

# HS-104 Low Power Accelerometer

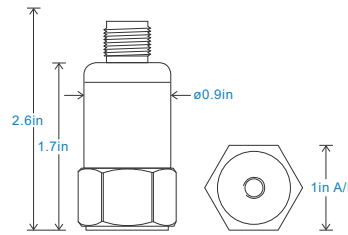
AC acceleration output via M12 Connector

## Key Features

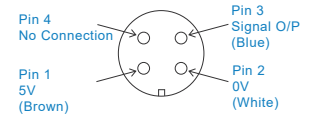
- Low voltage
- Ultra low power consumption
- Customizable features

## 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°C
Frequency Response	18cpm (0.3Hz) to 600kcpm (10kHz) $\pm 10\%$
Isolation	Base isolated
Range	see: 'How To Order' table @ 5V power
Transverse Sensitivity	Less than 5%
Amplitude Linearity	$\pm 1\%$

## Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Mounting Torque	5.9ft. lbs
Weight	4.4 oz. (nominal)
Shielded Cable Assembly	HS-AC010 - straight HS-AC011 - right angle
Mounting Threads	see: 'How To Order' table

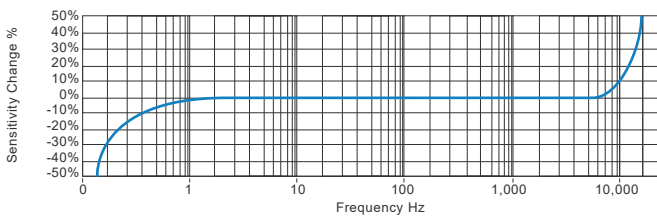
## Electrical

Electrical Noise	< 500 $\mu$ g
Power Requirements	5V nominal (other voltages 1.8 to 24V on request)
Current Consumption	100 $\mu$ A nominal at 5V supply (60 $\mu$ A at 1.8V)
Bias Voltage	50% of supply voltage
Settling Time	1 second
Output Impedance	100 Ohms max.
Case Isolation	>10 <sup>8</sup> Ohms at 500 Volts

## Environmental

Operating Temperature Range	-58 to 257°F
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

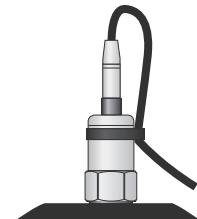
## Typical Frequency Response (at 100mV/g)



## 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	Cable Length (if integral cable)												
HS - Hansford Sensors	104 - Low Power Vibration Sensor	UXX - length specified in feet												
<b>H</b>	<b>S</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Extra Options (if required)</b>		<b>Sensitivity</b>		<b>Range</b>	<b>Resonant Frequency</b>		<b>Cable/Connector</b>			<b>Mounting Threads</b>				
F - Filtered		010 - 10mV/g	$\pm 200g$	1,500kcpm (25kHz)	01 - PUR			01 - ¼-28" UNF Female						
L - 316L Stainless Steel		030 - 30mV/g	$\pm 66g$	1,500kcpm (25kHz)	03 - Braided			02 - ¼-28" UNF Male						
RT - Temperature Output PT100		050 - 50mV/g	$\pm 40g$	1,500kcpm (25kHz)	07 - Silicon			05 - Quick Fit Female						
S - 90° Side Exit		100 - 100mV/g	$\pm 20g$	1,500kcpm (25kHz)	13 - Flame Retardant			06 - M6 x 1mm Male						
T - Temperature Output		250 - 250mV/g	$\pm 8g$	1,500kcpm (25kHz)	52 - 3 Pin MS			08 - M8 x 1.25mm Male						
		500 - 500mV/g	$\pm 4g$	1,500kcpm (25kHz)	54 - M12			10 - M10 x 1.5mm Male						



[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  
TS229U.5

