# HS-150S Premium Accelerometer

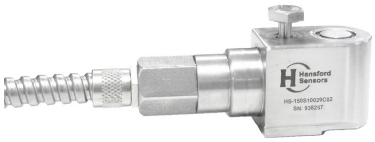
**AC acceleration output via 3 Core Silicon Cable with Protective Over-Sheath and Removable Stainless Steel Conduit**

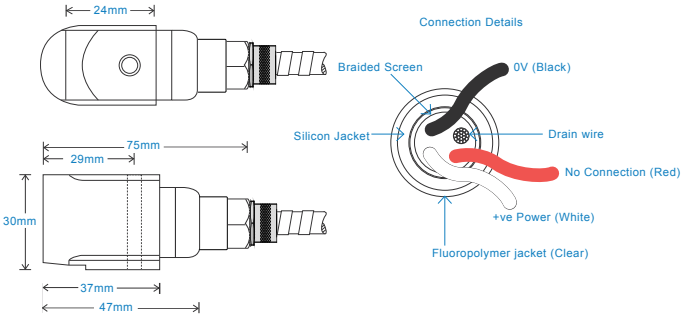
## Key Features

- Waterproof to IP68
- Side entry for easy access
- Removable Stainless Steel Conduit

## Industries

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






## Technical Performance

| | |
|---|---|
| Mounted Base Resonance | see 'How To Order' table (nominal) |
| Sensitivity | see: 'How To Order' table ±10% |
| | Nominal 80Hz at 22°C |
| Frequency Response | 1.5Hz (90cpm) to 10kHz (600kcpm) ± 5% |
| | 0.5Hz (30cpm) to 12kHz (720kcpm) ± 10% |
| | 0.2Hz (12cpm) to 15kHz (900kcpm) ± 3dB |
| 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 | 8Nm |
| Mounting Bolt provided | see: 'How To Order' table x 35mm long |
| Weight | 205gms (nominal) body only |
| Maximum Cable Length | 1000 metres |
| Standard Cable Length | 5 metres |
| Screened Cable | Silicon - length to be specified with order |
| Mounting Threads | see: 'How To Order' table |

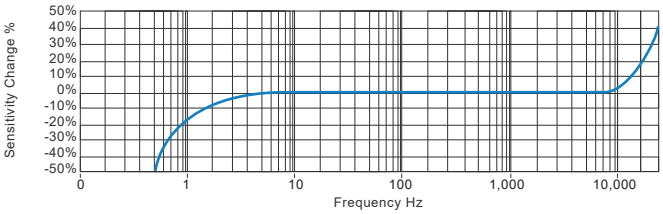
## Electrical

| | |
|---|---|
| Excitation Voltage: | 18-30Volts DC |
| Electrical Noise | 0.1mg max |
| Current Range | 0.5mA to 8mA |
| Bias Voltage | 10 - 12 Volts DC |
| Settling Time | 2 seconds |
| Output Impedance | 200 Ohms max. |
| Case Isolation | >$10^8$ Ohms at 500 Volts |

## Environmental

| | |
|---|---|
| Operating Temperature Range | -50 to 150°C |
| Sealing | IP68 |
| Maximum Shock | 5000g |
| EMC | EN61326-1:2013 |

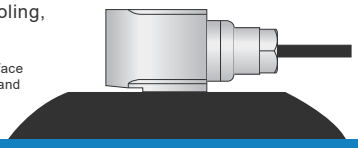
## Typical Frequency Response (at 100mV/g)




## 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**
150 - Premium Industrial Vibration Sensor

**Cable Length (if integral cable)**
QXX - length specified in metres

| H | S | 1 | 5 | 0 | S | X | X | X | X | X | X | X | X | X | X |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Extra Options (if required)**
F - Filtered
RT - Temperature Output PT100
S - 90° Side Exit
T - Temperature Output
Y - 5% tolerance on sensitivity

| Sensitivity | | Range | Resonant Frequency | |
|---|---|---|---|---|
| 010 | - 10mV/g | ±800g | 34kHz | (2,040kcpm) |
| 030 | - 30mV/g | ±250g | 33kHz | (1,980kcpm) |
| 050 | - 50mV/g | ±160g | 32kHz | (1,920kcpm) |
| 100 | - 100mV/g | ±80g | 30kHz | (1,800kcpm) |
| 250 | - 250mV/g | ±32g | 28kHz | (1,680kcpm) |
| 500 | - 500mV/g | ±16g | 26kHz | (1,560kcpm) |

**Cable/Connector**
29C - Silicon Cable with Over-Sheath and Removable Conduit

**Mounting Threads**
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

Hansford Sensors
*Excellence in Vibration Monitoring*


www.hansfordsensors.com
sales@hansfordsensors.com



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