

HS-150S Premium Accelerometer

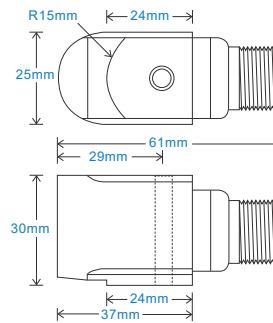
AC acceleration output via 2 Pin MS Connector

Key Features

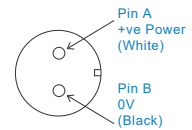
- For use with data collector and online systems
- Side entry for easy access
- Customisable features

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 22°C
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$ 0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$ 0.2Hz (12cpm) 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/Shear
Mounting Torque	8Nm
Mounting Bolt provided	see: 'How To Order' table x 35mm long
Weight	205gms (nominal) body only
Screened Cable Assembly	see: www.hansfordsensors.com for options
Connector	HS-AA004 - non-booted HS-AA053 or HS-0054 - booted
Mounting Threads	see: 'How To Order' table

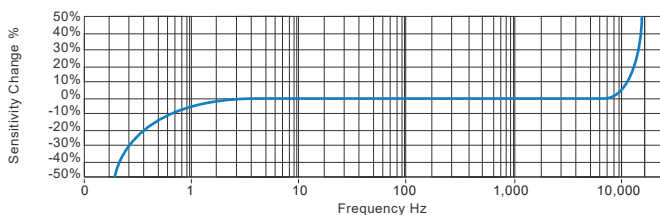
Electrical

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	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

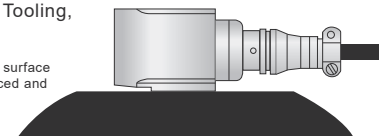
Typical Frequency Response (at 100mV/g)



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	150 - Premium Industrial Vibration Sensor										
H	S	1	5	0	S	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
F - Filtered		010 - 10mV/g		$\pm 800\text{g}$		27kHz (1,620kcpm)		01 - PUR		02 - 1/4-28" UNF Male	
L - 316L Stainless Steel		030 - 30mV/g		$\pm 250\text{g}$		25kHz (1,500kcpm)		02 - Braided		06 - M6 x 1mm Male	
RT - Temperature Output PT100		050 - 50mV/g		$\pm 160\text{g}$		23kHz (1,380kcpm)		07 - Silicon		08 - M8 x 1.25mm Male	
S - 90° Side Exit		100 - 100mV/g		$\pm 80\text{g}$		21kHz (1,260kcpm)		08 - Flame Retardant			
T - Temperature Output		250 - 250mV/g		$\pm 32\text{g}$		19kHz (1,140kcpm)		50 - 2 Pin MS			
Y - 5% tolerance on sensitivity		500 - 500mV/g		$\pm 16\text{g}$		17kHz (1,020kcpm)		54 - M12			



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TS216.9



HS-150S Premium Accelerometer

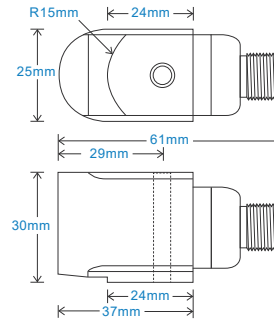
AC acceleration output via M12 Connector

Key Features

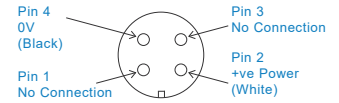
- Premium design
- Side entry for easy access
- Customisable features

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 22°C
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$ 0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$ 0.2Hz (12cpm) 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/Shear
Mounting Torque	8Nm
Mounting Bolt Provided	see: 'How To Order' table x 35mm long
Weight	205gms (nominal) body only
Screened Cable Assembly	HS-AC010 - straight HS-AC011 - right angle
Mounting Threads	see: 'How To Order' table

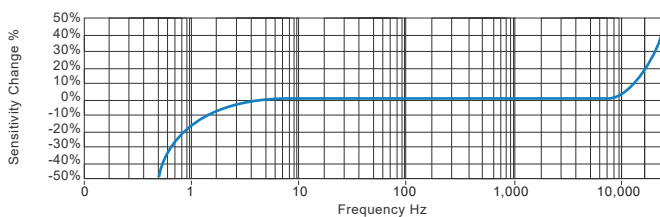
Electrical

Excitation Voltage:	18-30Volts DC
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 to 150°C
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

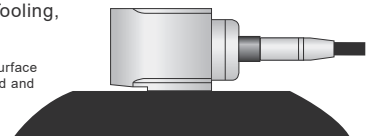
Typical Frequency Response (at 100mV/g)



