HS-423 Accelerometer

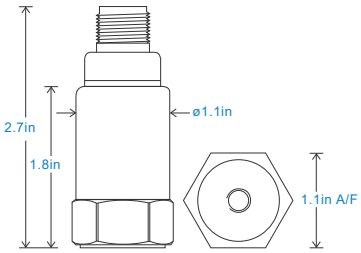
4-20mA acceleration and AC acceleration output via 3 Pin MS Connector

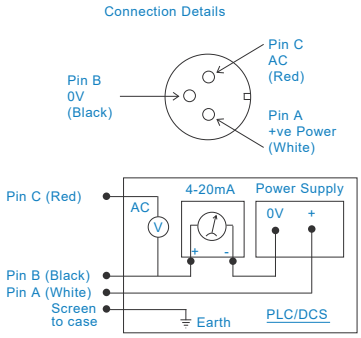
Key Features

- Unique dual output
- For use with PLC/DCS systems and data collectors
- Customisable features

Industries

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





Technical Performance

Mounted Base Resonance	10kHz min
Acceleration Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 72°F
Frequency Response: 4-20mA	600cpm (10Hz) to 300kcpm (5kHz) ± 5%
	- ISO10816
Frequency Response: AC	120cpm (2Hz) to 600kcpm (10kHz) ± 5%
	- ISO10816
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	5.9ft. lbs
Weight	4.7 oz. (nominal) body only
Screened Cable Assembly	see: www.hansfordsensors.com for options
Connector	HS-AA005 - non-booted
	HS-AA068 or HS-0069 - booted
Mounting Threads	see: 'How To Order' table

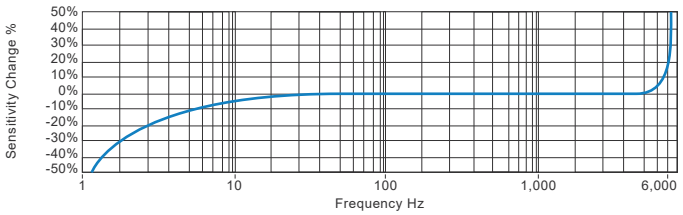
Electrical

Current Output	4-20mA DC current proportional to acceleration and AC acceleration
Bias Voltage	3 Volts DC (nominal)
Supply Voltage	15-30 Volts DC (for 4-20mA)
Settling Time	2 seconds
Output Impedance	Loop Resistance 600 Ohms max. at 24 Volts
Case Isolation	>10^8 Ohms at 500 Volts

Environmental

Operating Temperature Range	-13 to 248ºF
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

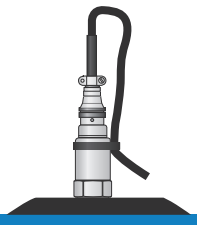
Typical Frequency Response (4-20mA signal)



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	423 - Industrial Vibration Sensor											
H	S	4	2	3	X	X	X	X	X	X	X	X

Extra Options (if required)

F - Filtered	P - Peak Range
L - 316L Stainless Steel	PP - Peak to Peak Range
RT - Temperature Output PT100	
S - 90° Side Exit	
T - Temperature Output	

Acceleration Range (RMS unless specified)	Sensitivity	Range
001 - 0-1g	100mV/g	±30g
002 - 0-2g	100mV/g	±30g
005 - 0-5g	100mV/g	±30g
010 - 0-10g	100mV/g	±30g
100 - 0-100g	50mV/g	±60g

Cable/Connector

01 - PUR
03 - Braided
07 - Silicon
15 - Flame Retardant
52 - 3 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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CE

TS1158U.2

HS-423 Accelerometer

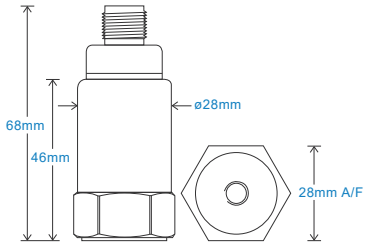
4-20mA acceleration and AC acceleration output via M12 Connector

