HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via M12 Connector

Key Features

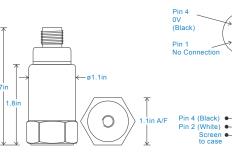
· Intrinsically Safe with European, USA, Indian and South African approvals

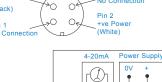
- · For use with PLC/DCS systems
- · Customizable features

Industries

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







⊒ Earth



Mounted Base Resonanc	e 5kHz min
Velocity Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 72°F
Frequency Response	600cpm (10Hz) to 60kcpm (1kHz) ± 5% - ISO10816
Isolation	Base isolated
Range	50g peak
Transverse Sensitivity	Less than 5%

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2.

Case Material Sensing Element/Construction Mounting Torque Weight Sheilded Cable Assembly Mounting Threads

Stainless Steel PZT/Compression 5.9ft. lbs 5.2 oz. (nominal) HS-AC010 - straight HS-AC011 - right angle see: 'How To Order' table

PLC/DCS

Pin 3 No Connection

Electrical

Current Output Supply Voltage Settling Time **Output Impedance** Case Isolation

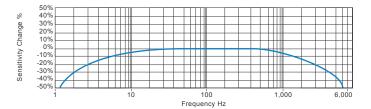
4-20mA DC proportional to Velocity Range 15-30 Volts DC (for 4-20mA) 2 seconds Loop Resistance 600 Ohms max. at 24 Volts >108 Ohms at 500 Volts

Environmental

Operating Temperature Range Sealing Maximum Shock EMC

see: attached certification details IP67 5000g 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 TS064U.10

Connection Details

HS-420I/M Intrinsically Safe Accelerometer

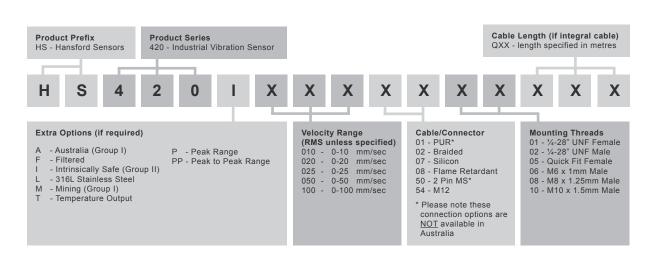
4-20mA velocity output via M12 Connector

Intrinsically Safe Requir	rements			
Maximum Cable Length	See website: www.hansfordsensors.com	US/Canada Approvals Certifica	ate No. SGSNA/18/SUW/0000231	
	see attached system drawings	Class I, II, III, Division 1, 2, G	roups 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	Zone 20, AEx, ia, IIIC, T130°C, IP65, Da, -40°C to +11		
	Baseefa08ATEX0086X			
	ll 1GD	Barrier 1 x I	Pepperl + Fuchs Galvanic Isolator	
	Ex ia IIC T6 Ga	KFD2-	STC4-Ex1, which has superseded	
	Ex ia IIIC T80°C IP65 Da	KFD2-CR-Ex1.30300 (BAS00ATEX7164)		
	🗟 l M1	see attached system drawings		
	Ex ia I Ma		, ,	
	(-40°C ≤ Ta ≤ +60°C)	1 x MTL Zener Barr	ier MTL7787+ (BAS01ATEX7217)	
Certificate details: Group II	©II 1GD	© II 1GD or Pepperl + Fuchs Ze		
Oortinoate details. Group in	Ex ia IIC T4 Ga	Z787 (BAS01AT	EX7005) or any other barrier that	
	Ex ia IIIC T130°C IP65 Da	confo	orms to system drawings attached	
	(-60°C ≤ Ta ≤ +110°C)			
	, ,	System Connections for Zener Barrier	see attached system drawings	
Accelerometer System Certificate Baseefa08Y0087				
	Ex ia IIC T6 (-40°C ≤ Ta ≤ +60°C)	System Connections for Galvanic Isolator	see attached system drawings	
	*On request - consult Sales Office			
		Terminal Parameters	Ui = Vmax = 28V	
Terminal Parameters	Ji = 28V, li = 115mA, Pi = 0.65W Group II		li = Imax = 115mA	
	Ui = 16.5V Pi = 0.65W		Pi = 0.65W	
C	or Ui = 28V li = 115mA Pi = 0.65W Group I			
		•	ions of safe use for Group II dust.	
500V Isolation	Units Will Pass A 500V Isolation Test		of the cable on the integral cable	
		version of the	e apparatus must be terminated in	
	Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +60°C) (Gas)		ely certified dust-proof enclosure.	
Ex ia IIC T4 Ga (-40°C ≤ Ta ≤ +110°C) (Gas)			The unit has no serviceable parts.	
	80°C IP65 Da (-40°C ≤ Ta ≤ +60°C) (Dust)			
Ex la IIIC 113	0°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			
, actuality (pproter croup 1	Ex ia I Ma			
	$(-40^{\circ}C \le Ta \le +60^{\circ}C)$			
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South African Approval

Certificate No. MASC MS/16-0229X Group I and II (As Baseefa/ATEX)

#### How To Order





#### www.hansfordsensors.com sales@hansfordsensors.com



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