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 HS - Hansford Sensors	Product Series 150 - Premium Industrial Vibration Sensor										
H	S	1	5	0	S	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
F - Filtered		010 - 10mV/g		$\pm 800\text{g}$		34kHz (2,040kcpm)		01 - PUR		02 - 1/4-28" UNF Male	
L - 316L Stainless Steel		030 - 30mV/g		$\pm 250\text{g}$		33kHz (1,980kcpm)		02 - Braided		06 - M6 x 1mm Male	
RT - Temperature Output PT100		050 - 50mV/g		$\pm 160\text{g}$		32kHz (1,920kcpm)		07 - Silicon		08 - M8 x 1.25mm Male	
S - 90° Side Exit		100 - 100mV/g		$\pm 80\text{g}$		30kHz (1,800kcpm)		08 - Flame Retardant			
T - Temperature Output		250 - 250mV/g		$\pm 32\text{g}$		28kHz (1,680kcpm)		50 - 2 Pin MS			
Y - 5% tolerance on sensitivity		500 - 500mV/g		$\pm 16\text{g}$		26kHz (1,560kcpm)		54 - M12			



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TS266.7



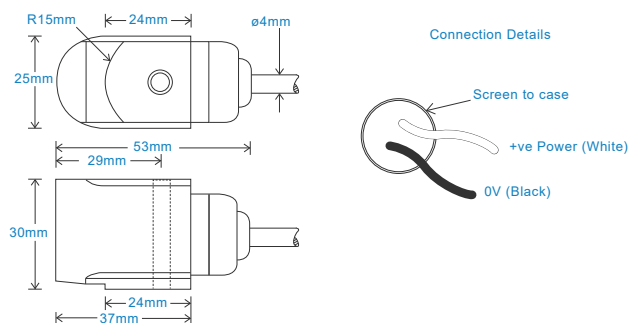
AC acceleration output via Braided Cable

Key Features

- Premium design
- Side entry for easy access
- Customisable features

Industries

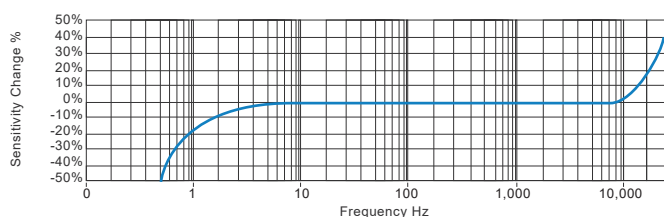
Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$	Sensing Element/Construction	PZT/Shear
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$	Mounting Bolt provided	see: 'How To Order' table x 35mm long
	0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$	Weight	205gms (nominal) body only
	0.2Hz (12cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Maximum Cable Length	1000 metres
Isolation	Base isolated	Standard Cable Length	5 metres
Range	see: 'How To Order' table	Screened Cable	Braided - length to be specified with order
Transverse Sensitivity	Less than 5%	Mounting Threads	see: 'How To Order' table

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	-55 to 150°C
Electrical Noise	0.1mg max	Sealing	IP65
Current Range	0.5mA to 8mA	Maximum Shock	5000g
Bias Voltage	10 - 12 Volts DC	EMC	EN61326-1:2013
Settling Time	2 seconds		
Output Impedance	200 Ohms max.		
Case Isolation	>10 ⁸ Ohms at 500 Volts		

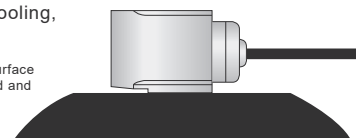
Typical Frequency Response (at 100mV/g)



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 150 - Premium Industrial Vibration Sensor						Cable Length (if integral cable) QXX - length specified in metres						
H	S	1	5	0	S	X	X	X	X	X	X	X	X	X
Extra Options (if required) F - Filtered L - 316L Stainless Steel RT - Temperature Output PT100 S - 90° Side Exit T - Temperature Output Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g		Range ±80g ±250g ±160g ±80g ±32g ±16g		Resonant Frequency 34kHz (2,040kcpm) 33kHz (1,980kcpm) 32kHz (1,920kcpm) 30kHz (1,800kcpm) 28kHz (1,680kcpm) 26kHz (1,560kcpm)		Cable/Connector 01 - PUR 02 - Braided 07 - Silicon 08 - Flame Retardant 50 - 2 Pin MS 54 - M12		Mounting Threads 02 - ¼-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male				

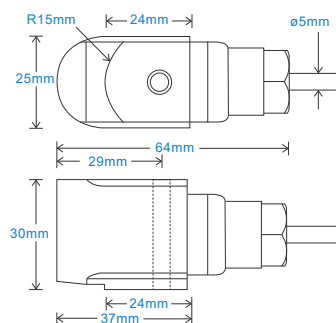
AC acceleration output via Silicon Cable

