

# HS-150ST Premium Accelerometer

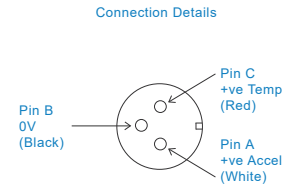
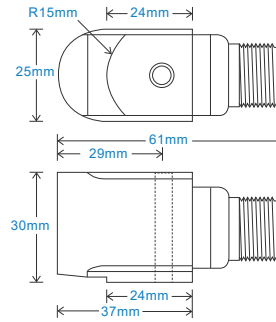
AC acceleration and temperature output via 3 Pin MS Connector

## Key Features

- Temperature output
- Side entry for easy access
- Premium design

## Industries

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



## Technical Performance

|                        |  |
|------------------------|--|
| Mounted Base Resonance | see 'How To Order' table (nominal)   |
| Sensitivity            | see: 'How To Order' table $\pm 10\%$<br>Nominal 80Hz at 22°C   |
| Frequency Response     | 1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$<br>0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$<br>0.2Hz (12cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$ |
| Isolation              | Base isolated  |
| Range                  | see: 'How To Order' table  |
| Temperature Output     | 10 mV/°C standard 100°C - Option 130°C   |
| Transverse Sensitivity | Less than 5%   |

## Mechanical

|                              |   |
|------------------------------|---|
| Case Material                | Stainless Steel   |
| Sensing Element/Construction | PZT/Shear   |
| Mounting Torque              | 8Nm   |
| Mounting Bolt Provided       | see: 'How To Order' table x 35mm long   |
| Weight                       | 205gms (nominal) body only  |
| Screened Cable Assembly      | see: <a href="http://www.hansfordsensors.com">www.hansfordsensors.com</a> for options |
| Connector                    | HS-AA005 - non-booted<br>HS-AA068 or HS-0069 - booted                                 |
| Mounting Threads             | see: 'How To Order' table   |

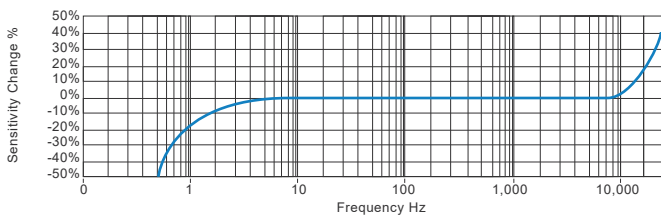
## Electrical

|                     |                           |
|---------------------|---------------------------|
| Excitation Voltage: | 18-30Volts DC             |
| Electrical Noise    | 0.1mg max                 |
| Current Range       | 0.5mA to 8mA              |
| Bias Voltage        | 10 - 12 Volts DC          |
| Settling Time       | 1 second                  |
| Output Impedance    | 200 Ohms max.             |
| Case Isolation      | $>10^8$ Ohms at 500 Volts |

## Environmental

|                             |                |
|-----------------------------|----------------|
| Operating Temperature Range | -55 to 150°C   |
| Sealing                     | IP68           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

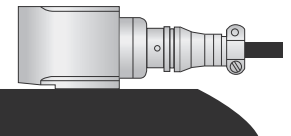
## Typical Frequency Response (at 100mV/g)



## 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

|  |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>Product Prefix</b><br>HS - Hansford Sensors   | <b>Product Series</b><br>150 - Premium Industrial Vibration Sensor  |   |   |   |   |   |   |   |   |   |   |   |   |
|  | H   | S | 1   | 5 | 0   | S | T   | X | X   | X | X | X | X |
| <b>Extra Options (if required)</b><br>F - Filtered<br>L - 316L Stainless Steel<br>S - 90° Side Exit<br>T - Temperature Output<br>Y - 5% tolerance on sensitivity | <b>Sensitivity</b><br>010 - 10mV/g<br>030 - 30mV/g<br>050 - 50mV/g<br>100 - 100mV/g<br>250 - 250mV/g<br>500 - 500mV/g |   | <b>Range</b><br>$\pm 800\text{g}$<br>$\pm 250\text{g}$<br>$\pm 160\text{g}$<br>$\pm 80\text{g}$<br>$\pm 32\text{g}$<br>$\pm 16\text{g}$ |   | <b>Resonant Frequency</b><br>34kHz (2,040kcpm)<br>33kHz (1,980kcpm)<br>32kHz (1,920kcpm)<br>30kHz (1,800kcpm)<br>28kHz (1,680kcpm)<br>26kHz (1,560kcpm) |   | <b>Cable/Connector</b><br>01 - PUR<br>03 - Braided<br>07 - Silicon<br>15 - Flame Retardant<br>52 - 3 Pin MS<br>54 - M12 |   | <b>Mounting Threads</b><br>02 - 1/4-28" UNF Male<br>06 - M6 x 1mm Male<br>08 - M8 x 1.25mm Male |   |   |   |   |



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[www.hansfordsensors.com.cn](http://www.hansfordsensors.com.cn)

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