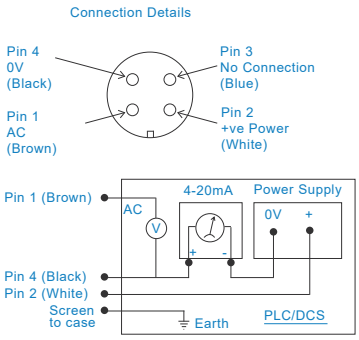
Key Features

- Unique dual output
- For use with PLC/DCS systems and data collectors
- Customisable features

Industries

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





Technical Performance

Mounted Base Resonance	10kHz min
Acceleration Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response	10Hz (600cpm) to 5kHz (300kcpm) ± 5%
	- ISO10816
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	135gms (nominal) body only
Screened Cable Assembly	HS-AC010 - straight
	HS-AC011 - right angle
Mounting Threads	see: 'How To Order' table

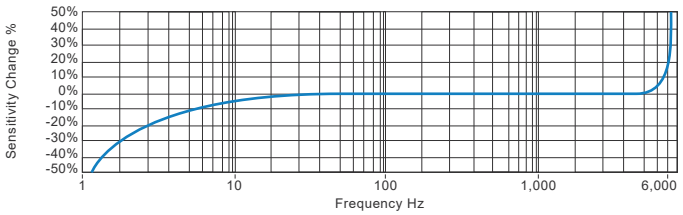
Electrical

Current Output	4-20mA DC current proportional to acceleration and AC acceleration
Bias Voltage	3 Volts DC (nominal)
Supply Voltage	15-30 Volts DC (for 4-20mA)
Settling Time	2 seconds
Output Impedance	Loop Resistance 600 Ohms max. at 24 Volts
Case Isolation	>10^8 Ohms at 500 Volts

Environmental

Operating Temperature Range	-25 to 120ºC
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

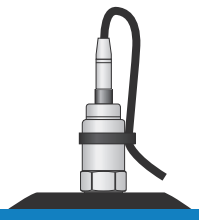
Typical Frequency Response



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
423 - Industrial Vibration Sensor

Cable Length (if integral cable)
QXX - length specified in metres

H	S	4	2	3	X	X	X	X	X	X	X	X	Q	X	X

Extra Options (if required)

F - Filtered	P - Peak Range
L - 316L Stainless Steel	PP - Peak to Peak Range
RT - Temperature Output PT100	
S - 90° Side Exit	
T - Temperature Output	

Acceleration Range (RMS unless specified)	Sensitivity	Range
001 - 0-1g	100mV/g	±30g
002 - 0-2g	100mV/g	±30g
005 - 0-5g	100mV/g	±30g
010 - 0-10g	100mV/g	±30g
100 - 0-100g	50mV/g	±60g

Cable/Connector
01 - PUR
03 - Braided
07 - Silicon
15 - Flame Retardant
52 - 3 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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TS184.7

HS-423 Accelerometer

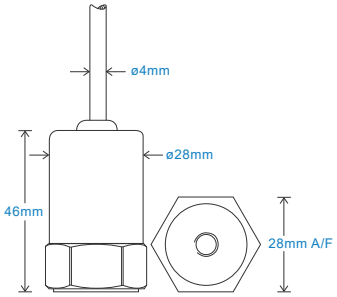
4-20mA acceleration and AC acceleration output via Braided Cable

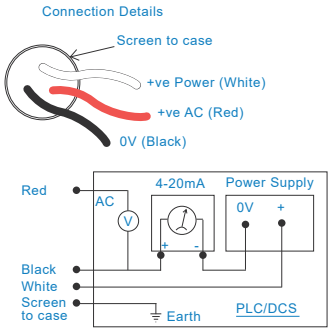
Key Features

- Unique dual output
- For use with PLC/DCS systems and data collectors
- Customisable features

Industries

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





Technical Performance

Mounted Base Resonance	10kHz min
Acceleration Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response	10Hz (600cpm) to 5kHz (300kcpm) ± 5%
	- ISO10816
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	135gms (nominal) body only
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Braided - length to be specified with order
Mounting Threads	see: 'How To Order' table

