

# HS-420 Accelerometer

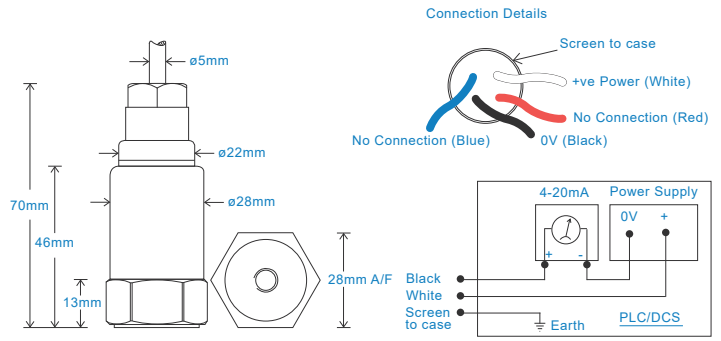
## 4-20mA velocity output via 4 Core Polyolefin HFFR

### Key Features

- Halogen free cable
- Resistant to oil
- For use with PLC/DCS systems

### Industries

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



### Technical Performance

|                        |  |
|------------------------|--|
| Mounted Base Resonance | 5kHz min   |
| Velocity Ranges        | see: 'How To Order' table $\pm 10\%$<br>Nominal 80Hz at 22°C |
| Frequency Response     | 10Hz (600cpm) to 1kHz (60kcpm) $\pm 5\%$ - ISO10816          |
| Isolation              | Base isolated  |
| Range                  | 50g peak   |
| Transverse Sensitivity | Less than 5%   |

### Mechanical

|                              |   |
|------------------------------|---|
| Case Material                | Stainless Steel                                     |
| Sensing Element/Construction | PZT/Compression                                     |
| Mounting Torque              | 8Nm   |
| Weight                       | 150gms (nominal) body only                          |
| Maximum Cable Length         | 1000 metres   |
| Standard Cable Length        | 5 metres  |
| Screened Cable               | Polyolefin HFFR - length to be specified with order |
| Mounting Threads             | see: 'How To Order' table                           |

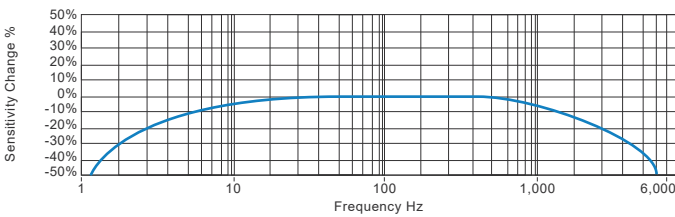
### Electrical

|                  |   |
|------------------|---|
| Current Output   | 4-20mA DC proportional to Velocity Range  |
| Supply Voltage   | 15-30 Volts DC (for 4-20mA)               |
| Settling Time    | 2 seconds                                 |
| Output Impedance | Loop Resistance 600 Ohms max. at 24 Volts |
| Case Isolation   | $>10^8$ Ohms at 500 Volts                 |

### Environmental

|                             |                |
|-----------------------------|----------------|
| Operating Temperature Range | -55 to 130°C   |
| Sealing                     | IP68           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

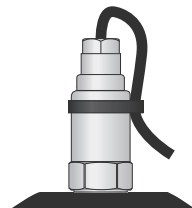
### Typical Frequency Response



### 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

|  |  |   |          |          |  |          |          |   |          |          |  |          |          |          |
|--|--|---|----------|----------|--|----------|----------|---|----------|----------|--|----------|----------|----------|
| <b>Product Prefix</b><br>HS - Hansford Sensors   | <b>Product Series</b><br>420 - Industrial Vibration Sensor | <b>Cable Length (if integral cable)</b><br>QXX - length specified in metres |          |          |  |          |          |   |          |          |  |          |          |          |
| <b>H</b>   | <b>S</b>   | <b>4</b>  | <b>2</b> | <b>0</b> | <b>X</b>   | <b>X</b> | <b>X</b> | <b>X</b>  | <b>X</b> | <b>X</b> | <b>X</b>   | <b>X</b> | <b>X</b> | <b>X</b> |
| <b>Extra Options (if required)</b><br>F - Filtered<br>L - 316L Stainless Steel<br>RT - Temperature Output PT100<br>S - 90° Side Exit<br>T - Temperature Output |  |   |          |          | <b>Velocity Range (RMS unless specified)</b><br>010 - 0-10 mm/sec<br>020 - 0-20 mm/sec<br>025 - 0-25 mm/sec<br>050 - 0-50 mm/sec<br>100 - 0-100 mm/sec |          |          | <b>Cable/Connector</b><br>37 - 4 Core Polyolefin HFFR |          |          | <b>Mounting Threads</b><br>01 - 1/4-28" UNF Female<br>02 - 1/4-28" UNF Male<br>05 - Quick Fit Female<br>06 - M6 x 1mm Male<br>08 - M8 x 1.25mm Male<br>10 - M10 x 1.5mm Male |          |          |          |



www.hansfordsensors.com  
sales@hansfordsensors.com



We reserve the right to alter the specification of this product without prior notice

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