HS-421 Accelerometer 4-20mA velocity and AC acceleration output via 3 Pin MS Connector

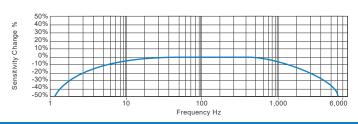


Technical Performance		Mechanical	
Mounted Base Resonance	5kHz min	Case Material	Stainless Steel
Velocity Ranges	see: 'How To Order' table ±10%	Sensing Element/Construction	PZT/Compression
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response: 4-20mA	10Hz (600cpm) to 1kHz (60kcpm) ± 5%	Weight	150gms (nominal) body only
	- ISO10816	Screened Cable Assembly	see: www.hansfordsensors.com for options
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%	Connector	HS-AA005 - non-booted
	- ISO10816		HS-AA068 or HS-AA069 - booted
Isolation	Base isolated	Mounting Threads	see: 'How To Order' table
Range	see: 'How To Order' table		
Transverse Sensitivity	Less than 5%		

- 1	ectrical	
	Actrical	
	CUIUal	

Outputs	4-20mA DC current proportional to
	Range 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

Typical Frequency Response (4-20mA signal)



Applications

Environmental

Maximum Shock

Sealing

EMC

Operating Temperature Range

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.)



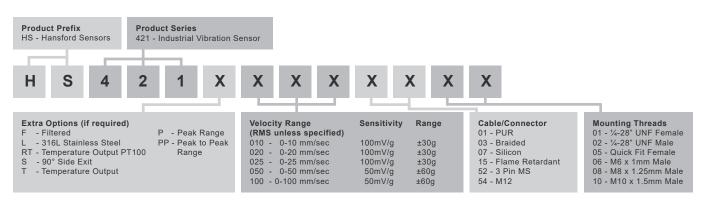
-25 to 120°C

EN61326-1:2013

IP68

5000g

How To Order





www.hansfordsensors.com sales@hansfordsensors.com



We reserve the right to alter the specification of this product without prior notice TS102.10

HS-421 Accelerometer 4-20mA velocity and AC acceleration output via M12 Connector



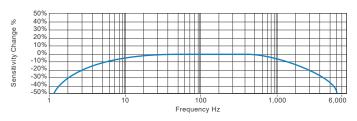
Technical Performance		Mechanical
Mounted Base Resonance	5kHz min	Case Material
Velocity Ranges	see: 'How To Order' table ±10%	Sensing Elemen
	Nominal 80Hz at 22°C	Mounting Torque
Frequency Response: 4-20mA	10Hz (600cpm) to 1kHz (60kcpm) ± 5%	Weight
	- ISO10816	Screened Cable
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%	
	- ISO10816	Mounting Threa
Isolation	Base isolated	
Range	see: 'How To Order' table	
Transverse Sensitivity	Less than 5%	

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	8Nm
Weight	150gms (nominal) body only
Screened Cable Assembly	HS-AC010 - straight
	HS-AC011 - right angle
Mounting Threads	see: 'How To Order' table

Electrical

Outputs	4-20mA DC current proportional to
	Range 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

Typical Frequency Response (4-20mA signal)



Environmental

Operating Temperature Range Sealing Maximum Shock EMC

-25 to 120°C IP67 5000g EN61326-1:2013

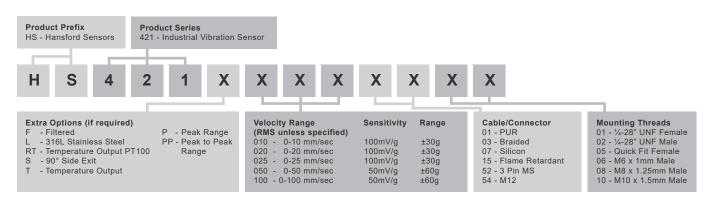
Applications

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









We reserve the right to alter the specification of this product without prior notice TS030.10

HS-421 Accelerometer 4-20mA velocity and AC acceleration output via Braided Cable

