

# HS-100F Accelerometer

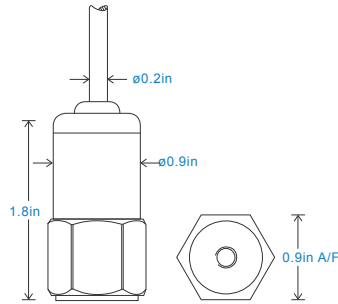
## AC acceleration output via Braided Cable

### Key Features

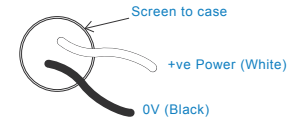
- Most common seller
- For use with data collector
- Customizable features

### 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     | 90cpm (1.5Hz) to 600kcpm (10kHz) $\pm 5\%$<br>30cpm (0.5Hz) to 720kcpm (12kHz) $\pm 10\%$<br>12cpm (0.2Hz) to 900kcpm (15kHz) $\pm 3dB$ |
| 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              | 8Nm   |
| Weight                       | 106gms (nominal) body only                  |
| Maximum Cable Length         | 1000 metres                                 |
| Standard Cable Length        | 5 metres                                    |
| Shielded Cable               | Braided - length to be specified with order |
| Mounting Threads             | see: 'How To Order' table                   |

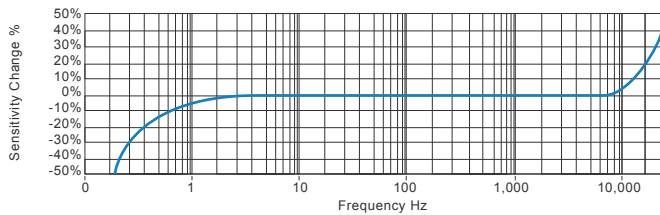
### Electrical

|                    |                           |
|--------------------|---------------------------|
| 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 284°F   |
| Sealing                     | IP65           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

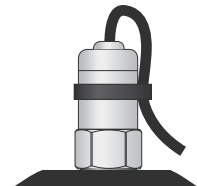
### Typical Frequency Response (at 100mV/g)



### 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

|  |  |   |   |  |   |   |          |          |          |          |          |          |          |          |
|--|--|---|---|--|---|---|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>Product Prefix</b><br>HS - Hansford Sensors   | <b>Product Series</b><br>100 - Industrial Vibration Sensor | <b>Cable Length</b><br>UXX - length specified in feet   |   |  |   |   |          |          |          |          |          |          |          |          |
| <b>H</b>   | <b>S</b>   | <b>1</b>  | <b>0</b>  | <b>0</b>   | <b>F</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>   |  | <b>Sensitivity</b>  | <b>Range</b>  | <b>Resonant Frequency</b>  | <b>Cable/Connector</b>  | <b>Mounting Threads</b>   |          |          |          |          |          |          |          |          |
| F - Filtered<br>I - Intrinsically Safe<br>L - 316L Stainless Steel<br>RT - Temperature Output PT100<br>T - Temperature Output<br>Y - 5% tolerance on sensitivity |  | 010 - 10mV/g<br>030 - 30mV/g<br>050 - 50mV/g<br>100 - 100mV/g<br>250 - 250mV/g<br>500 - 500mV/g | $\pm 800g$<br>$\pm 250g$<br>$\pm 160g$<br>$\pm 80g$<br>$\pm 32g$<br>$\pm 16g$ | 1,680kcpm (28kHz)<br>1,560kcpm (26kHz)<br>1,440kcpm (24kHz)<br>1,320kcpm (22kHz)<br>1,200kcpm (20kHz)<br>1,080kcpm (18kHz) | 01 - PUR<br>02 - Braided<br>07 - Silicon<br>08 - Flame Retardant<br>50 - 2 Pin MS<br>54 - M12 | 01 - ¼-28" UNF Female<br>02 - ¼-28" 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 |          |          |          |          |          |          |          |          |



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

TS125U.5

