HS-173 Premium Triaxial Accelerometer

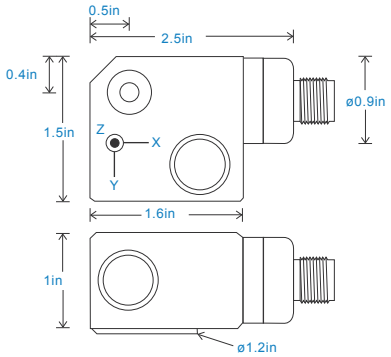
Three AC outputs via M12 Connector

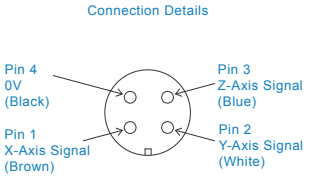
Key Features

- Output via three axies
- For use with data collector
- Customizable 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 axies
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

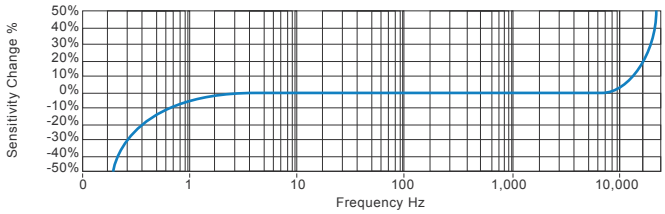
Electrical

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	-67 to 266°F
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

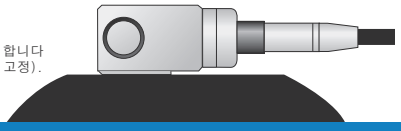
Typical Frequency Response (at 100mV/g)



Applications

팬, 모터, 펌프, 압축기, 원심분리기, 컨베이어, 에어 핸들러, 기어박스, 롤, 건조기, 프레스, 냉각, VAC, 스핀들, 공작 기계, 공정 장비

진동 센서는 평평한 표면에 단단히 고정되어야 합니다 (스폿 면이 필요할 수 있으며 센서 본체에 케이블 고정).



How To Order

Product Prefix
HS - Hansford Sensors

Product Series
173 - Triaxial Industrial Vibration Sensor

H	S	-	1	7	3	X	X	X	X	X	X	X	X

Extra Options (if required)
AL - Aluminium Material
F - Filtered
RT - Temperature Output PT100
T - Temperature Output

Sensitivity	Range	Resonant Frequency
010 - 10mV/g	±800g	1,800kcpm (20kHz)
030 - 30mV/g	±250g	1,680kcpm (19kHz)
050 - 50mV/g	±160g	1,560kcpm (18kHz)
100 - 100mV/g	±80g	1,440kcpm (17kHz)
250 - 250mV/g	±32g	1,320kcpm (16kHz)
500 - 500mV/g	±16g	1,200kcpm (15kHz)

Cable/Connector
54 - M12

Mounting Threads
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

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HS-173 Premium Triaxial Accelerometer

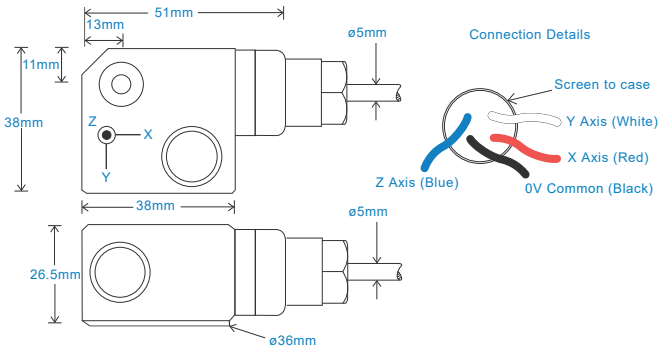
AC acceleration output via PUR cable

Key Features

- Output via three axes
- Waterproof
- Resistant to oil

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 ±10%
	Nominal 80Hz at 22°C per axies
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
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)

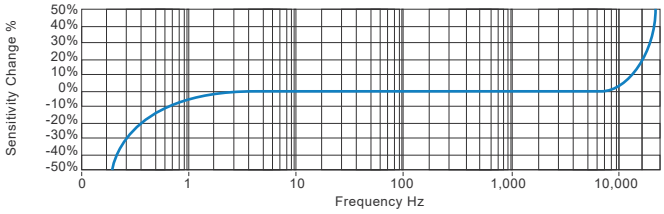
Electrical

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
HS - Hansford Sensors

Product Series
173 - Triaxial Industrial Vibration Sensor

H	S	1	7	3	X	X	X	X	X	X	X	X

Extra Options (if required)
AL - Aluminium Material
F - Filtered

Sensitivity / Range / Resonant Frequency

010	- 10mV/g	±800g	20kHz (1,200kcpm)
030	- 30mV/g	±250g	19kHz (1,140kcpm)
050	- 50mV/g	±160g	18kHz (1,080kcpm)
100	- 100mV/g	±80g	17kHz (1,020kcpm)
250	- 250mV/g	±32g	16kHz (960kcpm)
500	- 500mV/g	±16g	15kHz (900kcpm)

