

# HS-100ST Accelerometer

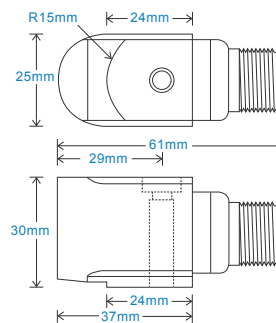
## AC acceleration and temperature output via 3 Pin MS Connector

### Key Features

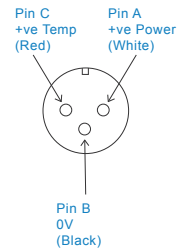
- Temperature output
- Side entry for easy access
- For use with data collector

### 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 22°C  |
| Frequency Response     | 2Hz (120cpm) to 10kHz (600kcpm) $\pm 5\%$<br>1.5Hz (90cpm) to 12kHz (720kcpm) $\pm 10\%$<br>0.8Hz (48cpm) 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 140°C  |
| Transverse Sensitivity | Less than 5%  |

### Mechanical

|                              |   |
|------------------------------|---|
| Case Material                | Stainless Steel   |
| Sensing Element/Construction | PZT/Compression   |
| Mounting Torque              | 8Nm   |
| Mounting Bolt Provided       | see: 'How To Order' table x 30mm long   |
| Weight                       | 185gms (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-AA069 - booted                                |
| Mounting Threads             | see: 'How To Order' table   |

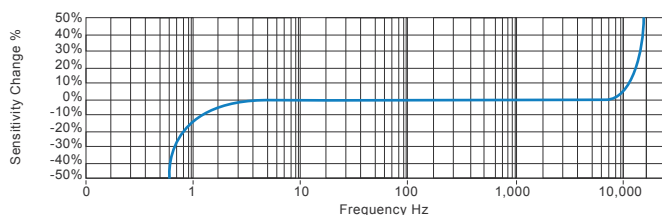
### Electrical

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

### Environmental

|                             |                |
|-----------------------------|----------------|
| Operating Temperature Range | -55 to 140°C   |
| Sealing                     | IP68           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

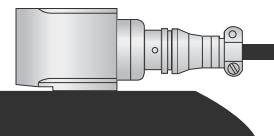
### Typical Frequency Response (at 100mV/g)



### 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

| Product Prefix                  | Product Series                    |                   |                    |                      |                       |   |   |   |   |   |   |   |
|---------------------------------|-----------------------------------|-------------------|--------------------|----------------------|-----------------------|---|---|---|---|---|---|---|
| HS - Hansford Sensors           | 100 - Industrial Vibration Sensor | H                 | S                  | 1                    | 0                     | 0 | S | T | X | X | X | X |
| Extra Options (if required)     | Sensitivity                       | Range             | Resonant Frequency | Cable/Connector      | Mounting Threads      |   |   |   |   |   |   |   |
| F - Filtered                    | 010 - 10mV/g                      | $\pm 800\text{g}$ | 27kHz (1,620kcpm)  | 01 - PUR             | 02 - 1/4-28" UNF Male |   |   |   |   |   |   |   |
| L - 316L Stainless Steel        | 030 - 30mV/g                      | $\pm 250\text{g}$ | 25kHz (1,500kcpm)  | 03 - Braided         | 06 - M6 x 1mm Male    |   |   |   |   |   |   |   |
| S - 90° Side Exit               | 050 - 50mV/g                      | $\pm 160\text{g}$ | 23kHz (1,380kcpm)  | 07 - Silicon         | 08 - M8 x 1.25mm Male |   |   |   |   |   |   |   |
| T - Temperature Output          | 100 - 100mV/g                     | $\pm 80\text{g}$  | 21kHz (1,260kcpm)  | 15 - Flame Retardant |                       |   |   |   |   |   |   |   |
| Y - 5% tolerance on sensitivity | 250 - 250mV/g                     | $\pm 32\text{g}$  | 19kHz (1,140kcpm)  | 52 - 3 Pin MS        |                       |   |   |   |   |   |   |   |
|                                 | 500 - 500mV/g                     | $\pm 16\text{g}$  | 17kHz (1,020kcpm)  | 54 - M12             |                       |   |   |   |   |   |   |   |



[www.hansfordsensors.com](http://www.hansfordsensors.com)  
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We reserve the right to alter the specification of this product without prior notice

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