

HS-422I/M Intrinsically Safe Accelerometer

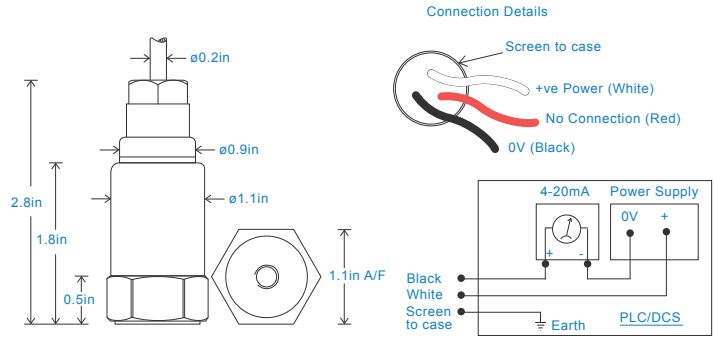
4-20mA acceleration output via Silicon Cable

Key Features

- Intrinsically Safe with European, USA and South African approvals
- For use with PLC/DCS systems
- 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 $\pm 10\%$
	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	Silicon - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	328 ft. max. (10 bar)

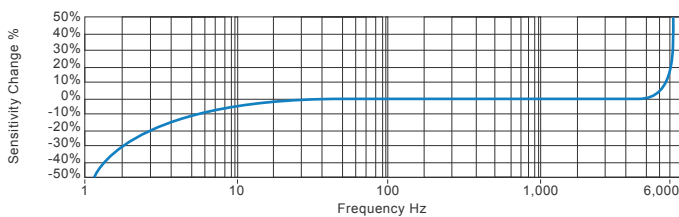
Electrical

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	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

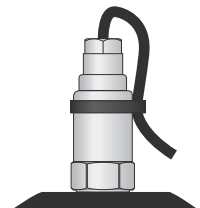
Typical Frequency Response



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



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TS068U.6



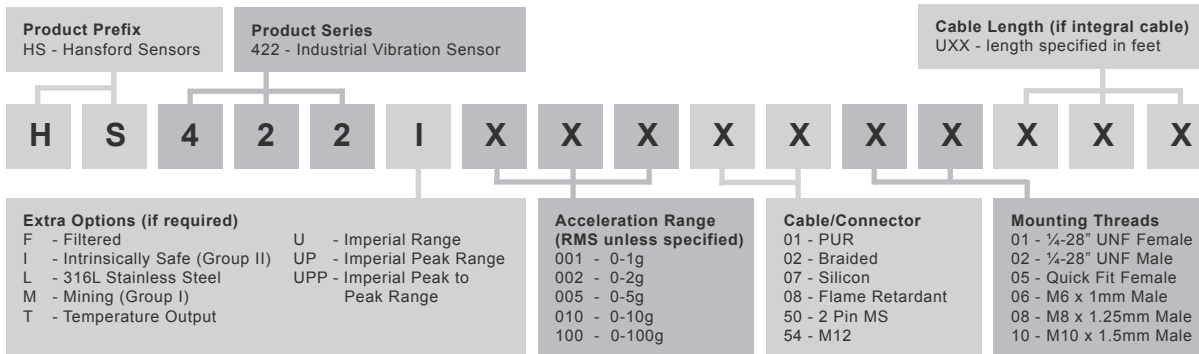
HS-422I/M Intrinsically Safe Accelerometer

4-20mA acceleration output via Silicon Cable

Intrinsically Safe Requirements

Maximum Cable Length	nominal 100 metres see attached system drawings	US/Canada Approvals	Certificate No. USTC/15/FAI/01350
Certificate details: Group I + II	IECEX BAS08.0034X Baseefa08ATEX0086X Ⓢ II 1GD Ex ia IIC T6 Ga Ex ia IIIC T80°C IP65 Da Ⓢ I M1 Ex ia I Ma (-40°C ≤ Ta ≤ +60°C)	Class I, II, III, Division 1, 2, Groups A - G, T6, -40°C to +60°C, IP65 Class I, Zone 0, AEx, ia, IIC, T6, Ga, -40°C to +60°C Zone 20, AEx, ia, IIIC, T80°C, IP65, Da, -40°C to +60°C	
Accelerometer System Certificate	Baseefa08Y0087 Ex ia IIC T6 (-40°C ≤ Ta ≤ +60°C) *On request - consult Sales Office	Barrier	1 x Pepperl + Fuchs Galvanic Isolator KFD2-STC4-Ex1, which has superseded KFD2-CR-Ex1.30300 (BAS00ATEX7164) see attached system drawings
Terminal Parameters	Ui = 28V, Ii = 115mA, Pi = 0.65W Group II Ui = 16.5V Pi = 0.65W or Ui = 28V Ii = 115mA Pi = 0.65W Group I	System Connections for Zener Barrier	see attached system drawings
500V Isolation	Units Will Pass A 500V Isolation Test	System Connections for Galvanic Isolator	see attached system drawings
Certified Temperature Range	Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +60°C) (Gas) Ex ia IIIC T80°C IP65 Da (-40°C ≤ Ta ≤ +60°C) (Dust) Ex ia I Ma (-40°C ≤ Ta ≤ +60°C) (Mining)	Terminal Parameters	Ui = Vmax = 28V Ii = Imax = 115mA Pi = 0.65W
South African Approval	Certificate No. MASC MS/16-0229X Group I and II (As Baseefa/ATEX)	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.

How To Order



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