

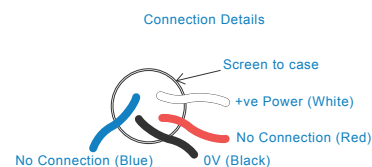
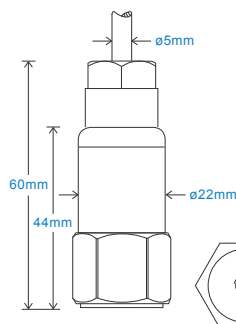
## AC acceleration output via PUR Cable

## Key Features

- Most common seller
- 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)
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/Compression
Mounting Torque	8Nm
Weight	106gms (nominal) body only
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)

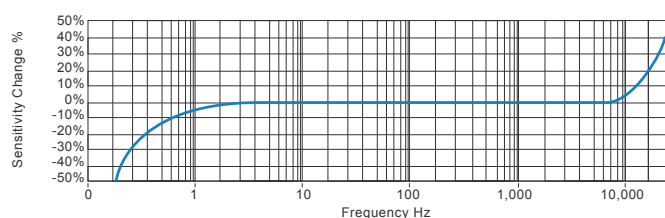
## Electrical

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 <sup>8</sup> Ohms at 500 Volts

## Environmental

Operating Temperature Range	-30 to 90°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

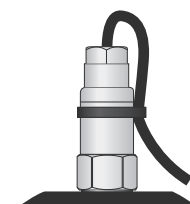
### Typical Frequency Response (at 100mV/g)



## 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 100 - Industrial Vibration Sensor											Cable Length QXX - length specified in metres	
H	S	1	0	0	F	X	X	X	X	X	X	X	X	X
Extra Options (if required) F - Filtered I - Intrinsically Safe L - 316L Stainless Steel RT - Temperature Output PT100 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 28kHz (1,680kcpm) 26kHz (1,560kcpm) 24kHz (1,440kcpm) 22kHz (1,320kcpm) 20kHz (1,200kcpm) 18kHz (1,080kcpm)		Cable/Connector 01 - PUR 02 - Braided 07 - Silicon 08 - Flame Retardant 50 - 2 Pin MS 54 - M12		Mounting Threads 01 - ¼-28" UNF Female 02 - ¼-28" UNF Male 05 - Quick Fit Female 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male 10 - M10 x 1.5mm Male				



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TS466.3



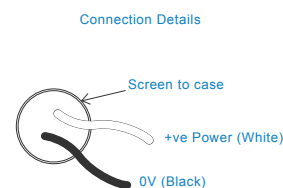
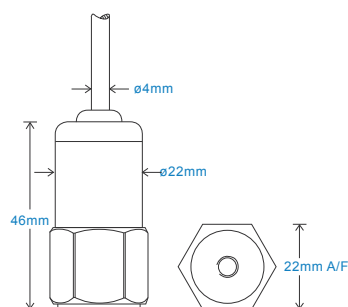
## AC acceleration output via Braided Cable

## Key Features

- Most common seller
- For use with data collector
- Customisable features

## Industries

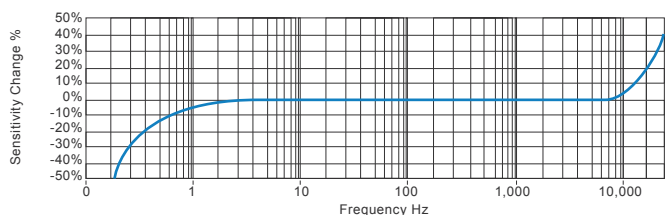
Building services, Pulp and Paper,  
Mining, Metals, Utilities, Automotive,  
Water, Pharmaceutical



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/Compression
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	1.5Hz (90cpm) to 10kHz (600kcpm) $\pm 5\%$	Weight	106gms (nominal) body only
	0.5Hz (30cpm) to 12kHz (720kcpm) $\pm 10\%$	Maximum Cable Length	1000 metres
	0.2Hz (12cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Standard Cable Length	5 metres
Isolation	Base isolated	Screened Cable	Braided - length to be specified with order
Range	see: 'How To Order' table	Mounting Threads	see: 'How To Order' table
Transverse Sensitivity	Less than 5%		

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	-55 to 140°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 <sup>8</sup> Ohms at 500 Volts		

