response     | 2Hz (120cpm) to 10kHz (600kcpm) ± 5%   | Mounting Bolt provided  | see: 'How To Order' table x 30mm long               |
|                        | 1.5Hz (90cpm) to 12kHz (720kcpm) ± 10% | Weight                  | 185gms (nominal) body only                          |
|                        | 0.8Hz (48cpm) to 15kHz (900kcpm) ± 3dB | Maximum Cable Length    | 1000 metres   |
| Isolation              | Base isolated                          | Standard Cable Length   | 5 metres  |
| Range                  | see: 'How To Order' table              | Screened Cable          | Polyolefin HFFR - length to be specified with order |
| Transverse Sensitivity | Less than 5%                           | Mounting Threads        | see: 'How To Order' table                           |
|                        |  |                         |   |

| Electrical          |                                    |
|---------------------|------------------------------------|
| Excitation Voltage: | 18-30Volts DC                      |
| Electrical Noise    | 0.1mg max                          |
| Current Range       | 0.5mA to 8mA                       |
| Bias Voltage        | 10 - 12 Volts DC                   |
| Settling Time       | 2 seconds                          |
| Output Impedance    | 200 Ohms max.                      |
| Case Isolation      | >10 <sup>8</sup> Ohms at 500 Volts |

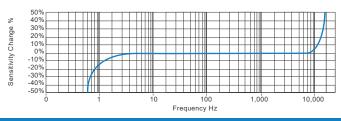
# Sealing

Environmental

**Operating Temperature Range** Maximum Shock EMC

| -55 to    | 12000 |
|-----------|-------|
| -55 10    | 130-0 |
|           | IP68  |
| Ę         | 5000g |
| EN61326-1 | :2013 |

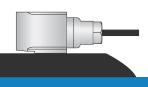
## Typical Frequency Response (at 100mV/g)



## Applications

Fans, Motors, Pumps, Compressors, Centrifuges, Conveyors, Air Handlers, Gearboxes, Rolls, Dryers, Presses, Cooling, VAC, Spindles, Machine Tooling, Process Equipment

Vibration sensor should be firmly fixed to a flat surface (spot face surface may be needed to be produced and cable anchored to sensor body.)



## How To Order

| Product PrefixProduct SeriesHS - Hansford Sensors100 - Industrial Vibration Sensor   |   |                                  |  |  |  |   |   |  |   | Length<br>length spe | ecified in     | metres  |   |  |
|--|---|----------------------------------|--|--|--|---|---|--|---|----------------------|----------------|---|---|--|
| H S 1  | 0 | 0                                | S  | X  | X  | X | X | X  | X | X                    | X              | X   | X |  |
| Extra Options (if required)<br>F - Filtered<br>RT - Temperature Output PT100<br>S - 90° Side Exit<br>T - Temperature Output<br>Y - 5% tolerance on sensitivity |   | 030 -<br>050 -<br>100 -<br>250 - | <b>vity</b><br>10mV/g<br>30mV/g<br>50mV/g<br>100mV/g<br>250mV/g<br>500mV/g | Range<br>±800g<br>±250g<br>±160g<br>±80g<br>±32g<br>±16g | Resonant Frequency   27kHz (1,620kcpm)   25kHz (1,500kcpm)   23kHz (1,380kcpm)   21kHz (1,260kcpm)   19kHz (1,140kcpm)   17kHz (1,020kcpm) |   |   | Cable/Connector<br>37 - 4 Core Polyolefin HFFR |   |                      | R 02 -<br>06 - | <b>Mounting Threads</b><br>02 - ¼-28" UNF Male<br>06 - M6 x 1mm Male<br>08 - M8 x 1.25mm Male |   |  |



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