

# HS-100 Accelerometer

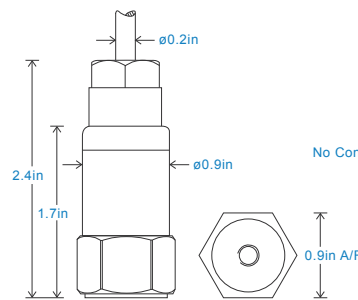
## AC acceleration output via 4 Core Polyolefin HFFR

### Key Features

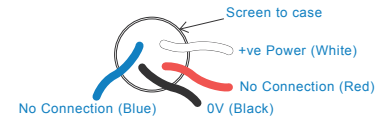
- Halogen free cable
- Most common seller
- For use with data collector
- Customisable features

### Industries

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



### Connection Details



### Technical Performance

|                        |   |
|------------------------|---|
| Mounted Base Resonance | see 'How To Order' table (nominal)  |
| Sensitivity            | see: 'How To Order' table $\pm 10\%$<br>Nominal 80Hz at 72°F  |
| Frequency Response     | 120cpm (2Hz) to 600kcpm (10kHz) $\pm 5\%$<br>90cpm (1.5Hz) to 720kcpm (12kHz) $\pm 10\%$<br>48cpm (0.8Hz) to 900kcpm (15kHz) $\pm 3\text{dB}$ |
| Isolation              | Base isolated   |
| Range                  | see: 'How To Order' table   |
| Transverse Sensitivity | Less than 5%  |

### Mechanical

|                              |   |
|------------------------------|---|
| Case Material                | Stainless Steel                                     |
| Sensing Element/Construction | PZT/Compression                                     |
| Mounting Torque              | 5.9ft. lbs  |
| Weight                       | 3.7 oz. (nominal) body only                         |
| Maximum Cable Length         | 3,280 ft.   |
| Standard Cable Length        | 16 ft.  |
| Screened Cable               | Polyolefin HFFR - length to be specified with order |
| Mounting Threads             | see: 'How To Order' table                           |

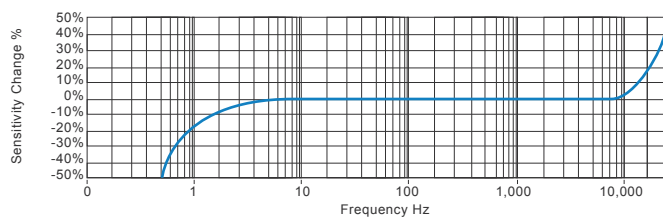
### Electrical

|                     |                           |
|---------------------|---------------------------|
| 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      | $>10^8$ Ohms at 500 Volts |

### Environmental

|                             |                |
|-----------------------------|----------------|
| Operating Temperature Range | -67° to 266°F  |
| Sealing                     | IP68           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

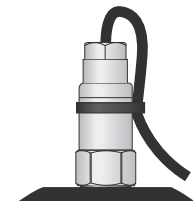
### Typical Frequency Response (at 100mV/g)



### 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 Prefix<br>HS - Hansford Sensors |   |   | Product Series<br>100 - Industrial Vibration Sensor |   |   | Cable Length<br>UXX - length specified in feet |   |   |                    |   |   |                             |   |
|---|---|---|---|---|---|--|---|---|--------------------|---|---|-----------------------------|---|
| H                                       | S | 1 | 0   | 0 | X | X  | X | X | X                  | X | X | X                           | X |
| Extra Options (if required)             |   |   | Sensitivity   |   |   | Range  |   |   | Resonant Frequency |   |   | Cable/Connector             |   |
| F - Filtered                            |   |   | 010 - 10mV/g  |   |   | $\pm 800\text{g}$                              |   |   | 34kHz (2,040kcpm)  |   |   | 37 - 4 Core Polyolefin HFFR |   |
| L - 316L Stainless Steel                |   |   | 030 - 30mV/g  |   |   | $\pm 250\text{g}$                              |   |   | 33kHz (1,980kcpm)  |   |   |                             |   |
| RT - Temperature Output PT100           |   |   | 050 - 50mV/g  |   |   | $\pm 160\text{g}$                              |   |   | 32kHz (1,920kcpm)  |   |   |                             |   |
| T - Temperature Output                  |   |   | 100 - 100mV/g                                       |   |   | $\pm 80\text{g}$                               |   |   | 30kHz (1,800kcpm)  |   |   |                             |   |
| Y - 5% tolerance on sensitivity         |   |   | 250 - 250mV/g                                       |   |   | $\pm 32\text{g}$                               |   |   | 28kHz (1,680kcpm)  |   |   |                             |   |
|   |   |   | 500 - 500mV/g                                       |   |   | $\pm 16\text{g}$                               |   |   | 26kHz (1,560kcpm)  |   |   |                             |   |
|   |   |   |   |   |   |  |   |   |                    |   |   | Mounting Threads            |   |
|   |   |   |   |   |   |  |   |   |                    |   |   | 01 - 1/4-28" UNF Female     |   |
|   |   |   |   |   |   |  |   |   |                    |   |   | 02 - 1/4-28" UNF Male       |   |
|   |   |   |   |   |   |  |   |   |                    |   |   | 05 - Quick Fit Female       |   |
|   |   |   |   |   |   |  |   |   |                    |   |   | 06 - M6 x 1mm Male          |   |
|   |   |   |   |   |   |  |   |   |                    |   |   | 08 - M8 x 1.25mm Male       |   |
|   |   |   |   |   |   |  |   |   |                    |   |   | 10 - M10 x 1.5mm Male       |   |



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

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