

# HS-170S Premium Accelerometer

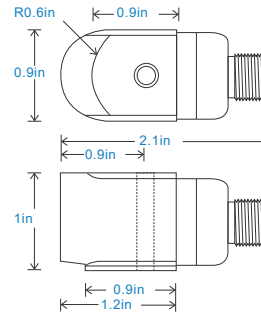
AC acceleration output via M12 Connector

## Key Features

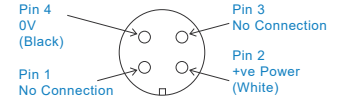
- Compact design
- Premium design
- Side entry for easy access

## Industries

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



Connection Details



## 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 840kcpm (14kHz) $\pm 5\%$ 90cpm (1.5Hz) to 960kcpm (16kHz) $\pm 10\%$ 48cpm (0.8Hz) to 1,140kcpm (19kHz) $\pm 3\text{dB}$
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

## Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Mounting Torque	5.9ft. lbs
Mounting Bolt Provided	see: 'How To Order' table x 1.2in long
Weight	4.7 oz. (nominal) body only
Connector	Use booted connector only
Mounting Threads	see: 'How To Order' table

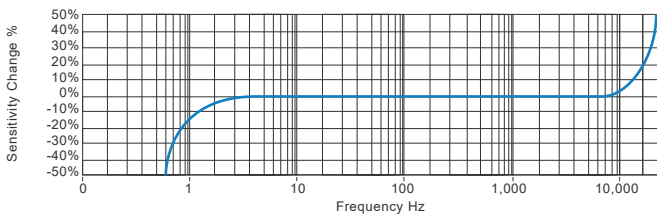
## Electrical

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	-67 to 300°F
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	Product Series										
HS - Hansford Sensors	170 - Compact Premium Industrial Vibration Sensor										
H	S	1	7	0	S	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
F - Filtered		010 - 10mV/g		$\pm 800\text{g}$		1,800kcpm (30kHz)		01 - PUR		02 - 1/4-28" UNF Male	
L - 316L Stainless Steel		030 - 30mV/g		$\pm 250\text{g}$		1,680kcpm (28kHz)		02 - Braided		06 - M6 x 1mm Male	
RT - Temperature Output PT100		050 - 50mV/g		$\pm 160\text{g}$		1,560kcpm (26kHz)		07 - Silicon		08 - M8 x 1.25mm Male	
S - 90° Side Exit		100 - 100mV/g		$\pm 80\text{g}$		1,440kcpm (24kHz)		08 - Flame Retardant			
T - Temperature Output		250 - 250mV/g		$\pm 32\text{g}$		1,320kcpm (22kHz)		50 - 2 Pin MS			
Y - 5% tolerance on sensitivity		500 - 500mV/g		$\pm 16\text{g}$		1,200kcpm (20kHz)		54 - M12			



[www.hansfordsensors.com](http://www.hansfordsensors.com)  
[sales@hansfordsensors.com](mailto:sales@hansfordsensors.com)

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

TS487U.4