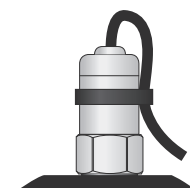
### Typical Frequency Response (at 100mV/g)



## 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**  
100 - Industrial Vibration Sensor

**Cable Length**  
QXX - length specified in metres

**Extra Options (if required)**

Option	Sensitivity	Range	Resonant Frequency	Cable/Connector	Mounting Threads
F - Filtered	010 - 10mV/g	±800g	28kHz (1,680kcpm)	01 - PUR	01 - ¼-28" UNF Female
I - Intrinsically Safe	030 - 30mV/g	±250g	26kHz (1,560kcpm)	02 - Braided	02 - ¼-28" UNF Male
L - 316L Stainless Steel	050 - 50mV/g	±160g	24kHz (1,440kcpm)	07 - Silicon	05 - Quick Fit Female
RT - Temperature Output PT100	100 - 100mV/g	±80g	22kHz (1,320kcpm)	08 - Flame Retardant	06 - M6 x 1mm Male
T - Temperature Output	250 - 250mV/g	±32g	20kHz (1,200kcpm)	50 - 2 Pin MS	08 - M8 x 1.25mm Male
Y - 5% tolerance on sensitivity	500 - 500mV/g	±16g	18kHz (1,080kcpm)	54 - M12	10 - M10 x 1.5mm Male



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TS125.7



# HS-100F Accelerometer

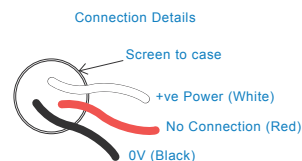
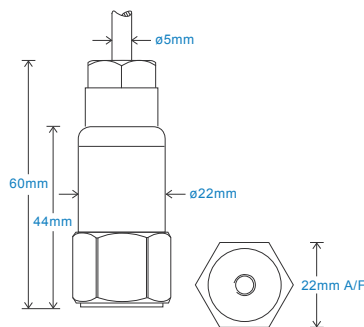
## AC acceleration output via Silicon Cable

### Key Features

- Most common seller
- 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)
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/Compression
Mounting Torque	8Nm
Weight	106gms (nominal) body only
Maximum Cable Length	1000 metres
Standard Cable Length	<b>5 metres</b>
Screened Cable	Silicon - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	100 metres max (10 bar)

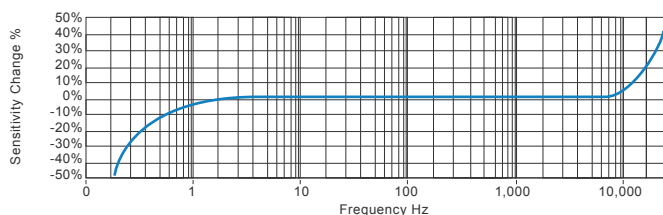
### Electrical

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	-50 to 140°C
Sealing	<b>IP68</b>
Maximum Shock	5000g
EMC	EN61326-1:2013

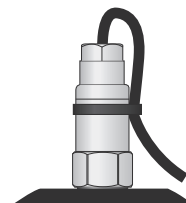
### Typical Frequency Response (at 100mV/g)



### 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 100 - Industrial Vibration Sensor	Cable Length QXX - length specified in metres
H	S	1
0	0	F
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	$\pm 800\text{g}$	28kHz (1,680kcpm)	01 - PUR	01 - 1/4-28" UNF Female
I - Intrinsically Safe	030 - 30mV/g	$\pm 250\text{g}$	26kHz (1,560kcpm)	02 - Braided	02 - 1/4-28" UNF Male
L - 316L Stainless Steel	050 - 50mV/g	$\pm 160\text{g}$	24kHz (1,440kcpm)	07 - Silicon	05 - Quick Fit Female
RT - Temperature Output PT100	100 - 100mV/g	$\pm 80\text{g}$	22kHz (1,320kcpm)	08 - Flame Retardant	06 - M6 x 1mm Male
T - Temperature Output	250 - 250mV/g	$\pm 32\text{g}$	20kHz (1,200kcpm)	50 - 2 Pin MS	08 - M8 x 1.25mm Male
Y - 5% tolerance on sensitivity	500 - 500mV/g	$\pm 16\text{g}$	18kHz (1,080kcpm)	54 - M12	10 - M10 x 1.5mm Male