Key Features

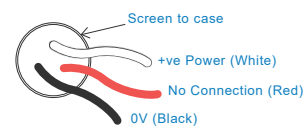
- Waterproof
- Side entry for easy access
- Premium design

Industries

Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



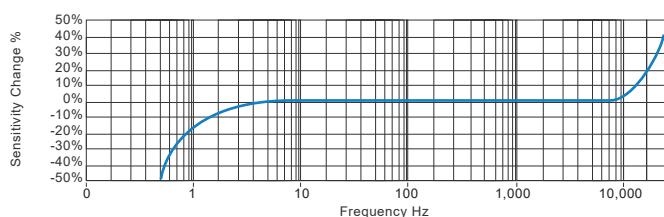
Connection Details



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$	Sensing Element/Construction	PZT/Shear
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$	Mounting Bolt provided	see: 'How To Order' table x 35mm long
	0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$	Weight	205gms (nominal) body only
	0.2Hz (12cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Maximum Cable Length	1000 metres
Isolation	Base isolated	Standard Cable Length	5 metres
Range	see: 'How To Order' table	Screened Cable	Silicon - length to be specified with order
Transverse Sensitivity	Less than 5%	Mounting Threads	See 'How To Order' table
		Submersible Depth	100 metres max (10 bar)

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	-50 to 150°C
Electrical Noise	0.1mg max	Sealing	IP68
Current Range	0.5mA to 8mA	Maximum Shock	5000g
Bias Voltage	10 - 12 Volts DC	EMC	EN61326-1:2013
Settling Time	2 seconds		
Output Impedance	200 Ohms max.		
Case Isolation	>10 ⁸ Ohms at 500 Volts		

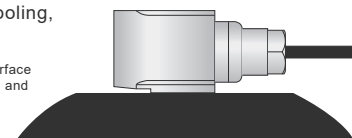
Typical Frequency Response (at 100mV/g)



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 150 - Premium Industrial Vibration Sensor						Cable Length (if integral cable) QXX - length specified in metres							
H	S	1	5	0	S	X	X	X	X	X	X	X	X	X	
Extra Options (if required) F - Filtered L - 316L Stainless Steel RT - Temperature Output PT100 S - 90° Side Exit T - Temperature Output Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g						Range ±800g ±250g ±160g ±80g ±32g ±16g		Resonant Frequency 34kHz (2,040kcpm) 33kHz (1,980kcpm) 32kHz (1,920kcpm) 30kHz (1,800kcpm) 28kHz (1,680kcpm) 26kHz (1,560kcpm)		Cable/Connector 01 - PUR 02 - Braided 07 - Silicon 08 - Flame Retardant 50 - 2 Pin MS 54 - M12		Mounting Threads 02 - ¼-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male	



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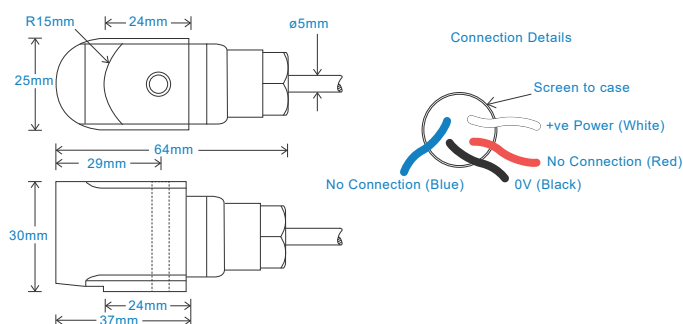
TS275.7



AC acceleration output via PUR Cable

- Waterproof
- Resistant to oil
- Premium design

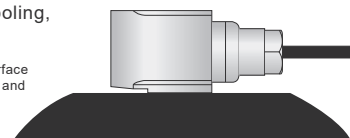
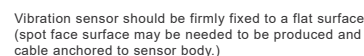
Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$	Sensing Element/Construction	PZT/Shear
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$	Mounting Bolt provided	see: 'How To Order' table x 35mm long
	0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$	Weight	205gms (nominal) body only
	0.2Hz (12cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Maximum Cable Length	1000 metres
Isolation	Base isolated	Standard Cable Length	5 metres
Range	see: 'How To Order' table	Screened Cable	PUR - length to be specified with order
Transverse Sensitivity	Less than 5%	Mounting Threads	see: 'How To Order' table
		Submersible Depth	100 metres max (10 bar)