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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HS-173 Premium Triaxial Accelerometer

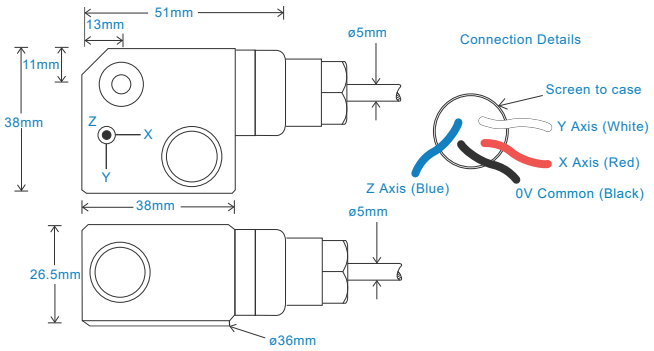
AC acceleration output via 4 Core Polyolefin HFFR

Key Features

- Output via three axes
- For use with data collector
- Resistant to oil

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 axies
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
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Polyolefin HFFR - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	100 metres max (10 bar)

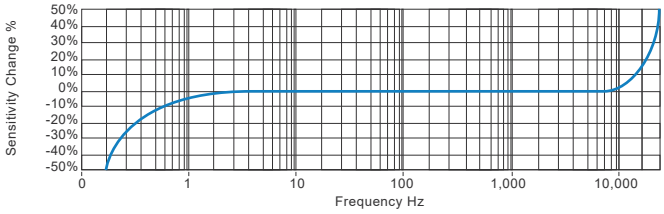
Electrical

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	-55 to 130ºC
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

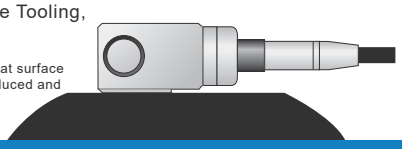
Typical Frequency Response (at 100mV/g)



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	173 - Triaxial Industrial Vibration Sensor											
H	**S**	**1**	**7**	**3**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**

Extra Options (if required)
AL - Aluminium Material
F - Filtered

Sensitivity		Range	Resonant Frequency	
010	- 10mV/g	±800g	20kHz	(1,200kcpm)
030	- 30mV/g	±250g	19kHz	(1,140kcpm)
050	- 50mV/g	±160g	18kHz	(1,080kcpm)
100	- 100mV/g	±80g	17kHz	(1,020kcpm)
250	- 250mV/g	±32g	16kHz	(960kcpm)
500	- 500mV/g	±16g	15kHz	(900kcpm)

Cable/Connector
37 - 4 Core Polyolefin HFFR

Mounting Threads
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

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TS1047.6

HS-173 Premium Triaxial Accelerometer

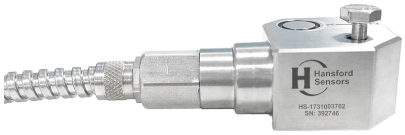
AC acceleration output via 4 Core Polyolefin HFFR with Protective Conduit

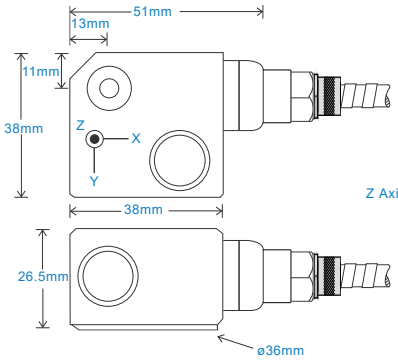
Key Features

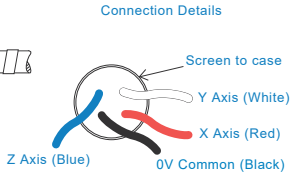
- Output via three axes
- For use with data collector
- Resistant to oil

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 axies
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
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Polyolefin HFFR - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	100 metres max (10 bar)