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TS126.6



# HS-100F Accelerometer

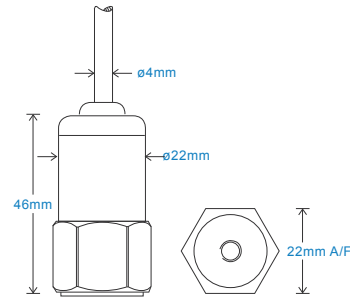
## AC acceleration output via Flame Retardant Cable

### Key Features

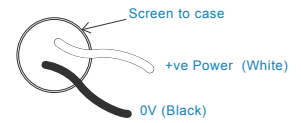
- Low smoke, halogen free cable
- For use with data collector
- Customisable features

### 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/Compression
Mounting Torque	8Nm
Weight	106gms (nominal) body only
Maximum Cable Length	1000 metres
Standard Cable Length	<b>5 metres</b>
Screened Cable	Flame Retardant - length to be specified with order
Mounting Threads	see: 'How To Order' table

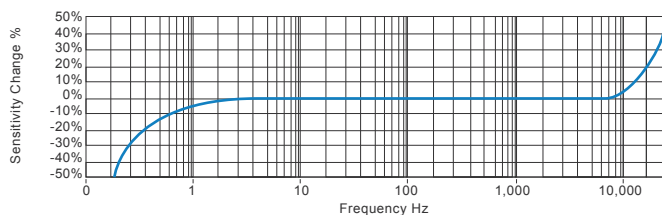
### Electrical

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	-40 to 100°C
Sealing	<b>IP65</b>
Maximum Shock	5000g
EMC	EN61326-1:2013

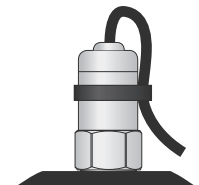
### Typical Frequency Response (at 100mV/g)



### 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 100 - Industrial Vibration Sensor	Cable Length QXX - length specified in metres
H	S	1
0	0	F
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	$\pm 800\text{g}$	28kHz (1,680kcpm)	01 - PUR	01 - 1/4-28" UNF Female
I - Intrinsically Safe	030 - 30mV/g	$\pm 250\text{g}$	26kHz (1,560kcpm)	02 - Braided	02 - 1/4-28" UNF Male
L - 316L Stainless Steel	050 - 50mV/g	$\pm 160\text{g}$	24kHz (1,440kcpm)	07 - Silicon	05 - Quick Fit Female
RT - Temperature Output PT100	100 - 100mV/g	$\pm 80\text{g}$	22kHz (1,320kcpm)	08 - Flame Retardant	06 - M6 x 1mm Male
T - Temperature Output	250 - 250mV/g	$\pm 32\text{g}$	20kHz (1,200kcpm)	50 - 2 Pin MS	08 - M8 x 1.25mm Male
Y - 5% tolerance on sensitivity	500 - 500mV/g	$\pm 16\text{g}$	18kHz (1,080kcpm)	54 - M12	10 - M10 x 1.5mm Male



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TS127.6



# HS-100F Accelerometer

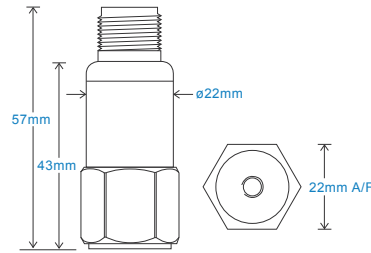
## AC acceleration output via 2 Pin MS Connector

### Key Features

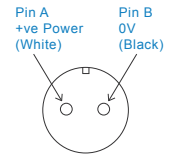
- Most common seller
- For use with data collector
- Customisable features

### Industries

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



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/Compression
Mounting Torque	8Nm
Weight	106gms (nominal) body only
Screened Cable Assembly	see: <a href="http://www.hansfordsensors.com">www.hansfordsensors.com</a> for options
Connector	HS-AA004 - non-booted HS-AA053 or HS-AA054 - booted
Mounting Threads	see: 'How To Order' table

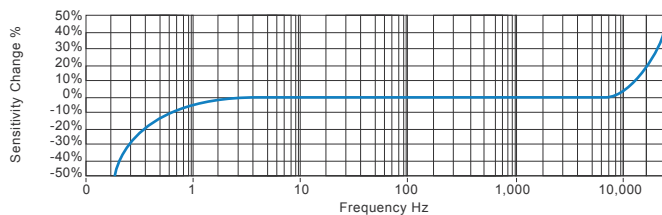
### Electrical

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 140°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

