

# HS-105S High Temp. Accelerometer

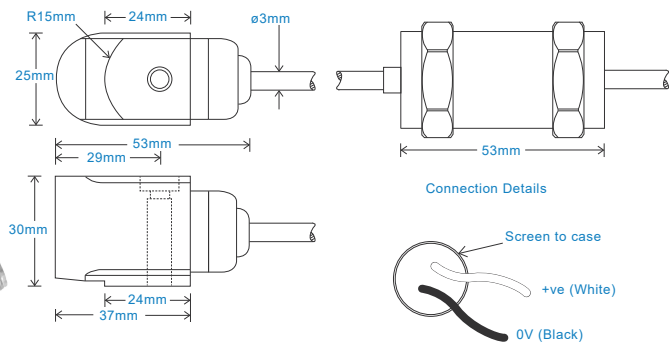
## AC output via Low Noise Cable

### Key Features

- Includes external charge amplifier
- Optional temperature ranges
- Low noise cable

### 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	185gms (nominal)
Maximum Cable Length	1000 metres
Cable	see: 'How To Order' table - (20 metres max between sensor and charge amplifier)
Mounting Threads	see: 'How To Order' table

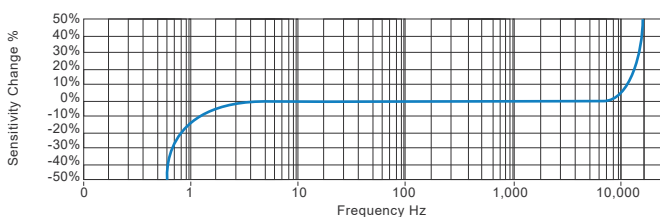
### Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10 - 12 Volts DC
Settling Time	2 seconds
Output Impedance	200 Ohms max.
Case Isolation	$>10^8$ Ohms at 500 Volts

### Environmental

Operating Temperature Range	-55°C to see 'How To Order' table for max
Sealing	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

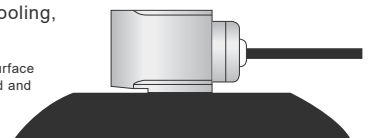
### Typical Frequency Response (at 100mV/g)



### 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				Cable Length (if integral cable)													
HS - Hansford Sensors		105 - Industrial Vibration Sensor				QXX/XX - length before/after charge amp, specified in metres													
H	S	1	0	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable		Connector		Mounting Threads							
I - Intrinsically Safe		010 - 10mV/g		±800g		28kHz (1,680kcpm)		04 - Low Noise (150°C)		02 - Braided		02 - ¼-28" UNF Male							
S - 90° Side Exit		030 - 30mV/g		±250g		26kHz (1,560kcpm)		05 - Low Noise (250°C)		50 - 2 Pin MS		06 - M6 x 1mm Male							
Y - 5% tolerance on sensitivity		050 - 50mV/g		±160g		24kHz (1,440kcpm)						08 - M8 x 1.25mm Male							
		100 - 100mV/g		±80g		22kHz (1,320kcpm)													
		250 - 250mV/g		±32g		20kHz (1,200kcpm)													
		500 - 500mV/g		±16g		18kHz (1,080kcpm)													
												*The above connectors can't be used with Intrinsically Safe							