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	-30 to 90°C
Electrical Noise	0.1mg max	Sealing	IP68
Current Range	0.5mA to 8mA	Maximum Shock	5000g
Bias Voltage	10 - 12 Volts DC	EMC	EN61326-1:2013
Settling Time	2 seconds		
Output Impedance	200 Ohms max.		
Case Isolation	>10 ⁸ Ohms at 500 Volts		

Fans, Motors, Pumps, Compressors,
Centrifuges, Conveyors, Air Handlers,
Gearboxes, Rolls, Dryers, Presses,
Cooling, VAC, Spindles, Machine Tooling,
Process Equipment



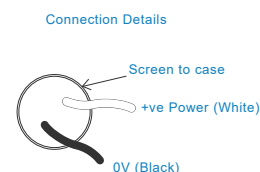
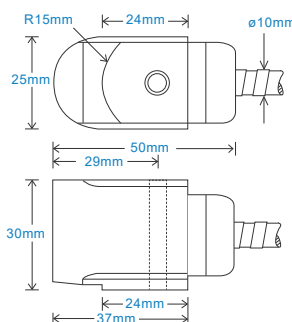
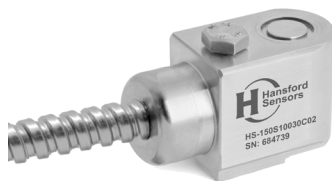
How To Order

Product Prefix HS - Hansford Sensors		Product Series 150 - Premium Industrial Vibration Sensor						Cable Length (if integral cable) QXX - length specified in metres						
H	S	1	5	0	S	X	X	X	X	X	X	X	X	X
Extra Options (if required) F - Filtered L - 316L Stainless Steel RT - Temperature Output PT100 S - 90° Side Exit T - Temperature Output Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g		Range ±800g ±250g ±160g ±80g ±32g ±16g		Resonant Frequency 34kHz (2,040kcpm) 33kHz (1,980kcpm) 32kHz (1,920kcpm) 30kHz (1,800kcpm) 28kHz (1,680kcpm) 26kHz (1,560kcpm)		Cable/Connector 01 - PUR 02 - Braided 07 - Silicon 08 - Flame Retardant 50 - 2 Pin MS 54 - M12		Mounting Threads 02 - ¼-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male				

AC acceleration output via FEP Cable with Protective Conduit

- Resistant to oil
- Protective Conduit
- Premium design

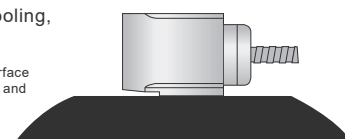
Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$	Sensing Element/Construction	PZT/Shear
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$	Mounting Bolt provided	see: 'How To Order' table x 35mm long
	0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$	Weight	205gms (nominal) body only
	0.2Hz (12cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Maximum Cable Length	1000 metres
Isolation	Base isolated	Standard Cable Length	5 metres
Range	see: 'How To Order' table	Screened Cable	FEP - length to be specified with order
Transverse Sensitivity	Less than 5%	Mounting Threads	see: 'How To Order' table
		Conduit Material	304 Stainless Steel
		Conduit Length	Conduit Length is approx. 0.5m shorter than the cable Maximum Conduit Length:30m

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	-55 to 150°C
Electrical Noise	0.1mg max	Sealing	IP65
Current Range	0.5mA to 8mA	Maximum Shock	5000g
Bias Voltage	10 - 12 Volts DC	EMC	EN61326-1:2013
Settling Time	2 seconds		
Output Impedance	200 Ohms max.		
Case Isolation	>10 ⁸ Ohms at 500 Volts		

Fans, Motors, Pumps, Compressors,
Centrifuges, Conveyors, Air Handlers,
Gearboxes, Rolls, Dryers, Presses,
Cooling, VAC, Spindles, Machine Tooling,
Process Equipment



How To Order

Product Prefix		Product Series								Cable Length (if integral cable)					
HS - Hansford Sensors		150 - Premium Industrial Vibration Sensor								QXX - length specified in metres					
H	S	1	5	0	S	X	X	X	X	X	X	X	X	X	X
Extra Options (if required)										Cable/Connector		Mounting Threads			
F - Filtered										30C - FEP with Protective Conduit		02 - ¼-28" UNF Male			
L - 316L Stainless Steel												06 - M6 x 1mm Male			
RT - Temperature Output PT100												08 - M8 x 1.25mm Male			
S - 90° Side Exit															
T - Temperature Output															
Y - 5% tolerance on sensitivity															
		Sensitivity		Range		Resonant Frequency									
		010 - 10mV/g		±800g		34kHz (2,040kcpm)									
		030 - 30mV/g		±250g		33kHz (1,980kcpm)									
		050 - 50mV/g		±160g		32kHz (1,920kcpm)									
		100 - 100mV/g		±80g		30kHz (1,800kcpm)									
		250 - 250mV/g		±32g		28kHz (1,680kcpm)									
		500 - 500mV/g		±16g		26kHz (1,560kcpm)									



