

# HS-100S Accelerometer

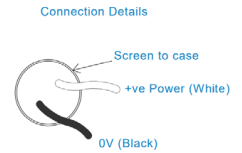
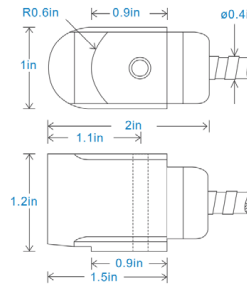
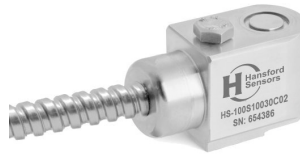
## AC acceleration output via FEP Cable with Protective Conduit

### 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 72°F
Frequency Response	120cpm (2Hz) to 600kcpm (10kHz) $\pm 5\%$ 90cpm (1.5Hz) to 720kcpm (12kHz) $\pm 10\%$ 48cpm (0.8Hz) to 900kcpm (15kHz) $\pm 3\text{dB}$
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	5.9ft. Lbs
Mounting Bolt provided	see: 'How To Order' table x 1.2in long
Weight	7.2 oz. (nominal) body only
Maximum Cable Length	3,280 ft.
Standard Cable Length	16 ft.
Screened Cable	n/a
Screened Cable Assembly	see: <a href="http://www.hansfordsensors.com">www.hansfordsensors.com</a> for options
Connector	n/a
Mounting Threads	see: 'How To Order' table

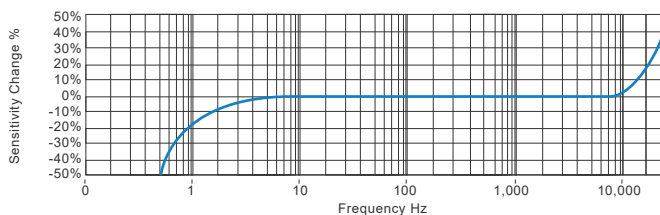
### Electrical

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

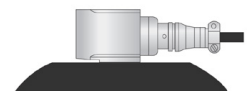
Operating Temperature Range	-67 to 284°F
Sealing	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

### 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	Product Series											
HS - Hansford Sensors	100 - Industrial Vibration Sensor	H	S	1	0	0	X	X	X	X	X	X
Extra Options (if required)	Sensitivity	Range	Resonant Frequency	Cable/Connector	Mounting Threads							
F - Filtered	010 - 10mV/g	$\pm 800\text{g}$	27kHz (1,620kcpm)	30C - FEP with Protective Conduit	02 - 1/4-28" UNF Male							
I - Intrinsically Safe	030 - 30mV/g	$\pm 250\text{g}$	25kHz (1,500kcpm)		06 - M6 x 1mm Male							
RT - Temperature Output PT110	050 - 50mV/g	$\pm 160\text{g}$	23kHz (1,380kcpm)		08 - M8 x 1.25mm Male							
T - Temperature Output	100 - 100mV/g	$\pm 80\text{g}$	21kHz (1,260kcpm)									
Y - 5% tolerance on sensitivity	250 - 250mV/g	$\pm 32\text{g}$	19kHz (1,140kcpm)									
	500 - 500mV/g	$\pm 16\text{g}$	17kHz (1,020kcpm)									