

# HS-422 Accelerometer

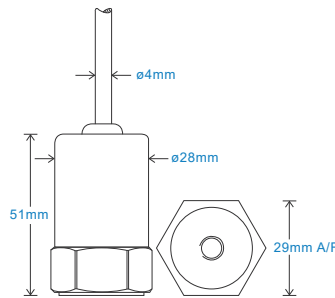
## 4-20mA acceleration output via Braided Cable

### Key Features

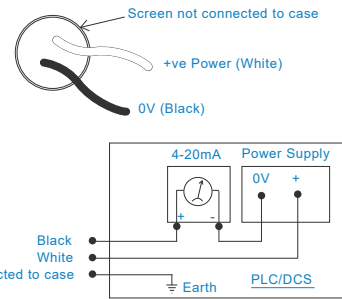
- 4-20mA acceleration output
- For use with PLC/DCS systems
- Customisable features

### Industries

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



### Connection Details



### Technical Performance

|                        |  |
|------------------------|--|
| Mounted Base Resonance | 10kHz min  |
| Acceleration Ranges    | see: 'How To Order' table $\pm 10\%$<br>Nominal 80Hz at 22°C |
| Frequency Response     | 10Hz (600cpm) to 5kHz (300kcpm) $\pm 5\%$<br>- ISO10816      |
| 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   |
| Weight                       | 150gms (nominal) body only                  |
| 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                   |

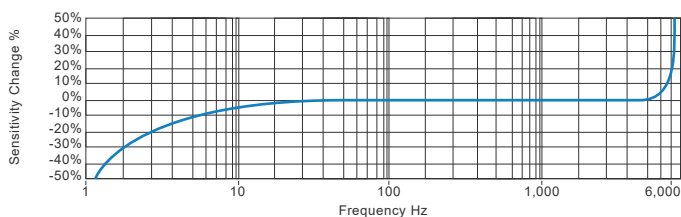
### Electrical

|                  |   |
|------------------|---|
| Current Output   | 4-20mA DC proportional to acceleration    |
| Supply Voltage   | 15-30 Volts DC (for 4-20mA)               |
| Settling Time    | 2 seconds                                 |
| Output Impedance | Loop Resistance 600 Ohms max. at 24 Volts |
| Case Isolation   | $>10^8$ Ohms at 500 Volts                 |

### Environmental

|                             |                |
|-----------------------------|----------------|
| Operating Temperature Range | -25 to 120°C   |
| Sealing                     | IP65           |
| Maximum Shock               | 5000g          |
| EMC                         | EN61326-1:2013 |

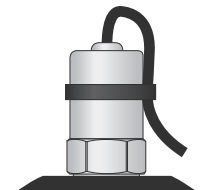
### Typical Frequency Response



### 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<br>HS - Hansford Sensors  |   | Product Series<br>422 - Industrial Vibration Sensor |   | Cable Length (if integral cable)<br>QXX - length specified in metres |  |   |   |   |   |   |   |   |   |
|--|---|---|---|--|--|---|---|---|---|---|---|---|---|
| H  | S | 4   | 2 | 2  | X  | X | X | X | X | X   | X | X | X   |
| Extra Options (if required)  |   |   |   |  | Acceleration Range<br>(RMS unless specified) |   |   |   |   | Cable/Connector   |   |   | Mounting Threads  |
| F - Filtered<br>L - 316L Stainless Steel<br>RT - Temperature Output PT100<br>S - 90° Side Exit<br>T - Temperature Output |   |   |   |  | P - Peak Range<br>PP - Peak to Peak Range    |   |   |   |   | 01 - PUR<br>02 - Braided<br>07 - Silicon<br>08 - Flame Retardant<br>50 - 2 Pin MS<br>54 - M12 |   |   | 01 - 1/4-28" UNF Female<br>02 - 1/4-28" UNF Male<br>05 - Quick Fit Female<br>06 - M6 x 1mm Male<br>08 - M8 x 1.25mm Male<br>10 - M10 x 1.5mm Male |