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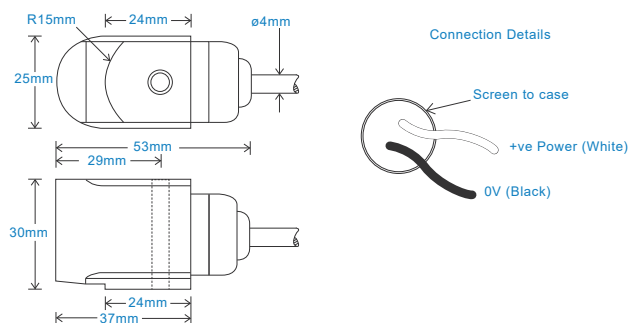
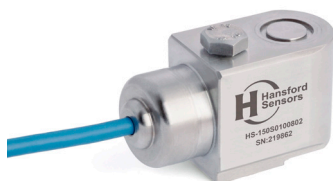
TS778.6



AC acceleration output via Flame Retardant Cable

- Premium design
- Side entry for easy access
- Customisable features
- Low smoke, halogen free cable

Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



CE



HS-150S Premium Accelerometer

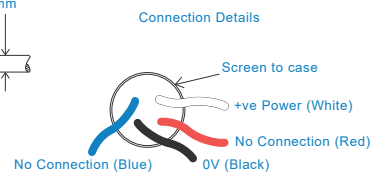
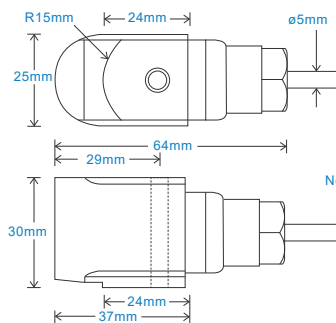
AC acceleration output via 4 Core Polyolefin HFFR

Key Features

- Side entry for easy access
- High Temperature
- Premium design

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	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$ 0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$ 0.2Hz (12cpm) 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/Shear
Mounting Torque	8Nm
Mounting Bolt provided	see: 'How To Order' table x 35mm long
Weight	205gms (nominal) body only
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

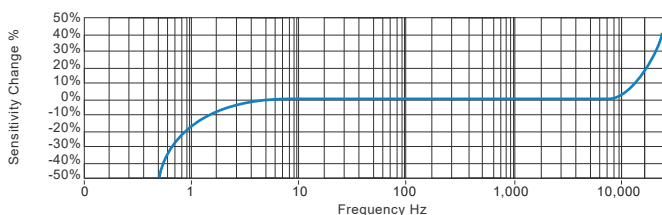
Electrical

Excitation Voltage:	18-30Volts DC
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 to 130°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

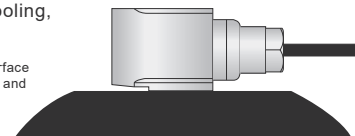
Typical Frequency Response (at 100mV/g)



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	Cable Length
HS - Hansford Sensors	150 - Premium Industrial Vibration Sensor	QXX - length specified in metres
H	S	1
S	5	0
1	S	X
5	X	X
0	X	X
S	X	X
X	X	X
X	X	X
X	X	X
X	X	X
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
F - Filtered	010 - 10mV/g	$\pm 800\text{g}$	34kHz (2,040kcpm)	37 - 4 Core	02 - 1/4-28" UNF Male
L - 316L Stainless Steel	030 - 30mV/g	$\pm 250\text{g}$	33kHz (1,980kcpm)	Polyolefin HFFR	06 - M6 x 1mm Male
RT - Temperature Output PT100	050 - 50mV/g	$\pm 160\text{g}$	32kHz (1,920kcpm)		08 - M8 x 1.25mm Male
S - 90° Side Exit	100 - 100mV/g	$\pm 80\text{g}$	30kHz (1,800kcpm)		
T - Temperature Output	250 - 250mV/g	$\pm 32\text{g}$	28kHz (1,680kcpm)		
Y - 5% tolerance on sensitivity	500 - 500mV/g	$\pm 16\text{g}$	26kHz (1,560kcpm)		



