

# HS-100S Accelerometer

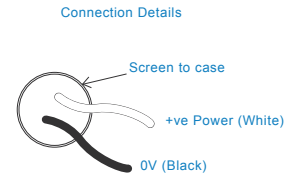
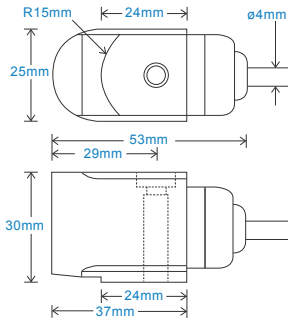
## AC acceleration output via Braided Cable

### Key Features

- For use with data collector
- Side entry for easy access
- Customisable features

### 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     | 2Hz (120cpm) to 10kHz (600kcpm) $\pm 5\%$<br>1.5Hz (90cpm) to 12kHz (720kcpm) $\pm 10\%$<br>0.8Hz (48cpm) to 15kHz (900kcpm) $\pm 3dB$ |
| 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   |
| Mounting Bolt provided       | see: 'How To Order' table x 30mm long       |
| Weight                       | 185gms (nominal)                            |
| Maximum Cable Length         | 1000 metres                                 |
| Standard Cable Length        | 5 metres                                    |
| Screened Cable               | Braided - length to be specified with order |
| Mounting Threads             | see: 'How To Order' table                   |

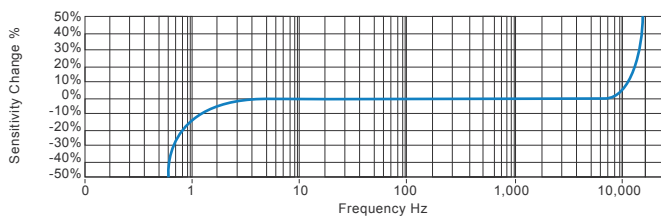
### Electrical

|                  |                           |
|------------------|---------------------------|
| 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                     | IP65           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

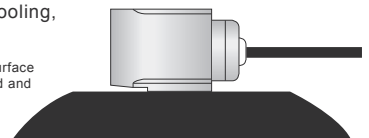
### Typical Frequency Response (at 100mV/g)



### 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 (if integral cable)</b><br>QXX - length specified in metres |          |          |   |   |   |   |          |          |   |          |          |          |
| <b>H</b>  | <b>S</b>   | <b>1</b>  | <b>0</b> | <b>0</b> | <b>S</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<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>$\pm 800g$<br>$\pm 250g$<br>$\pm 160g$<br>$\pm 80g$<br>$\pm 32g$<br>$\pm 16g$ | <b>Resonant Frequency</b><br>27kHz (1,620kcpm)<br>25kHz (1,500kcpm)<br>23kHz (1,380kcpm)<br>21kHz (1,260kcpm)<br>19kHz (1,140kcpm)<br>17kHz (1,020kcpm) | <b>Cable/Connector</b><br>01 - PUR<br>02 - Braided<br>07 - Silicon<br>08 - Flame Retardant<br>50 - 2 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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