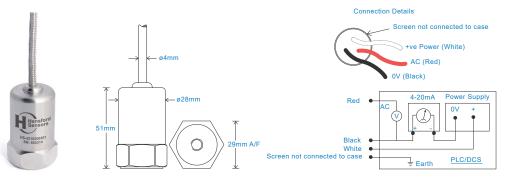
Key Features

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

 Customisable features

Industries

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



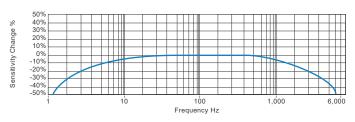
Technical Performance		Mechanical
Mounted Base Resonance	5kHz min	Case Material
Velocity Ranges	see: 'How To Order' table ±10%	Sensing Element/0
	Nominal 80Hz at 22°C	Mounting Torque
Frequency Response: 4-20mA	10Hz (600cpm) to 1kHz (60kcpm) ± 5%	Weight
	- ISO10816	Maximum Cable Le
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%	Standard Cable Le
	- ISO10816	Screened Cable
Isolation	Base isolated	Mounting Threads
Range	see: 'How To Order' table	
Transverse Sensitivity	Less than 5%	

MECHAINCAI	
Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	8Nm
Weight	150gms (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

Outputs	4-20mA DC current proportional to
	Range 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

Typical Frequency Response (4-20mA signal)



Environmental

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.)



-25 to 120°C

EN61326-1:2013

IP65

5000g

How To Order

Product Prefix HS - Hansford Sensors		∶t Series ndustrial V	/ibration S	ensor									egral cable ed in metre	
H S 4	2	1	X	X	X	Х	X	X	X	X	X	X	X	
Extra Options (if require F - Filtered L - 316L Stainless Stee RT - Temperature Output S - 90° Side Exit T - Temperature Output	P PT100	- Peak P - Peak Range	to Peak	(RMS) 010 - 020 - 025 - 050 -	ty Range unless sp 0-10 mm 0-20 mm 0-25 mm 0-50 mm 0-100 mm	ecified) /sec /sec /sec /sec	Sensitiv 100mV/ 100mV/ 100mV/ 50mV/ 50mV/	g ±3 g ±3 g ±3 g ±6	Og Og Og	01 - PI 03 - Bi 07 - Si 15 - FI	aided licon ame Retai Pin MS		01 - ¼-28 02 - ¼-28 05 - Quic 06 - M6 × 08 - M8 ×	g Threads " UNF Female " UNF Male k Fit Female 1mm Male 1.25mm Male x 1.5mm Male







We reserve the right to alter the specification of this product without prior notice \$\$T\$S012.11

HS-421 Accelerometer 4-20mA velocity and AC acceleration output via Silicon Cable

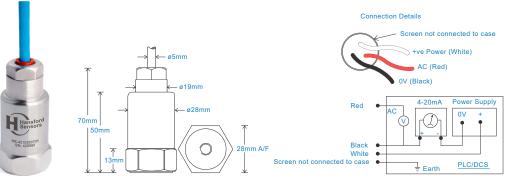
Key Features

Unique output

- · For use with PLC/DCS systems and data collectors
- Waterproof

Industries

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

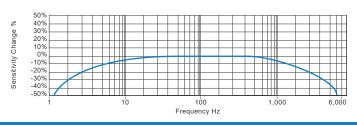


Technical Performance		Mechanical	
Mounted Base Resonance	5kHz min	Case Material	Stainless Steel
Velocity Ranges	see: 'How To Order' table ±10%	Sensing Element/Construction	PZT/Compression
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response: 4-20mA	10Hz (600cpm) to 1kHz (60kcpm) ± 5%	Weight	150gms (nominal) body only
	- ISO10816	Maximum Cable Length	1000 metres
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%	Standard Cable Length	5 metres
	- ISO10816	Screened Cable	Silicon - length to be specified with order
Isolation	Base isolated	Mounting Threads	see: 'How To Order' table
Range	see: 'How To Order' table	Submersible Depth	100 metres max (10 bar)
Transverse Sensitivity	Less than 5%		