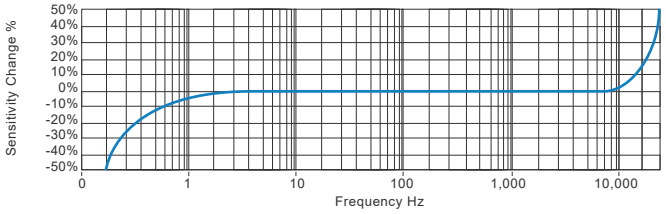
Electrical

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	-55 to 130ºC
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

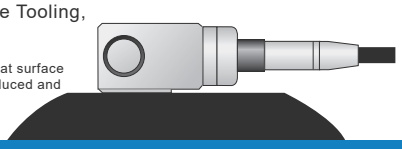
Typical Frequency Response (at 100mV/g)



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
HS - Hansford Sensors

Product Series
173 - Triaxial Industrial Vibration Sensor

H	S	1	7	3	X	X	X	X	X	X	X	X

Extra Options (if required)
AL - Aluminium Material
F - Filtered

Sensitivity / Range / Resonant Frequency

010	- 10mV/g	±800g	20kHz (1,200kcpm)
030	- 30mV/g	±250g	19kHz (1,140kcpm)
050	- 50mV/g	±160g	18kHz (1,080kcpm)
100	- 100mV/g	±80g	17kHz (1,020kcpm)
250	- 250mV/g	±32g	16kHz (960kcpm)
500	- 500mV/g	±16g	15kHz (900kcpm)

Cable/Connector
37C - 4 Core Polyolefin HFFR with Protective Conduit

Mounting Threads
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

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HS-173 Premium Triaxial Accelerometer

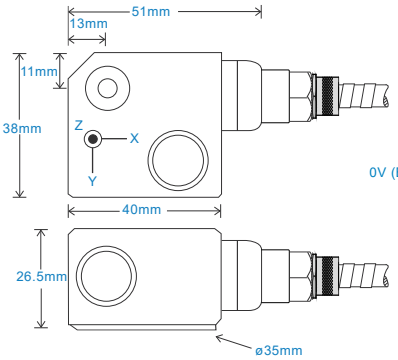
AC Acceleration Output via 5 Core PTFE Cable with Protective Conduit

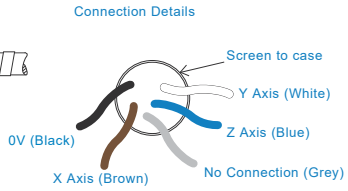
Key Features

- For use with data collector
- Protective Conduit
- 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)
Sensitivity	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C per axies
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
Sensing Element/Construction	PZT/Shear
Mounting Torque	8Nm
Mounting Bolt Provided	see: 'How To Order' table x 30mm long
Weight-Sensor Only	235gms (nominal) - Stainless Steel
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	PTFE Cable - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	100 metres max (10 bar)
Conduit Material	Stainless Steel
Conduit Length	Conduit Length is approx. 0.5m shorter than the cable

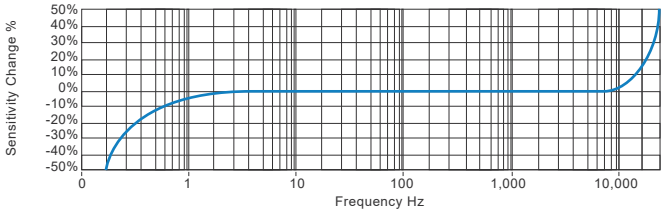
Electrical

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 150ºC
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

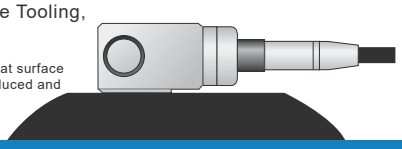
Typical Frequency Response (at 100mV/g)



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
HS - Hansford Sensors

Product Series
173 - Triaxial Industrial Vibration Sensor

H	S	1	7	3	X	X	X	X	X	X	X	X	X

Extra Options (if required)
F - Filtered
H - High Temperature
T - Temperature Output

Sensitivity		Range	Resonant Frequency	
010	- 10mV/g	±800g	20kHz	(1,200kcpm)
030	- 30mV/g	±250g	19kHz	(1,140kcpm)
050	- 50mV/g	±160g	18kHz	(1,080kcpm)
100	- 100mV/g	±80g	17kHz	(1,020kcpm)
250	- 250mV/g	±32g	16kHz	(960kcpm)
500	- 500mV/g	±16g	15kHz	(900kcpm)

Cable/Connector
38 - 5 Core PTFE Cable
38C - 5 Core PTFE Cable with Protective conduit.

Mounting Threads
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

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