HS-420I/M Intrinsically Safe Accelerometer

2.

4-20mA velocity output via M12 Connector

Key Features

- · Intrinsically Safe with European, USA 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

Technical Performance

Mounted Base Resonance	9 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			

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











CE



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Connection Details



HS-420I/M Intrinsically Safe Accelerometer

4-20mA velocity output via M12 Connector

Intrinsically Safe Require	ments		
Maximum Cable Length nominal 100 metres		US/Canada Approvals	Certificate No. USTC/15/FAI/01350
, i i i i i i i i i i i i i i i i i i i	see attached system drawings	Class I, II, III, Division 1, 2, G	roups 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, I	IIC, T80°C, IP65, Da, -40°C to +60°C
	Baseefa08ATEX0086X		
	ll 1GD	Barrier	1 x Pepperl + Fuchs Galvanic Isolator
	Ex ia IIC T6 Ga	KF	D2-STC4-Ex1, which has superseded
	Ex ia IIIC T80°C IP65 Da	KFI	D2-CR-Ex1.30300 (BAS00ATEX7164)
	🐵 I M1		see attached system drawings
	Ex ia I Ma		
$(-40^{\circ}C \le Ta \le +60^{\circ}C)$		1 x MTL Zener I	Barrier MTL7787+ (BAS01ATEX7217)
			or Pepperl + Fuchs Zener Barrier
Accelerometer System Certificate Baseefa08Y0087		Z787 (BAS01ATEX7005) or any other barrier that	
	Ex ia IIC T6 (-40°C \leq Ta \leq +60°C)	С	onforms to system drawings attached
	*On request - consult Sales Office		
		System Connections for Zener Barrier	see attached system drawings
Terminal Parameters	Ui = 28V, Ii = 115mA, Pi = 0.65W Group II		
	Ui = 16.5V Pi = 0.65W	System Connections for Galvanic Isolato	r see attached system drawings
	or Ui = 28V li = 115mA Pi = 0.65W Group I		
500) (1		Terminal Parameters	Ui = Vmax = 28V
500V Isolation	Units Will Pass A 500V Isolation Test		li = Imax = 115mA
Cartific d Tarra anatura Danas			Pi = 0.65W
Certified Temperature Range	Ex ia IIC T6 Ga (-40°C ≤ Ta ≤ +60°C) (Gas)	Notes: Special co	
Ex la IIIC	$T80^{\circ}C$ IP65 Da (-40°C \leq Ta \leq +60°C) (Dust)	000000000	nditions of safe use for Group II dust.
	Ex ia I Ma ($-40^{\circ}C \le Ta \le +60^{\circ}C$) (Mining)		end of the cable on the integral cable
South African Approval	Certificate No. MASC MS/16-0229X		f the apparatus must be terminated in
		an approp	priately certified dust-proof enclosure.
	Group I and II (As Baseefa/ATEX)		The unit has no serviceable parts.

How To Order





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We reserve the right to alter the specification of this product without prior notice $$\mathsf{TS064U.7}$$