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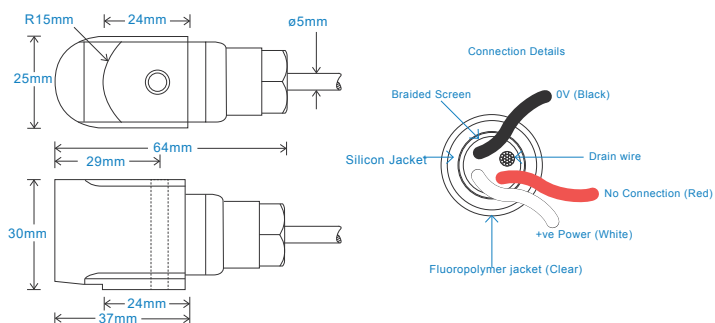
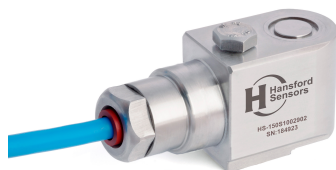
HS-150S Premium Accelerometer

Key Features

- Waterproof
- Side entry for easy access
- Premium design

Industries

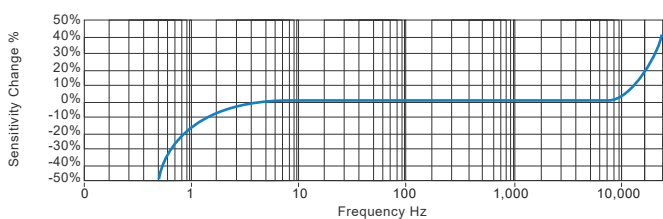
Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$	Sensing Element/Construction	PZT/Shear
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	2Hz (120cpm) to 10kHz (600kcpm) $\pm 5\%$	Mounting Bolt provided	see: 'How To Order' table x 35mm long
	1.5Hz (90cpm) to 12kHz (720kcpm) $\pm 10\%$	Weight	205gms (nominal) body only
	0.8Hz (48cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Maximum Cable Length	1000 metres
Isolation	Base isolated	Standard Cable Length	5 metres
Range	see: 'How To Order' table	Screened Cable	Silicon - length to be specified with order
Transverse Sensitivity	Less than 5%	Mounting Threads	See 'How To Order' table
		Submersible Depth	100 metres max (10 bar)

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	-50 to 150°C
Electrical Noise	0.1mg max	Sealing	IP68
Current Range	0.5mA to 8mA	Maximum Shock	5000g
Bias Voltage	10 - 12 Volts DC	EMC	EN61326-1:2013
Settling Time	2 seconds		
Output Impedance	200 Ohms max.		
Case Isolation	>10 ⁸ Ohms at 500 Volts		

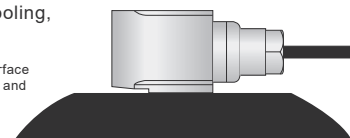
Typical Frequency Response (at 100mV/g)



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		150 - Premium Industrial Vibration Sensor					QXX - length specified in metres							
H	S	1	5	0	S	X	X	X	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads				
F - Filtered		010 - 10mV/g		±800g		34kHz (2,040kcpm)		29 - Silicon Over-Sheath		02 - ¼-28" UNF Male				
L - 316L Stainless Steel		030 - 30mV/g		±250g		33kHz (1,980kcpm)				06 - M6 x 1mm Male				
RT - Temperature Output PT100		050 - 50mV/g		±160g		32kHz (1,920kcpm)				08 - M8 x 1.25mm Male				
S - 90° Side Exit		100 - 100mV/g		±80g		30kHz (1,800kcpm)								
T - Temperature Output		250 - 250mV/g		±32g		28kHz (1,680kcpm)								
Y - 5% tolerance on sensitivity		500 - 500mV/g		±16g		26kHz (1,560kcpm)								



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TS1015



HS-150S Premium Accelerometer

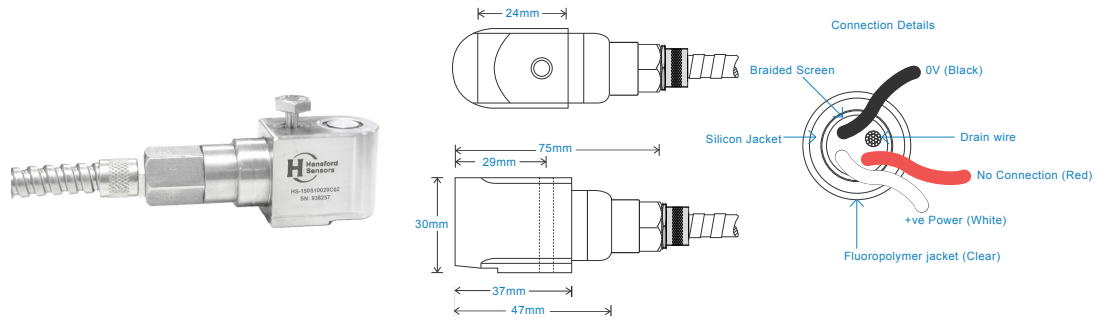
AC acceleration output via 3 Core Silicon Cable with Protective Over-Sheath and Removable Stainless Steel Conduit

