

# HS-420SRT Accelerometer

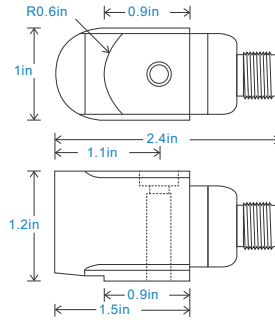
## 4-20mA velocity and PT100 temperature output via M12 Connector

### Key Features

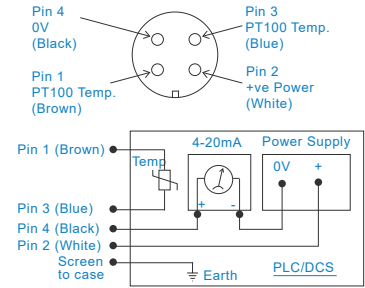
- For use with PLC/DCS systems
- PT100 temperature output

### Industries

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



Connection Details



### 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   |
| Temperature Output     | PT100 (100 Ohms)   |
| 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      | HS-AC010 - straight<br>HS-AC011 - right angle |
| Mounting Threads             | see: 'How To Order' table                     |

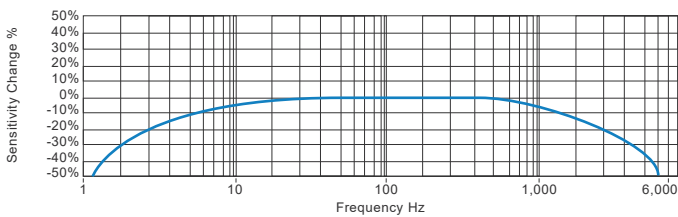
### Electrical

|                  |   |
|------------------|---|
| 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 194°F   |
| Sealing                     | IP67           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

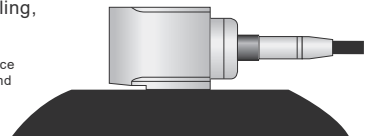
### Typical Frequency Response



### 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

| Product Prefix                |   | Product Series                    |   |   |   |                                       |   |   |                 |   |   |                       |   |
|-------------------------------|---|-----------------------------------|---|---|---|---------------------------------------|---|---|-----------------|---|---|-----------------------|---|
| HS - Hansford Sensors         |   | 420 - Industrial Vibration Sensor |   |   |   |                                       |   |   |                 |   |   |                       |   |
| H                             | S | 4                                 | 2 | 0 | S | R                                     | T | X | X               | X | X | X                     | X |
| Extra Options (if required)   |   |                                   |   |   |   | Velocity Range (RMS unless specified) |   |   | Cable/Connector |   |   | Mounting Threads      |   |
| F - Filtered                  |   | U - Imperial Range                |   |   |   | 012 - ½ IPS                           |   |   | 01 - PUR        |   |   | 02 - ¼-28" UNF Male   |   |
| L - 316L Stainless Steel      |   | UP - Imperial Peak Range          |   |   |   | 025 - 1 IPS                           |   |   | 54 - M12        |   |   | 06 - M6 x 1mm Male    |   |
| RT - Temperature Output PT100 |   | UPP - Imperial Peak to Peak Range |   |   |   | 050 - 2 IPS                           |   |   |                 |   |   | 08 - M8 x 1.25mm Male |   |
| S - 90° Side Exit             |   |                                   |   |   |   | 100 - 4 IPS                           |   |   |                 |   |   |                       |   |



[www.hansfordsensors.com](http://www.hansfordsensors.com)  
[sales@hansfordsensors.com](mailto:sales@hansfordsensors.com)

We reserve the right to alter the specification of this product without prior notice  
TS214U.9