Electrical

Outputs	4-20mA DC current proportional to
	Range 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

Typical Frequency Response (4-20mA signal)



Environmental

Operating Temperature Range Sealing Maximum Shock EMC

-25 to 120°C IP68 5000g EN61326-1:2013

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 421 - Industrial Vibration S	Sensor		Cable Length (if int QXX - length specifi	
H S 4	2 1 X	x x x	x x x	x x x	x
Extra Options (if required F - Filtered L - 316L Stainless Steel RT - Temperature Output F S - 90° Side Exit T - Temperature Output	P - Peak Range PP - Peak to Peak	Velocity Range (RMS unless specified) 010 - 0-10 mm/sec 020 - 0-20 mm/sec 025 - 0-25 mm/sec 050 - 0-50 mm/sec 100 - 0-100 mm/sec	Sensitivity Range 100mV/g ±30g 100mV/g ±30g 100mV/g ±30g 50mV/g ±60g 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 1nm Male 08 - M8 x 1.25mm Male 10 - M10 x 1.5mm Male







We reserve the right to alter the specification of this product without prior notice TS017.12

HS-421 Accelerometer 4-20mA velocity and AC acceleration output via PUR Cable

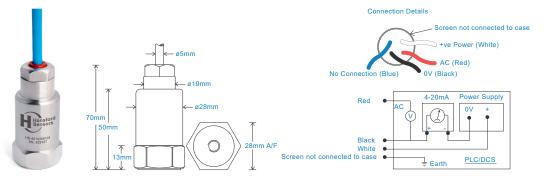
Key Features

• For use with PLC/DCS systems

- and data collectors Waterproof
- · Resistant to oil

Industries

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



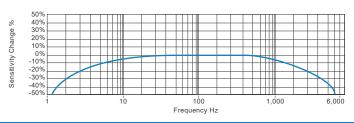
Technical Performance		Mechanical	
Mounted Base Resonance	5kHz min	Case Material	Stainless Steel
Velocity Ranges	see: 'How To Order' table ±10%	Sensing Element/Construction	PZT/Compression
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response: 4-20mA	10Hz (600cpm) to 1kHz (60kcpm) ± 5%	Weight	150gms (nominal)
	- ISO10816	Maximum Cable Length	1000 metres
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%	Standard Cable Length	5 metres
	- ISO10816	Screened Cable	PUR - length to be specified with order
Isolation	Base isolated	Mounting Threads	see: 'How To Order' table
Range	see: 'How To Order' table	Submersible Depth	100 metres max (10 bar)
Transverse Sensitivity	Less than 5%		

.

Electrical

Outputs	4-20mA DC current proportional to
	Range 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

Typical Frequency Response (4-20mA signal)



Environmental

Applications

Operating Temperature Range
Sealing
Maximum Shock
EMC

-25 to 90°C
IP68
5000g
EN61326-1:2013

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 421 - Ind	Series lustrial Vibratior	Sensor								jth (if int th specifi		
H S 4	2	1 X	X	X	X	X	X	X	X	X	X	X	
Extra Options (if require F - Filtered L - 316L Stainless Steel RT - Temperature Output S - 90° Side Exit T - Temperature Output	, P PP	- Peak Range - Peak to Peak Range	(RMS 010 - 020 - 025 - 050 -	ity Range unless sp 0-10 mn 0-20 mn 0-25 mn 0-50 mn 0-100 mn	Decified) n/sec n/sec n/sec n/sec	Sensitivi 100mV/g 100mV/g 100mV/g 50mV/g 50mV/g	±3(±3(±3(±6(Og Og Og	01 - PI 03 - Bi 07 - Si 15 - FI	aided licon ame Reta Pin MS		01 - ½ 02 - ½ 05 - Q 06 - M 08 - M	ting Threads -28" UNF Fer -28" UNF Mal uick Fit Fema 16 x 1mm Mal 18 x 1.25mm N 110 x 1.5mm N







