

# HS-100S Accelerometer

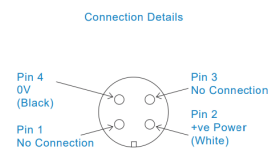
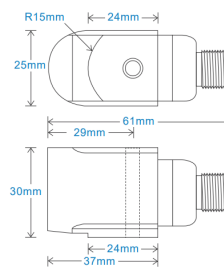
## AC acceleration output via M12 Connector

### Key Features

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

### 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 $\pm 10\%$ Nominal 80Hz at 22°C
Frequency Response	2Hz (120cpm) to 10kHz (600kcpm) $\pm 5\%$ 1.5Hz (90cpm) to 12kHz (720kcpm) $\pm 10\%$ 0.8Hz (48cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$
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
Mounting Bolt provided	see: 'How To Order' table x 35mm long
Weight	205gms (nominal) body only
Maximum Cable Length	n/a
Standard Cable Length	n/a
Screened Cable	n/a
Screened Cable Assembly	see: <a href="http://www.hansfordsensors.com">www.hansfordsensors.com</a> for options
Connector	HS-AC010 - straight or HS-AC011 - right angle
Mounting Threads	see: 'How To Order' table
Submersible Depth	n/a

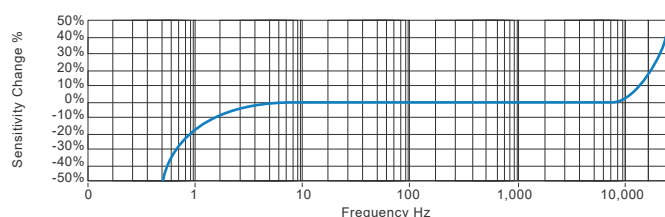
### Electrical

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	-55 to 140°C
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

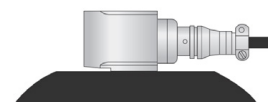
### Typical Frequency Response (at 100mV/g)



### 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 100 - Industrial Vibration Sensor										
H	S	1	0	0	S	X	X	X	X	X	X
Extra Options (If required) F - Filtered I - Intrinsically Safe RT - Temperature Output PT102 T - Temperature Output Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g		Range $\pm 800\text{g}$ $\pm 250\text{g}$ $\pm 160\text{g}$ $\pm 80\text{g}$ $\pm 32\text{g}$ $\pm 16\text{g}$		Resonant Frequency 34kHz (2,040kcpm) 33kHz (1,980kcpm) 32kHz (1,920kcpm) 30kHz (1,800kcpm) 28kHz (1,680kcpm) 26kHz (1,560kcpm)		Cable/Connector 01 - PUR 02 - Braided 08 - Flame Retardant 50 - 2 Pin MS 54 - M12		Mounting Threads 02 - 1/4-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male	