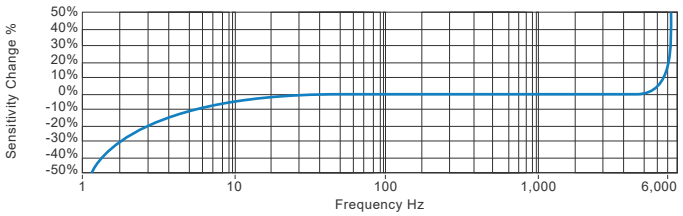
Electrical

Current Output	4-20mA DC current proportional to acceleration and AC acceleration
Bias Voltage	3 Volts DC (nominal)
Supply Voltage	15-30 Volts DC (for 4-20mA)
Settling Time	2 seconds
Output Impedance	Loop Resistance 600 Ohms max. at 24 Volts
Case Isolation	>10^8 Ohms at 500 Volts

Environmental

Operating Temperature Range	-25 to 120ºC
Sealing	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

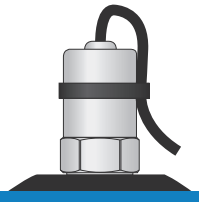
Typical Frequency Response



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
423 - Industrial Vibration Sensor

Cable Length (if integral cable)
QXX - length specified in metres

H	S	4	2	3	X	X	X	X	X	X	X	X	Q	X	X

Extra Options (if required)

F - Filtered	P - Peak Range
L - 316L Stainless Steel	PP - Peak to Peak Range
RT - Temperature Output PT100	
S - 90° Side Exit	
T - Temperature Output	

Acceleration Range (RMS unless specified)	Sensitivity	Range
001 - 0-1g	100mV/g	±30g
002 - 0-2g	100mV/g	±30g
005 - 0-5g	100mV/g	±30g
010 - 0-10g	100mV/g	±30g
100 - 0-100g	50mV/g	±60g

Cable/Connector
01 - PUR
03 - Braided
07 - Silicon
15 - Flame Retardant
52 - 3 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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HS-423 Accelerometer

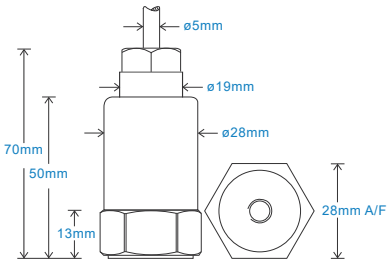
4-20mA acceleration and AC acceleration output via Silicon Cable

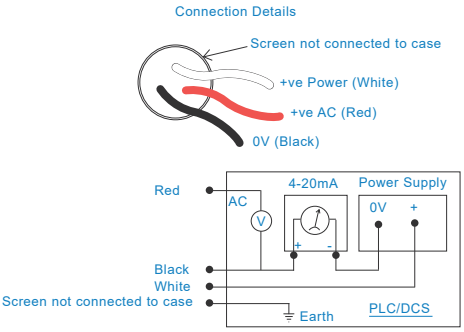
Key Features

- Unique dual output
- For use with PLC/DCS systems and data collectors
- Waterproof

Industries

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





Technical Performance

Mounted Base Resonance	10kHz min
Acceleration Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response: 4-20mA	10Hz (600cpm) to 5kHz (300kcpm) ± 5%
	- ISO10816
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%
	- ISO10816
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	135gms (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
Submersible Depth	100 metres max. (10 bar)

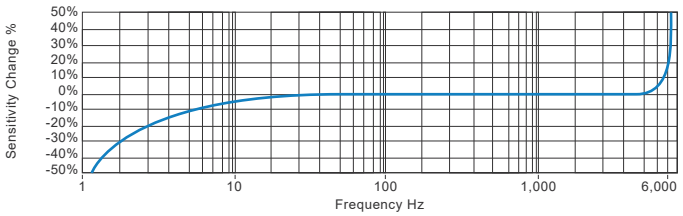
Electrical

Current Output	4-20mA DC current proportional to acceleration and AC acceleration
Bias Voltage	3 Volts DC (nominal)
Supply Voltage	15-30 Volts DC (for 4-20mA)
Settling Time	2 seconds
Output Impedance	Loop Resistance 600 Ohms max. at 24 Volts
Case Isolation	>10^8 Ohms at 500 Volts

