# HS-420I/M Intrinsically Safe Accelerometer 4-20mA velocity output via Flame Retardant Cable for use with Terminal Head



### **Technical Performance**

Mounted Base Resonance	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%

Case Material	
Sensing Element/Construction	
Mounting Torque	
Weight	
External Cable Length	
Integral Cable Length	
Cable Connections	
Mounting Threads	

Stainless Steel PZT/Compression 5.9ft. lbs 5.2 oz. (nominal) site cable up to 3,280 ft. up to 12in Screw Terminals see: 'How To Order' table

### 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

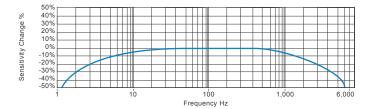
### Environmental

Mechanical

**Operating Temperature Range** Sealing Maximum Shock EMC

see: attached certification details IP65 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











CE



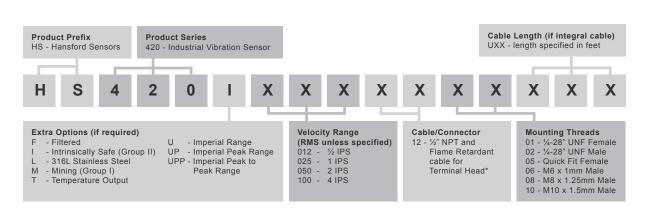
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	Intrinsically Safe Requiren	nents			
	Maximum Cable Length	nominal 100 metres see attached system drawings	US/Canada Approvals Class I, II, III, Divis	Certificate No. USTC/15/ sion 1, 2, Groups A - G, T6, -40°C to +6	
		, , ,	Clas	ss I, Zone 0, AEx, ia, IIC, T6, Ga, -40°0	C to +60°C
	Certificate details: Group I + II	IECEx BAS08.0034X	Zone 2	0, AEx, ia, IIIC, T80°C, IP65, Da, -40°0	C to +60°C
		Baseefa08ATEX0086X			
		ତ୍ତିII 1GD	Barrier	1 x Pepperl + Fuchs Galvar	nic Isolator
		Ex ia IIC T6 Ga		KFD2-STC4-Ex1, which has s	superseded
		Ex ia IIIC T80°C IP65 Da		KFD2-CR-Ex1.30300 (BAS00A	ATEX7164)
		🐼 I M1		see attached system	m drawings
		Ex ia I Ma			
(-40°C ≤ Ta ≤ +60°C)		1 x I	MTL Zener Barrier MTL7787+ (BAS01A	,	
				or Pepperl + Fuchs Ze	
Accelerometer System Certificate Baseefa08Y0087		Z787 (BAS01ATEX7005) or any other barrier that			
Ex ia IIC T6 (-40°C ≤ Ta ≤ +60°C)		conforms to system drawings attached			
		*On request - consult Sales Office	Queters Consections for Zone		
	Terminal Parameters		System Connections for Zene	er Barrier see attached system	n drawings
	Terminal Parameters	Ui = 28V, Ii = 115mA, Pi = 0.65W Group II Ui = 16.5V Pi = 0.65W	System Connections for Galv	anic Isolator see attached system	n drawings
		or Ui = 28V li = 115mA Pi = 0.65W Group I	System Connections for Carv	and isolator see attached system	ii ulawiiigs
		01 01 - 28V 11 - 11511A PI - 0.85VV Group 1	Terminal Parameters		max = 28V
	500V Isolation	Units Will Pass A 500V Isolation Test	Terminal Parameters		max = 20V ax = 115mA
		Child Will P 433 77 000 V Isolation Test			Pi = 0.65W
	Certified Temperature Range	Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +60°C) (Gas)			11-0.0000
		T80°C IP65 Da ( -40°C $\leq$ Ta $\leq$ +60°C) (Dust)	Notes:	Special conditions of safe use for Gro	oup II dust.
		Ex ia I Ma ( $-40^{\circ}C \le Ta \le +60^{\circ}C$ ) (Mining)		The free end of the cable on the inte	
		version of the apparatus must be terminated in			
South African Approval Certificate No. MASC MS/16-0229X			an appropriately certified dust-proof		
		Group I and II (As Baseefa/ATEX)		The unit has no service	

How To Order



\*HS-AA042 or HS-AA052 Terminal Head to be purchased separately



www.hansfordsensors.com sales@hansfordsensors.com



We reserve the right to alter the specification of this product without prior notice TS080U.8