Key Features

- Waterproof to IP68
- Side entry for easy access
- Removable Stainless Steel Conduit

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	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$ 0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$ 0.2Hz (12cpm) 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/Shear
Mounting Torque	8Nm
Mounting Bolt provided	see: 'How To Order' table x 35mm long
Weight	205gms (nominal) body only
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Silicon - length to be specified with order
Mounting Threads	see: 'How To Order' table

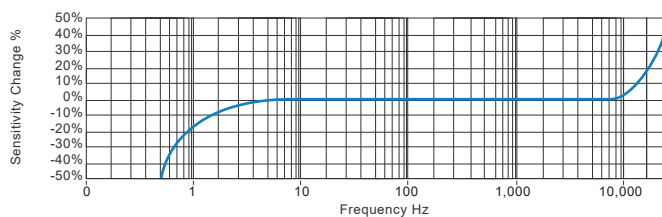
Electrical

Excitation Voltage:	18-30Volts DC
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	-50 to 150°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

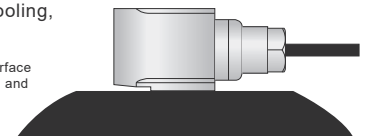
Typical Frequency Response (at 100mV/g)



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 150 - Premium Industrial Vibration Sensor	Cable Length (if integral cable) QXX - length specified in metres
H	S	1
5	0	S
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
X	X	X
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
F - Filtered	010 - 10mV/g	$\pm 800\text{g}$	34kHz (2,040kcpm)	29C - Silicon Cable with	02 - 1/4-28" UNF Male
RT - Temperature Output PT100	030 - 30mV/g	$\pm 250\text{g}$	33kHz (1,980kcpm)	Over-Sheath and	06 - M6 x 1mm Male
S - 90° Side Exit	050 - 50mV/g	$\pm 160\text{g}$	32kHz (1,920kcpm)	Removable Conduit	08 - M8 x 1.25mm Male
T - Temperature Output	100 - 100mV/g	$\pm 80\text{g}$	30kHz (1,800kcpm)		
Y - 5% tolerance on sensitivity	250 - 250mV/g	$\pm 32\text{g}$	28kHz (1,680kcpm)		
	500 - 500mV/g	$\pm 16\text{g}$	26kHz (1,560kcpm)		



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TS1085





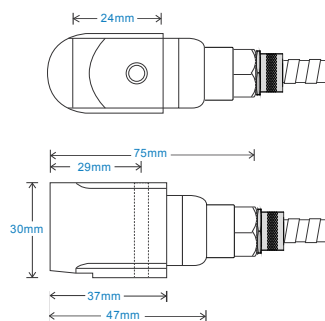
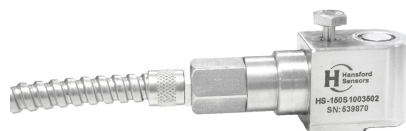
AC acceleration output via 3 Core Silicon Cable with Removable Stainless Steel Conduit

Key Features

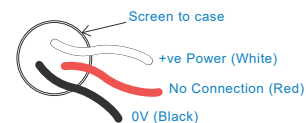
- Waterproof to IP68
- Side entry for easy access
- Removable Stainless Steel Conduit

Industries

Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



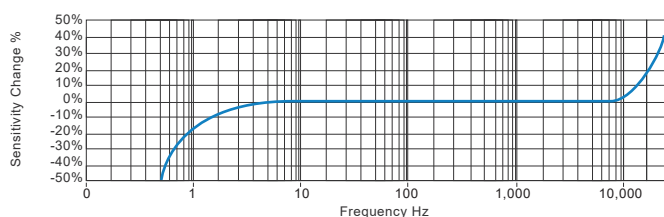
Connection Details



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$	Sensing Element/Construction	PZT/Shear
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$	Mounting Bolt provided	see: 'How To Order' table x 35mm long
	0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$	Weight	205gms (nominal) body only
	0.2Hz (12cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Maximum Cable Length	1000 metres
Isolation	Base isolated	Standard Cable Length	5 metres
Range	see: 'How To Order' table	Screened Cable	Silicon - length to be specified with order
Transverse Sensitivity	Less than 5%	Mounting Threads	see: 'How To Order' table