Environmental

Operating Temperature Range	-25 to 120ºC
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

Typical Frequency Response (4-20mA signal)



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
423 - Industrial Vibration Sensor

Cable Length (if integral cable)
QXX - length specified in metres

H	S	4	2	3	X	X	X	X	X	X	X	X	Q	X	X

Extra Options (if required)

F - Filtered	P - Peak Range
L - 316L Stainless Steel	PP - Peak to Peak Range
RT - Temperature Output PT100	
S - 90° Side Exit	
T - Temperature Output	

Acceleration Range (RMS unless specified)	Sensitivity	Range
001 - 0-1g	100mV/g	±30g
002 - 0-2g	100mV/g	±30g
005 - 0-5g	100mV/g	±30g
010 - 0-10g	100mV/g	±30g
100 - 0-100g	50mV/g	±60g

Cable/Connector
01 - PUR
03 - Braided
07 - Silicon
15 - Flame Retardant
52 - 3 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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CE

HS-423 Accelerometer

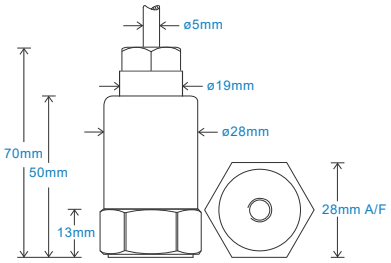
4-20mA acceleration and AC acceleration output via PUR Cable

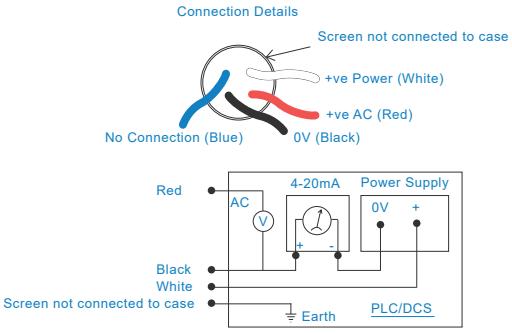
Key Features

- Unique dual output
- For use with PLC/DCS systems and data collectors
- Waterproof and resistant to oil

Industries

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





Technical Performance

Mounted Base Resonance	10kHz min
Acceleration Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response: 4-20mA	10Hz (600cpm) to 5kHz (300kcpm) ± 5%
	- ISO10816
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%
	- ISO10816
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	135gms (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)

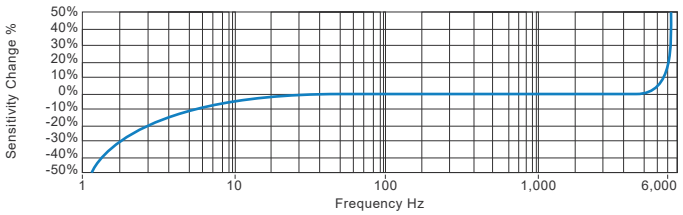
Electrical

Current Output	4-20mA DC current proportional to acceleration and AC acceleration
Bias Voltage	3 Volts DC (nominal)
Supply Voltage	15-30 Volts DC (for 4-20mA)
Settling Time	2 seconds
Output Impedance	Loop Resistance 600 Ohms max. at 24 Volts
Case Isolation	>10^8 Ohms at 500 Volts

Environmental

Operating Temperature Range	-25 to 90°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

Typical Frequency Response (4-20mA signal)



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
423 - Industrial Vibration Sensor

Cable Length (if integral cable)
QXX - length specified in metres

H	S	4	2	3	X	X	X	X	X	X	X	X	Q	X	X

Extra Options (if required)

F - Filtered	P - Peak Range
L - 316L Stainless Steel	PP - Peak to Peak Range
RT - Temperature Output PT100	
S - 90° Side Exit	
T - Temperature Output	

