# HS-150ST Premium Accelerometer

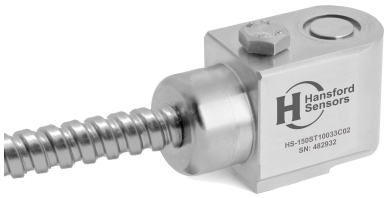
## AC acceleration and temperature output via FEP Cable with Protective Conduit

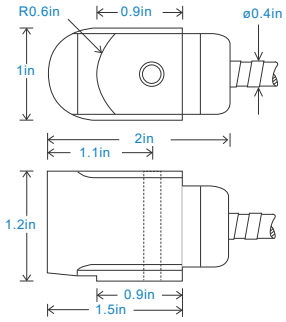
### Key Features

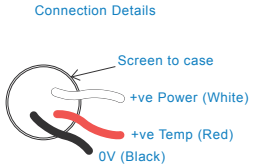
- Resistant to oil
- Protective Conduit

### 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 72°F |
| Frequency Response | 90cpm (1.5Hz) to 600kcpm (10kHz) ± 5% |
| | 30cpm (0.5Hz) to 720kcpm (12kHz) ± 10% |
| | 12cpm (0.2Hz) to 900kcpm (15kHz) ± 3dB |
| Isolation | Base isolated |
| Range | see: 'How To Order' table |
| Temperature Output | 10 mV/ºC standard 212°F - Option 300°F |
| Transverse Sensitivity | Less than 5% |

## Mechanical

| | |
|---|---|
| Case Material | Stainless Steel |
| Sensing Element/Construction | PZT/Shear |
| Mounting Torque | 5.9ft. lbs |
| Weight | see: 'How To Order' table x 1.2in long |
| Sheilded Cable Assembly | 6.5 oz. (nominal) body only |
| Maximum Cable Lengths | 3,280ft |
| Standard Cable Lengths | 16ft |
| Mounting Threads | see 'How To Order' Table |
| Conduit Material | 316 Stainless Steel |
| Conduit Length | Conduit Length is approx. 1.6ft shorter than the cable |

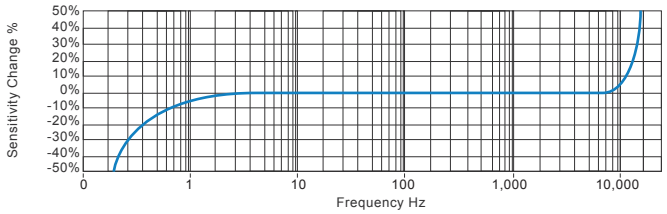
## Electrical

| | |
|---|---|
| Electrical Noise | 0.1mg max |
| Current Range | 0.5mA to 8mA |
| Bias Voltage | 10 - 12 Volts DC |
| Settling Time | 1 second |
| Output Impedance | 200 Ohms max. |
| Case Isolation | >$10^8$ Ohms at 500 Volts |

## Environmental

| | |
|---|---|
| Operating Temperature Range | -22 to 300°F |
| Sealing | IP65 |
| Maximum Shock | 5000g |
| EMC | EN61326-1:2013 |

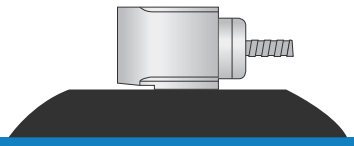
## Typical Frequency Response (at 100mV/g)




## 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)**
UXX - length specified in feet

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

**Extra Options (if required)**
F - Filtered
HT - High Temperature maximum 300°F
L - 316L Stainless Steel
RT - Temperature Output PT100
S - 90° Side Exit
T - Temperature Output
Y - 5% tolerance on sensitivity

| Sensitivity | | Range | Resonant Frequency | |
|---|---|---|---|---|
| 010 | - 10mV/g | ±800g | 1,620kcpm | (27kHz) |
| 030 | - 30mV/g | ±250g | 1,500kcpm | (25kHz) |
| 050 | - 50mV/g | ±160g | 1,380kcpm | (23kHz) |
| 100 | - 100mV/g | ±80g | 1,260kcpm | (21kHz) |
| 250 | - 250mV/g | ±32g | 1,140kcpm | (19kHz) |
| 500 | - 500mV/g | ±16g | 1,020kcpm | (17kHz) |

**Cable/Connector**
33C - FEP with Protective 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*

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