

HS-422I/M Intrinsically Safe Accelerometer

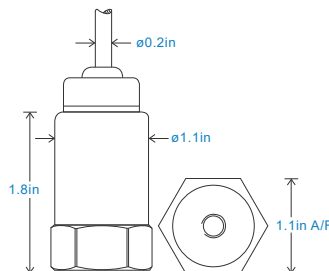
4-20mA acceleration output via Flame Retardant Cable

Key Features

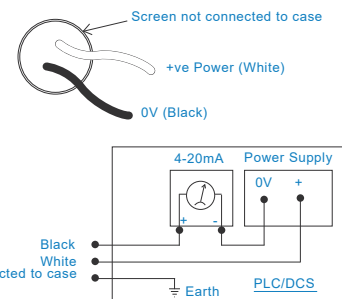
- Intrinsically Safe with European, USA, Australian, South African, and Indian approvals
- Approved SIL 2 and SIL 3
- For use with PLC/DCS systems
- Low smoke, halogen free cable

Industries

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



Connection Details



Technical Performance

Mounted Base Resonance	10kHz min
Acceleration Ranges	see: 'How To Order' table $\pm 10\%$
	Nominal 80Hz at 72°F
Frequency Response	600cpm (10Hz) to 300kcpm (5kHz) $\pm 5\%$
	- ISO10816
Isolation	Base isolated
Range	50g peak
Transverse Sensitivity	Less than 5%

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	5.9ft. lbs
Weight	5.2 oz. (nominal)
Maximum Cable Length	3,280 ft.
Standard Cable Length	16 ft.
Shielded Cable	Flame Retardant - length to be specified with order
Mounting Threads	see: 'How To Order' table

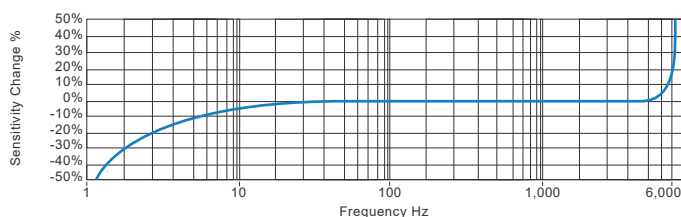
Electrical

Current Output	4-20mA DC proportional to acceleration
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	see: attached certification details
Sealing	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

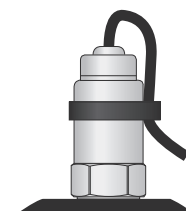
Typical Frequency Response



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.)



Certifications



This product is certified in accordance with
UL 913, 8th Ed. Rev. December 6, 2013
CAN/CSA C22.2 No. 157-92 (R2012) +Upd1 +Upd2



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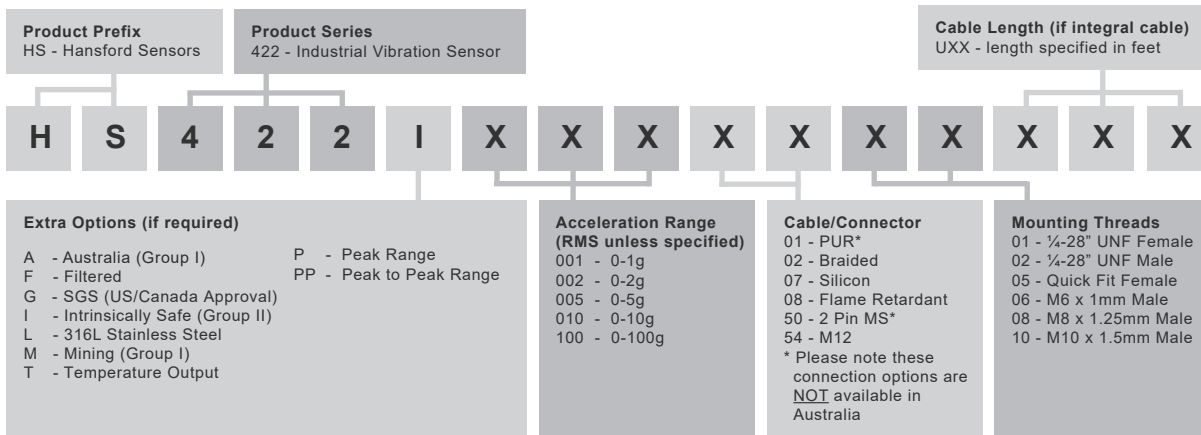


4-20mA acceleration output via Flame Retardant Cable

Intrinsically Safe Requirements

Maximum Cable Length		nominal 100 metres see attached system drawings	US/Canada Approvals	Certificate No. SGSNA/18/SUW/0000231 Class I, II, III, Division 1, 2, Groups A - G, T4, -40°C to +110°C, Class I, Zone 0, AEx, ia, IIC, T4, Ga, -40°C to +110°C
Certificate details: Group I + II		IECEx BAS08.0034X Baseefa08ATEX0086X	Zone 20, AEx, ia, IIIC, T130°C, IP65, Da, -40°C to +110°C	
		Ⓔ II 1GD Ex ia IIC T6 Ga Ex ia IIIC T80°C IP65 Da	Barrier	1 x Pepperl + Fuchs Galvanic Isolator KFD2-STC4-Ex1, which has superseded KFD2-CR-Ex1.30300 (BAS00ATEX7164)
		Ⓔ I M1 Ex ia I Ma (-40°C ≤ Ta ≤ +60°C)	see attached system drawings	
Certificate details: Group II		Ⓔ II 1GD Ex ia IIC T4 Ga Ex ia IIIC T130°C IP65 Da (-40°C ≤ Ta ≤ +110°C)	1 x MTL Zener Barrier MTL7787+ (BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Z787 (BAS01ATEX7005) or any other barrier that conforms to system drawings attached	
			System Connections for Zener Barrier	see attached system drawings
Accelerometer System Certificate		Baseefa08Y0087 Ex ia IIC T6 (-40°C ≤ Ta ≤ +60°C) *On request - consult Sales Office	System Connections for Galvanic Isolator	see attached system drawings
Terminal Parameters		Ui = 28V, li = 115mA, Pi = 0.65W Group II Ui = 16.5V Pi = 0.65W or Ui = 28V li = 115mA Pi = 0.65W Group I	Terminal Parameters	Ui = Vmax = 28V li = Imax = 115mA Pi = 0.65W
500V Isolation		Units Will Pass A 500V Isolation Test	Notes:	Special conditions of safe use for Group II dust. The free end of the cable on the integral cable version of the apparatus must be terminated in an appropriately certified dust-proof enclosure. The unit has no serviceable parts.
Certified Temperature Range		Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +60°C) (Gas) Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +110°C) (Gas) Ex ia IIIC T80°C IP65 Da (-40°C ≤ Ta ≤ +60°C) (Dust) Ex ia IIIC T130°C IP65 Da (-40°C ≤ Ta ≤ +110°C) (Dust) Ex ia I Ma (-40°C ≤ Ta ≤ +60°C) (Mining)		
Australia Approval Group 1		IECEx ITA 10.0003X Ex ia I Ma (-40°C ≤ Ta ≤ +60°C)		
South African Approval		Certificate No. MASC MS/16-0229X Group I and II (As Baseefa/ATEX)		

How To Order



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