

# HS-172 Premium Biaxial Accelerometer

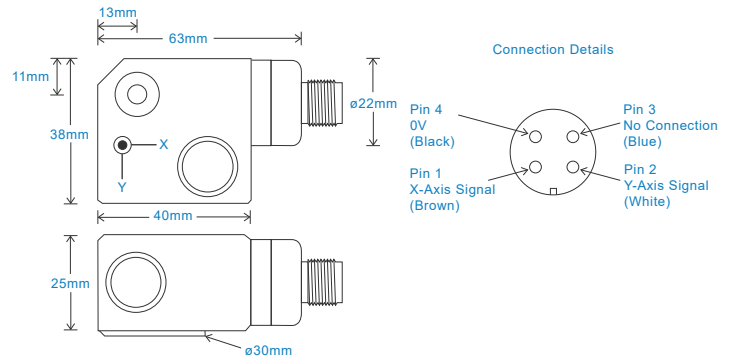
## Two AC outputs via M12 Connector

### Key Features

- Output via two axes
- For use with data collector
- 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) +3kHz for aluminium version
Sensitivity	see: 'How To Order' table $\pm 10\%$ Nominal 80Hz at 22°C per axes
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 unless specified Aluminium
Sensing Element/Construction	PZT/Shear
Mounting Torque	8Nm
Mounting Bolt Provided	see: 'How To Order' table x 30mm long
Weight	235gms (nominal) - Stainless Steel 115gms (nominal) - Aluminium
Screened Cable Assembly	HS-AC010 - straight
Mounting Threads	see: 'How To Order' table

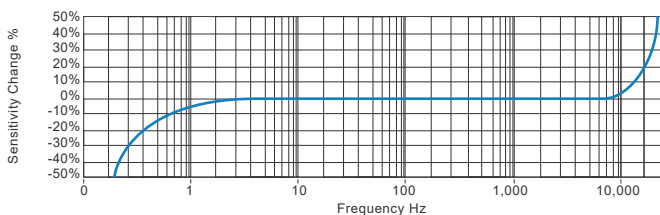
### Electrical

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	-55 to 150°C
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

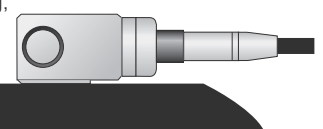
### Typical Frequency Response (at 100mV/g)



### 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	Product Series										
HS - Hansford Sensors	172 - Biaxial Industrial Vibration Sensor										
H	S	1	7	2	X	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Connector		Mounting Threads	
AL - Aluminium Material		010 - 10mV/g		$\pm 800\text{g}$		20kHz (1,200kcpm)		54 - M12		02 - 1/4-28" UNF Male	
F - Filtered		030 - 30mV/g		$\pm 250\text{g}$		19kHz (1,140kcpm)				06 - M6 x 1mm Male	
RT - Temperature Output PT100		050 - 50mV/g		$\pm 160\text{g}$		18kHz (1,080kcpm)				08 - M8 x 1.25mm Male	
T - Temperature Output		100 - 100mV/g		$\pm 80\text{g}$		17kHz (1,020kcpm)					
		250 - 250mV/g		$\pm 32\text{g}$		16kHz (960kcpm)					
		500 - 500mV/g		$\pm 16\text{g}$		15kHz (900kcpm)					



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

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