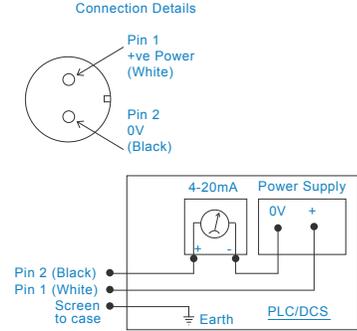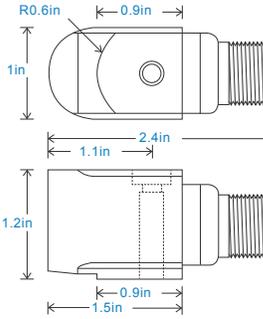# HS-422S Accelerometer
## 4-20mA acceleration output via 2 Pin MS Connector

### Key Features
- 4-20mA acceleration output
- For use with PLC/DCS systems
- Side entry for easy access

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

**Connection Details**

Pin 1 +ve Power (White)
Pin 2 0V (Black)

4-20mA  Power Supply
0V  +
Pin 2 (Black)
Pin 1 (White)
Screen to case
Earth
PLC/DCS

## Technical Performance

| | |
|---|---|
| Mounted Base Resonance | 10kHz min |
| Acceleration Ranges | see: 'How To Order' table ±10% |
| | Nominal 80Hz at 72°F |
| Frequency Response | 600cpm (10Hz) to 300kcpm (5kHz) ± 5% |
| | - ISO10816 |
| Isolation | Base isolated |
| Range | see: 'How To Order' table |
| Transverse Sensitivity | Less than 5% |

## Mechanical

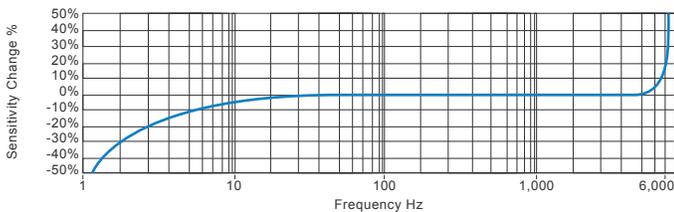| | |
|---|---|
| Case Material | Stainless Steel |
| Sensing Element/Construction | PZT/Shear |
| Mounting Torque | 5.9ft. lbs |
| Mounting Bolt Provided | see: 'How To Order' table x 1.2in long |
| Weight | 6.5 oz. (nominal) |
| Sheilded Cable Assembly | see: www.hansfordsensors.com for options |
| Connector | HS-AA004 - non-booted |
| | HS-AA053 or HS-0054 - booted |
| 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 | 1 second |
| Output Impedance | Loop Resistance 600 Ohms max. at 24 Volts |
| Case Isolation | $>10^8$ Ohms at 500 Volts |

## Environmental

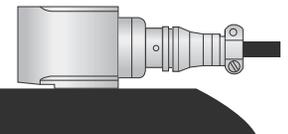| | |
|---|---|
| Operating Temperature Range | -13 to 194°F |
| Sealing | IP68 |
| Maximum Shock | 5000g |
| EMC | EN61326-1:2013 |

## Typical Frequency Response



Sensitivity Change %
Frequency Hz

## 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**
HS - Hansford Sensors

**Product Series**
422 - Industrial Vibration Sensor

**Cable Length (if integral cable)**
UXX - length specified in feet

| H | S | 4 | 2 | 2 | S | 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
U   - Imperial Range
UP  - Imperial Peak Range
UPP - Imperial 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**
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

## Hansford Sensors
### Excellence in Vibration Monitoring

Safety Integrity Level SIL