# HS-107S Accelerometer

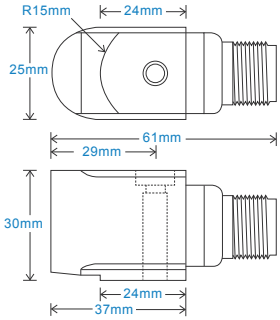
## AC acceleration output via 2 Pin MS Connector

### Key Features

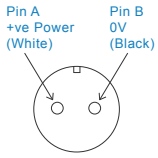
- Line Drive
- For use with data collector
- Customisable features
- Side entry for easy access

### Industries

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




Connection Details




## 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 | 2Hz (120cpm) to 10kHz (600kcpm) ± 5% |
| | 1.5Hz (90cpm) to 12kHz (720kcpm) ± 10% |
| | 0.8Hz (48cpm) to 15kHz (900kcpm) ± 3dB |
| Isolation | Base isolated |
| Range | see: 'How To Order' table |
| Transverse Sensitivity | Less than 5% |

## Mechanical

| | |
|---|---|
| Case Material | 316L Stainless Steel |
| Sensing Element/Construction | PZT/Compression |
| Mounting Torque | 8Nm |
| Mounting Bolt provided | see: 'How To Order' table x 30mm long |
| Weight | 185gms (nominal) body only |
| Screened Cable Assembly | see: www.hansfordsensors.com for options |
| Connector | HS-AA004 - non-booted |
| | HS-AA053 or HS-AA054 - booted |
| Mounting Threads | see: 'How To Order' table |

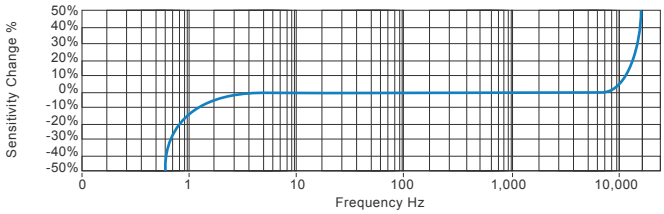
## Electrical

| | |
|---|---|
| Electrical Noise | 0.1mg max |
| Supply Voltage | 7.5 - 24Volts DC |
| Bias Current | 3.5mA |
| Settling Time | 2 seconds |
| Output Impedance | 200 Ohms max. |
| Case Isolation | $>10^8$ Ohms at 500 Volts |

## Environmental

| | |
|---|---|
| Operating Temperature Range | -55 to 140ºC |
| Sealing | IP68 |
| Maximum Shock | 5000g |
| EMC | EN61326-1:2013 |

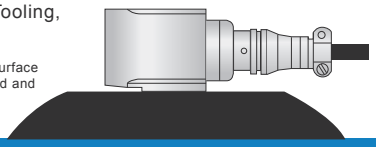
## Typical Frequency Response (at 100mV/g)




## 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**
107 - Industrial Vibration Sensor

| H | S | 1 | 0 | 7 | S | 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 | - 10µA/g | ±80g | 28kHz | (1,680kcpm) |
| 050 | - 50µA/g | ±16g | 24kHz | (1,440kcpm) |

(other options available on request)

**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*

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We reserve the right to alter the specification of this product without prior notice TS1098.4