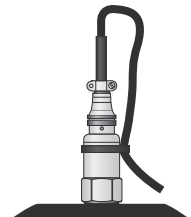
### Typical Frequency Response (at 100mV/g)



### 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	100 - Industrial Vibration Sensor										
H	S	1	0	0	F	X	X	X	X	X	X
Extra Options (If required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
F - Filtered		010 - 10mV/g		$\pm 800\text{g}$		28kHz (1,680kcpm)		01 - PUR		01 - 1/4-28" UNF Female	
I - Intrinsically Safe		030 - 30mV/g		$\pm 250\text{g}$		26kHz (1,560kcpm)		02 - Braided		02 - 1/4-28" UNF Male	
L - 316L Stainless Steel		050 - 50mV/g		$\pm 160\text{g}$		24kHz (1,440kcpm)		07 - Silicon		05 - Quick Fit Female	
RT - Temperature Output PT100		100 - 100mV/g		$\pm 80\text{g}$		22kHz (1,320kcpm)		08 - Flame Retardant		06 - M6 x 1mm Male	
T - Temperature Output		250 - 250mV/g		$\pm 32\text{g}$		20kHz (1,200kcpm)		50 - 2 Pin MS		08 - M8 x 1.25mm Male	
Y - 5% tolerance on sensitivity		500 - 500mV/g		$\pm 16\text{g}$		18kHz (1,080kcpm)		54 - M12		10 - M10 x 1.5mm Male	



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TS124.9



# HS-100F Accelerometer

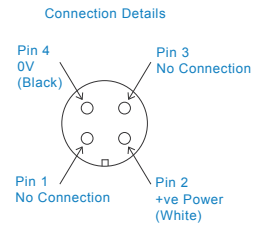
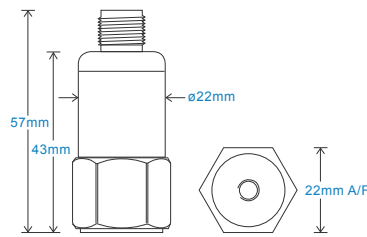
## AC acceleration output via M12 Connector

### Key Features

- Most common seller
- 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)
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/Compression
Mounting Torque	8Nm
Weight	106gms (nominal) body only
Screened Cable Assembly	HS-AC010 - straight HS-AC011 - right angle
Mounting Threads	see: 'How To Order' table

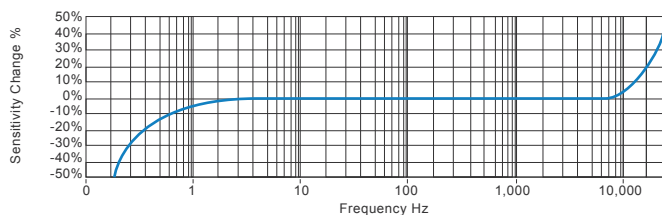
### Electrical

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 140°C
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

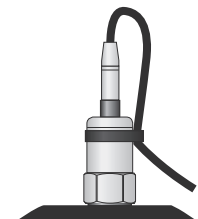
### Typical Frequency Response (at 100mV/g)



### 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	100 - Industrial Vibration Sensor										
H	S	1	0	0	F	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
F - Filtered		010 - 10mV/g		$\pm 800\text{g}$		28kHz (1,680kcpm)		01 - PUR		01 - 1/4-28" UNF Female	
I - Intrinsically Safe		030 - 30mV/g		$\pm 250\text{g}$		26kHz (1,560kcpm)		02 - Braided		02 - 1/4-28" UNF Male	
L - 316L Stainless Steel		050 - 50mV/g		$\pm 160\text{g}$		24kHz (1,440kcpm)		07 - Silicon		05 - Quick Fit Female	
RT - Temperature Output PT100		100 - 100mV/g		$\pm 80\text{g}$		22kHz (1,320kcpm)		08 - Flame Retardant		06 - M6 x 1mm Male	
T - Temperature Output		250 - 250mV/g		$\pm 32\text{g}$		20kHz (1,200kcpm)		50 - 2 Pin MS		08 - M8 x 1.25mm Male	
Y - 5% tolerance on sensitivity		500 - 500mV/g		$\pm 16\text{g}$		18kHz (1,080kcpm)		54 - M12		10 - M10 x 1.5mm Male	



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

TS107.6

