

HS-172 Premium Biaxial Accelerometer

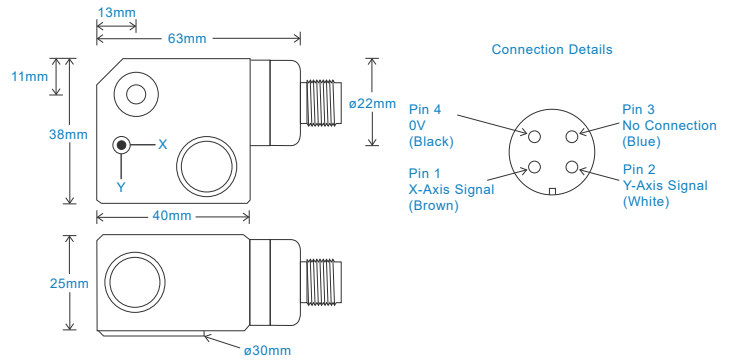
Two AC outputs via M12 Connector

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 ±10% Nominal 80Hz at 22°C per axes
Frequency Response	2Hz (120cpm) to 10kHz (600kcpm) ± 5% 1.5Hz (90cpm) to 12kHz (720kcpm) ± 10% 0.8Hz (48cpm) to 15kHz (900kcpm) ± 3dB
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

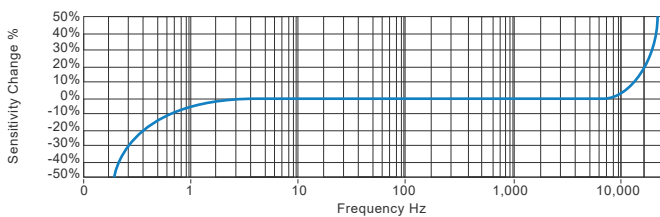
Electrical

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

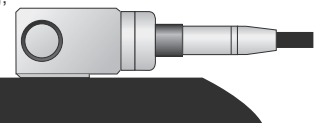
Typical Frequency Response (at 100mV/g)



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 F - Filtered RT - Temperature Output PT100 T - Temperature Output		010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g		±800g ±250g ±160g ±80g ±32g ±16g		20kHz (1,800kcpm) 19kHz (1,680kcpm) 18kHz (1,560kcpm) 17kHz (1,440kcpm) 16kHz (1,320kcpm) 15kHz (1,200kcpm)		54 - M12		02 - ¼-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male	



www.hansfordsensors.com
sales@hansfordsensors.com

We reserve the right to alter the specification of this product without prior notice
TS288.8



HS-172 Premium Biaxial Accelerometer

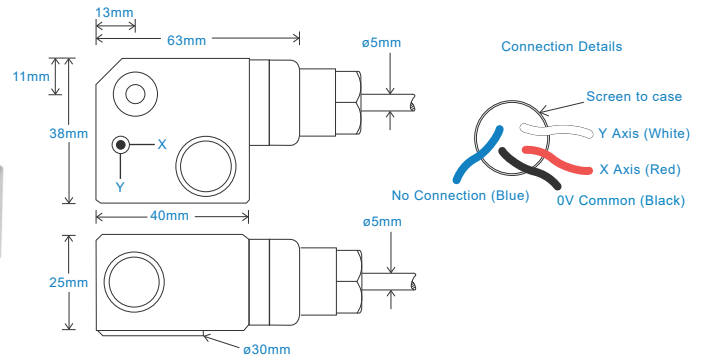
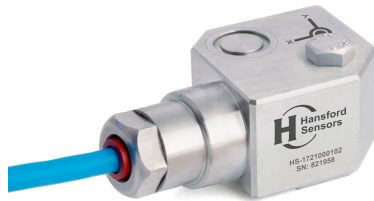
Two AC outputs via PUR cable

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 axis
Frequency Response	2Hz (120cpm) to 10kHz (600kcpm) $\pm 5\%$ 1.5Hz (90cpm) to 12kHz (720kcpm) $\pm 10\%$ 0.8Hz (48cpm) to 15kHz (900kcpm) $\pm 3dB$
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
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	PUR - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	100 metres max (10 bar)

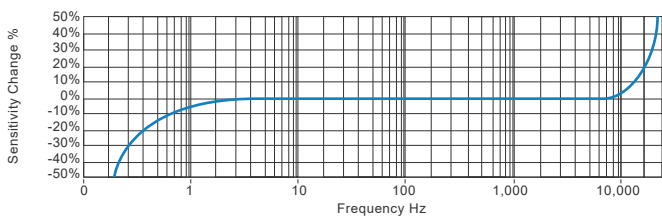
Electrical

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	-30 to 90°C
Sealing	IP68
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 - Triaxial Industrial Vibration Sensor										
H	S	1	7	2	X	X	X	X	X	X	X
Extra Options (if required) AL - Aluminium Material F - Filtered		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g		Range $\pm 800g$ $\pm 250g$ $\pm 160g$ $\pm 80g$ $\pm 32g$ $\pm 16g$		Resonant Frequency 20kHz (1,800kcpm) 19kHz (1,680kcpm) 18kHz (1,560kcpm) 17kHz (1,440kcpm) 16kHz (1,320kcpm) 15kHz (1,200kcpm)		Cable/Connector 01 - PUR		Mounting Threads 02 - ¼-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male	



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TS1008.1

