

# HS-420S Accelerometer

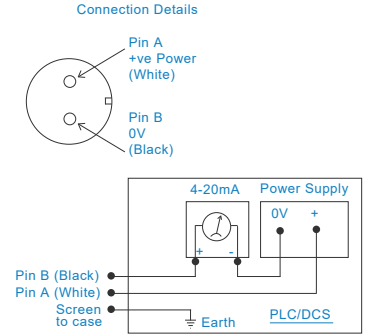
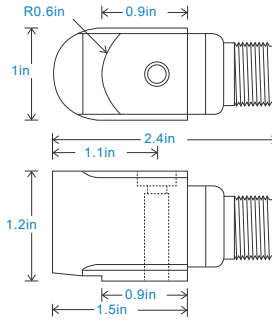
## 4-20mA velocity output via 2 Pin MS Connector

### Key Features

- For use with PLC/DCS systems
- Side entry for easy access
- Customizable features

### Industries

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



### Technical Performance

|                        |  |
|------------------------|--|
| Mounted Base Resonance | 5kHz min   |
| Velocity Ranges        | see: 'How To Order' table $\pm 10\%$<br>Nominal 80Hz at 72°F |
| Frequency Response     | 600cpm (10Hz) to 60kcpm (1kHz) $\pm 5\%$ - ISO10816          |
| Isolation              | Base isolated  |
| Range                  | 50g peak   |
| Transverse Sensitivity | Less than 5%   |

### Mechanical

|                              |   |
|------------------------------|---|
| Case Material                | Stainless Steel   |
| Sensing Element/Construction | PZT/Shear   |
| Mounting Torque              | 5.9ft. lbs  |
| Mounting Bolt Provided       | see: 'How To Order' table x 1.2in long  |
| Weight                       | 6.5 oz. (nominal) body only   |
| Shielded Cable Assembly      | see: <a href="http://www.hansfordsensors.com">www.hansfordsensors.com</a> for options |
| Connector                    | HS-AA004 - non-booted<br>HS-AA053 or HS-0054 - booted                                 |
| Mounting Threads             | see: 'How To Order' table   |

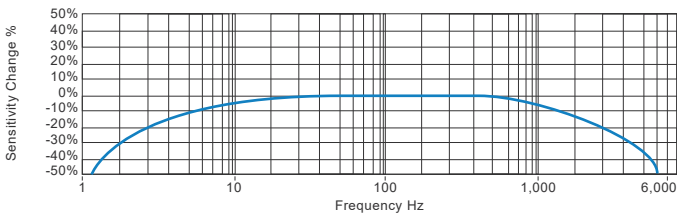
### Electrical

|                  |   |
|------------------|---|
| Current Output   | 4-20mA DC proportional to Velocity Range  |
| Supply Voltage   | 15-30 Volts DC (for 4-20mA)               |
| Settling Time    | 1 second                                  |
| Output Impedance | Loop Resistance 600 Ohms max. at 24 Volts |
| Case Isolation   | $>10^8$ Ohms at 500 Volts                 |

### Environmental

|                             |                |
|-----------------------------|----------------|
| Operating Temperature Range | -13 to 248°F   |
| Sealing                     | IP68           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

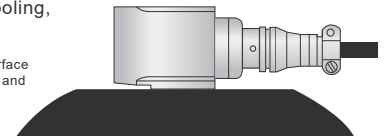
### Typical Frequency Response



### 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>420 - Industrial Vibration Sensor |   |          |  |          |          |   |          |          |  |          |
| <b>H</b>   | <b>S</b>   | <b>4</b>  | <b>2</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>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 |  | U - Imperial Range<br>UP - Imperial Peak Range<br>UPP - Imperial Peak to Peak Range |          | <b>Velocity Range (RMS unless specified)</b><br>012 - 1/2 IPS<br>025 - 1 IPS<br>050 - 2 IPS<br>100 - 4 IPS |          |          | <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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We reserve the right to alter the specification of this product without prior notice  
TS230U.6