# HS-422 Accelerometer

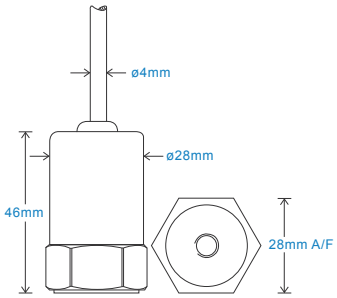
## 4-20mA acceleration output via Flame Retardant Cable

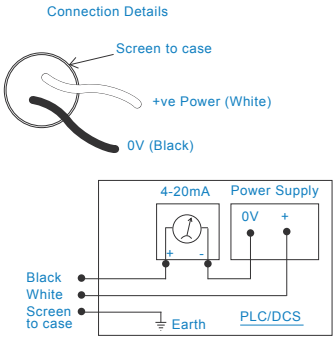
### Key Features

- 4-20mA acceleration output
- For use with PLC/DCS systems
- Low smoke, halogen free cable

### Industries

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




## Technical Performance

| | |
|---|---|
| Mounted Base Resonance | 10kHz min |
| Acceleration Ranges | see: 'How To Order' table ±10% |
| | Nominal 80Hz at 22°C |
| Frequency Response | 10Hz (600cpm) to 5kHz (300kcpm) ± 5% |
| | - 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) |
| Maximum Cable Length | 1000 metres |
| Standard Cable Length | 5 metres |
| Screened Cable | Flame Retardant - length to be specified with order |
| Mounting Threads | see: 'How To Order' table |

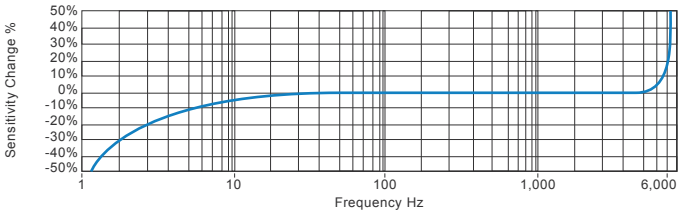
## Electrical

| | |
|---|---|
| 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 90°C |
| Sealing | IP65 |
| Maximum Shock | 5000g |
| EMC | EN61326-1:2013 |

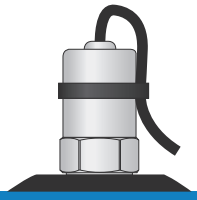
## Typical Frequency Response




## 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 | Product Series | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HS - Hansford Sensors | 422 - Industrial Vibration Sensor | | | | | | | | | | | | Cable Length (if integral cable) QXX - length specified in metres | | |
| H | S | 4 | 2 | 2 | X | X | X | X | X | X | X | X | X | X | X |

**Extra Options (if required)**
F - Filtered
L - 316L Stainless Steel
RT - Temperature Output PT100
S - 90° Side Exit
T - Temperature Output
P - Peak Range
PP - Peak to Peak Range

**Acceleration Range (RMS unless specified)**
001 - 0-1g
002 - 0-2g
005 - 0-5g
010 - 0-10g
100 - 0-100g

**Cable/Connector**
01 - PUR
02 - Braided
07 - Silicon
08 - Flame Retardant
50 - 2 Pin MS
54 - M12

**Mounting Threads**
01 - ¼-28" UNF Female
02 - ¼-28" UNF Male
05 - Quick Fit Female
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male
10 - M10 x 1.5mm Male

Hansford Sensors
*Excellence in Vibration Monitoring*

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



Safety Integrity Level SIL