We reserve the right to alter the specification of this product without prior notice TS186.9

HS-421 Accelerometer

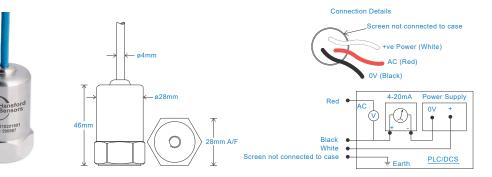
4-20mA velocity and AC acceleration output via Flame Retardant Cable

Key Features

- Unique 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	5kHz min
Velocity Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response: 4-20mA	10Hz (600cpm) to 1kHz (60kcpm) ± 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%

Case Material	Stainless Stee	I
Sensing Element/Const	ruction PZT/Compression	n I
Mounting Torque	8Nm	ı
Weight	150gms (nominal) body only	/
Maximum Cable Length	1000 metres	3
Standard Cable Length	5 metres	3
Screened Cable	Flame Retardant - length to be specified with order	r
Mounting Threads	see: 'How To Order' table	3

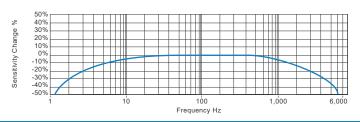
Electrical

Outputs	4-20mA DC current proportional to
	Range 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

nA) EMC nds blts

Sealing

Typical Frequency Response (4-20mA signal)



Applications

Environmental

Maximum Shock

Operating Temperature Range

Mechanical

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.)



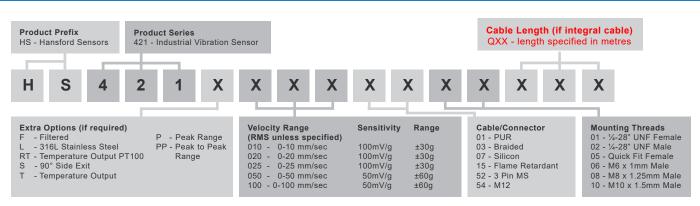
-25 to 90°C

EN61326-1:2013

IP65

5000g

How To Order









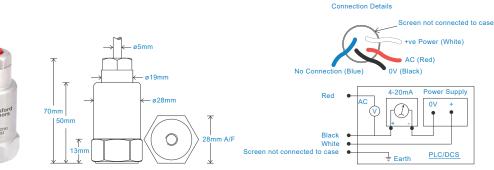
We reserve the right to alter the specification of this product without prior notice TS185.9

HS-421 Accelerometer 4-20mA velocity and AC acceleration output via 4 Core Polyolefin HFFR



Industries

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



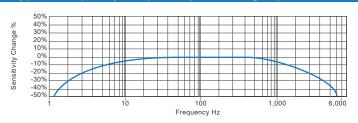
Technical Performance	
Mounted Base Resonance	5kHz min
Velocity Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response: 4-20mA	10Hz (600cpm) to 1kHz (60kcpm) ± 5%
	- ISO10816
Frequency Response: AC	2Hz (120cpm) to 10kHz (600kcpm) ± 5%
	- ISO10816
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical		
Case Material		Stainless Steel
Sensing Element/Constr	ruction	PZT/Compression
Mounting Torque		8Nm
Weight		150gms (nominal)
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

Outputs	4-20mA DC current proportional to
	Range 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

Typical Frequency Response (4-20mA signal)



Environmental

Operating Temperature Range	-55 to 130°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

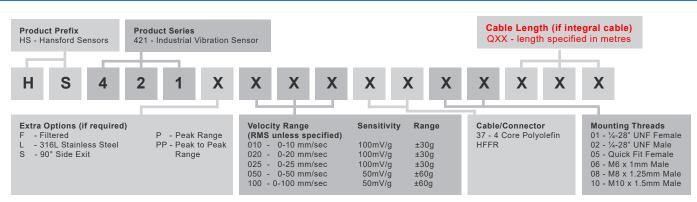
Applications

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









We reserve the right to alter the specification of this product without prior notice TS1107.3