Acceleration Range (RMS unless specified)	Sensitivity	Range
001 - 0-1g	100mV/g	±30g
002 - 0-2g	100mV/g	±30g
005 - 0-5g	100mV/g	±30g
010 - 0-10g	100mV/g	±30g
100 - 0-100g	50mV/g	±60g

Cable/Connector
01 - PUR
03 - Braided
07 - Silicon
15 - Flame Retardant
52 - 3 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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CE

HS-423 Accelerometer

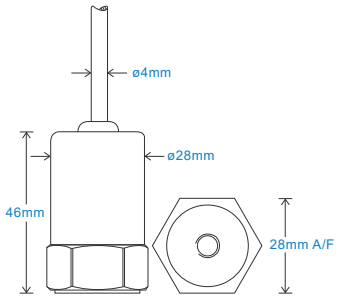
4-20mA acceleration and AC acceleration output via Flame Retardant Cable

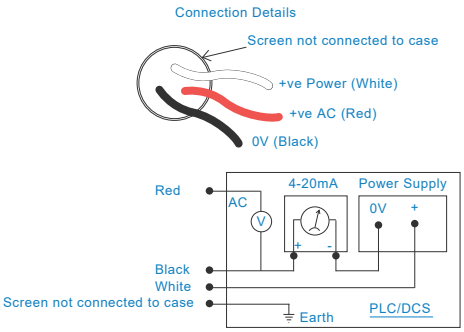
Key Features

- Unique dual output
- For use with PLC/DCS systems and data collectors
- Low smoke, halogen free cable

Industries

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





Technical Performance

Mounted Base Resonance	10kHz min
Acceleration Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response: 4-20mA	10Hz (600cpm) to 5kHz (300kcpm) ± 5%
	- ISO10816
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%
	- ISO10816
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	135gms (nominal) body only
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Flame Retardant - length to be specified with order
Mounting Threads	see: 'How To Order' table

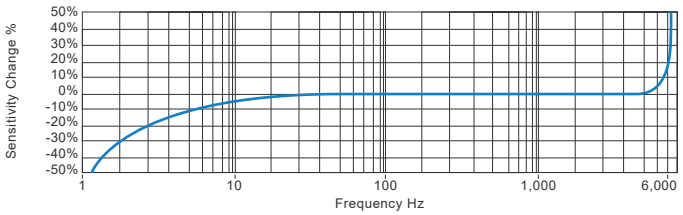
Electrical

Current Output	4-20mA DC current proportional to acceleration and AC acceleration
Bias Voltage	3 Volts DC (nominal)
Supply Voltage	15-30 Volts DC (for 4-20mA)
Settling Time	2 seconds
Output Impedance	Loop Resistance 600 Ohms max. at 24 Volts
Case Isolation	>10^8 Ohms at 500 Volts

Environmental

Operating Temperature Range	-25 to 90°C
Sealing	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

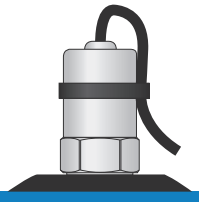
Typical Frequency Response (4-20mA signal)



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
423 - Industrial Vibration Sensor

Cable Length (if integral cable)
QXX - length specified in metres

H	S	4	2	3	X	X	X	X	X	X	X	X	Q	X	X

Extra Options (if required)

F - Filtered	P - Peak Range
L - 316L Stainless Steel	PP - Peak to Peak Range
RT - Temperature Output PT100	
S - 90° Side Exit	
T - Temperature Output	

Acceleration Range (RMS unless specified)	Sensitivity	Range
001 - 0-1g	100mV/g	±30g
002 - 0-2g	100mV/g	±30g
005 - 0-5g	100mV/g	±30g
010 - 0-10g	100mV/g	±30g
100 - 0-100g	50mV/g	±60g

Cable/Connector
01 - PUR
03 - Braided
07 - Silicon
15 - Flame Retardant
52 - 3 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

Hansford Sensors
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CE