HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via PUR Cable

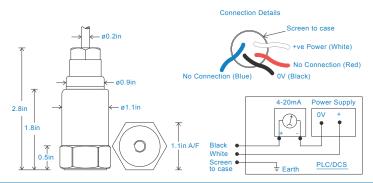
Key Features

- Intrinsically Safe with European, USA and South African approvals
- For use with PLC/DCS systems
- · Waterproof and resistant to oil

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 72°F

Frequency Response 600cpm (10Hz) to 60kcpm (1kHz) ± 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 5.2 oz. (nominal) Weight Maximum Cable Length 3,280 ft. Standard Cable Length Shielded Cable PUR - length to be specified with order see: 'How To Order' table Mounting Threads Submersible Depth 328 ft. max (10 bar)

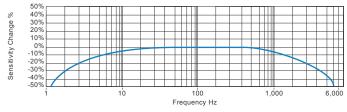
Electrical

Current Output 4-20mA DC proportional to Velocity Range
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 >108 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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Intrinsically Safe Requirements

Maximum Cable Length	nominal 100 metres	US/Canada Approvals	Certificate No. USTC/15/FAI/01350
	see attached system drawings	Class I, II, III, Division 1, 2, Gr	oups A - G, T6, -40°C to +60°C, IP65
		Class I, Zone 0,	AEx, ia, IIC, T6, Ga, -40°C to +60°C
Certificate details: Group I + II	IECEx BAS08.0034X	Zone 20, AEx, ia, IIIC, T80°C, IP65, Da, -40°C to +60°C	
	Baseefa08ATEX0086X		
	®II 1GD	Barrier 1	x Pepperl + Fuchs Galvanic Isolator
	Ex ia IIC T6 Ga		02-STC4-Ex1, which has superseded
	Ex ia IIIC T80°C IP65 Da		2-CR-Ex1.30300 (BAS00ATEX7164)
	© I M1	· · ·	see attached system drawings
	Ex ia I Ma		ood attached cyclem araninge
	(-40°C ≤ Ta ≤ +60°C)	1 x MTL Zener F	Barrier MTL7787+ (BAS01ATEX7217)
	(100=10=000)	or Pepperl + Fuchs Zener Barrier	
Accelerometer System Certificate	Baseefa08Y0087	Z787 (BAS01ATEX7005) or any other barrier that	
, too or o	Ex ia IIC T6 (-40°C \leq Ta \leq +60°C)	conforms to system drawings attached	
	*On request - consult Sales Office		omornis to system drawings attached
	on request consult cures office	System Connections for Zener Barrier	see attached system drawings
Terminal Parameters	Ui = 28V, Ii = 115mA, Pi = 0.65W Group II	System Commodicing for Zener Barner	ooc attached cyclem arawings
Terrimar Furameters	Ui = 16.5V Pi = 0.65W	System Connections for Galvanic Isolator	see attached system drawings
		dystem definedions for darvanic isolator	see attached system drawings
	or Ui = 28V Ii = 115mA Pi = 0.65W Group I	T : 15	
500V Isolation	Halle Will Days A 500V Is also as Tool	Terminal Parameters	Ui = Vmax = 28V
300 V Isolation	Units Will Pass A 500V Isolation Test		Ii = Imax = 115mA
Contified Townsontons Donne	5 . HO TO C . (1000 . T		Pi = 0.65W
Certified Temperature Range	Ex ia IIC T6 Ga (-40°C \leq Ta \leq +60°C) (Gas)	Matan	
Ex ia IIIC	T80°C IP65 Da (-40°C ≤ Ta ≤ +60°C) (Dust)	Notes: Special conditions of safe use for Group II dust.	
	Ex ia I Ma (-40° C \leq Ta \leq $+60^{\circ}$ C) (Mining)	The free end of the cable on the integral cable	
		version of the apparatus must be terminated in	
South African Approval	Certificate No. MASC MS/16-0229X	an appropriately certified dust-proof enclosure.	
	Group I and II (As Baseefa/ATEX)	The unit has no serviceable parts.	

How To Order