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	-50 to 150°C
Electrical Noise	0.1mg max	Sealing	IP68
Current Range	0.5mA to 8mA	Maximum Shock	5000g
Bias Voltage	10 - 12 Volts DC	EMC	EN61326-1:2013
Settling Time	2 seconds		
Output Impedance	200 Ohms max.		
Case Isolation	>10 ⁸ Ohms at 500 Volts		

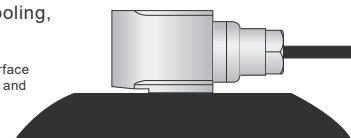
Typical Frequency Response (at 100mV/g)



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 150 - Premium Industrial Vibration Sensor						Cable Length (if integral cable) QXX - length specified in metres						
H	S	1	5	0	S	X	X	X	X	X	X	X	X	X
Extra Options (if required) F - Filtered RT - Temperature Output PT100 S - 90° Side Exit T - Temperature Output Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g		Range ±800g ±250g ±160g ±80g ±32g ±16g		Resonant Frequency 34kHz (2,040kcpm) 33kHz (1,980kcpm) 32kHz (1,920kcpm) 30kHz (1,800kcpm) 28kHz (1,680kcpm) 26kHz (1,560kcpm)		Cable/Connector 34 - 4 Core PUR Cable with removable Stainless Steel Conduit 35 - 3 Core Silicon Cable with removable Stainless Steel Conduit		Mounting Threads 02 - ¼-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male				



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TS980.2



HS-150S Premium Accelerometer

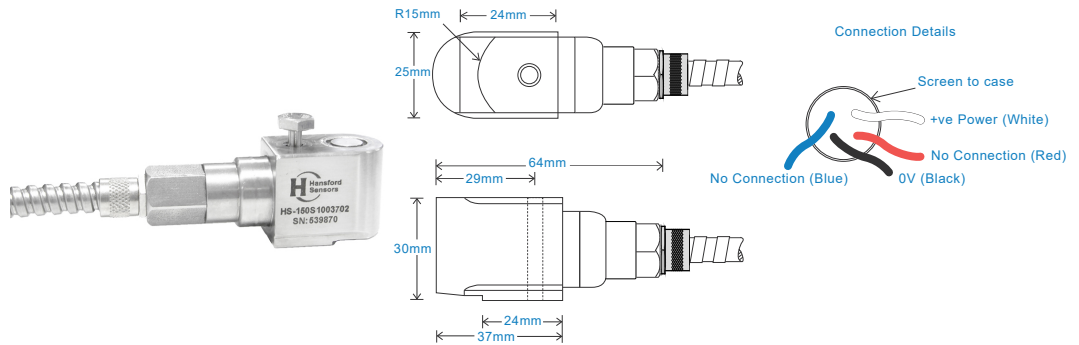
AC acceleration output via 4 Core Polyolefin HFFR with Protective Conduit

Key Features

- High Temperature
- Protective Conduit
- Premium design

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) $\pm 3dB$
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 35mm long
Weight	205gms (nominal) body only
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)

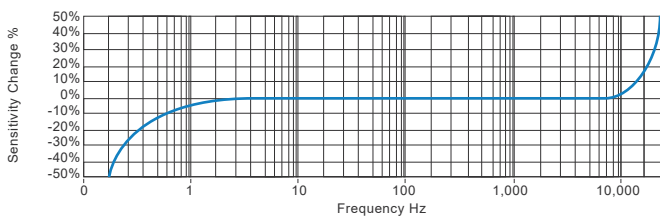
Electrical

Excitation Voltage:	18-30Volts DC
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 to 130°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

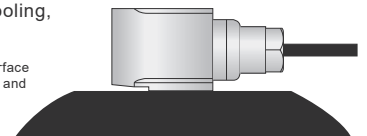
Typical Frequency Response (at 100mV/g)



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	150 - Premium Industrial Vibration Sensor										
H	S	1	5	0	S	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
F - Filtered		010 - 10mV/g		$\pm 800g$		34kHz (2,040kcpm)		37C - 4 Core		02 - 1/4-28" UNF Male	
L - 316L Stainless Steel		030 - 30mV/g		$\pm 250g$		33kHz (1,980kcpm)		Polyolefin HFFR with		06 - M6 x 1mm Male	
RT - Temperature Output PT100		050 - 50mV/g		$\pm 160g$		32kHz (1,920kcpm)		Protective Conduit		08 - M8 x 1.25mm Male	
S - 90° Side Exit		100 - 100mV/g		$\pm 80g$		30kHz (1,800kcpm)					
T - Temperature Output		250 - 250mV/g		$\pm 32g$		28kHz (1,680kcpm)					
Y - 5% tolerance on sensitivity		500 - 500mV/g		$\pm 16g$		26kHz (1,560kcpm)					
H - High Temperature											



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