

HS-170IS Premium Intrinsically Safe Accelerometer

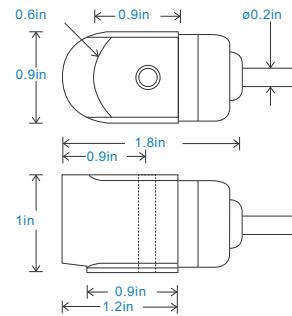
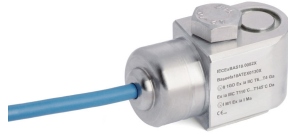
AC acceleration output via Flame Retardant Cable

Key Features

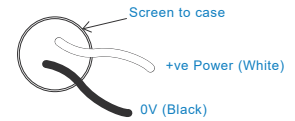
- Intrinsically Safe with European, USA, Indian and Australian approvals
- Compact design
- Side entry for easy access
- Premium design

Industries

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



Connection Details



Technical Performance

Mounted Base Resonance	see 'How To Order' table (nominal)
Sensitivity	see: 'How To Order' table $\pm 10\%$ Nominal 80Hz at 72°F
Frequency Response	120cpm (2Hz) to 840kcpm (14kHz) $\pm 5\%$ 90cpm (1.5Hz) to 960kcpm (16kHz) $\pm 10\%$ 48cpm (0.8Hz) to 1,140kcpm (19kHz) $\pm 3\text{dB}$
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Mounting Torque	5.9ft. lbs
Mounting Bolt Provided	see: 'How To Order' table x 1.2in long
Weight	4.7 oz. (nominal) body only
Maximum Cable Length	See certificate
Standard Cable Length	16 ft.
Screened Cable	Flame Retardant - length to be specified with order
Mounting Threads	see: 'How To Order' table

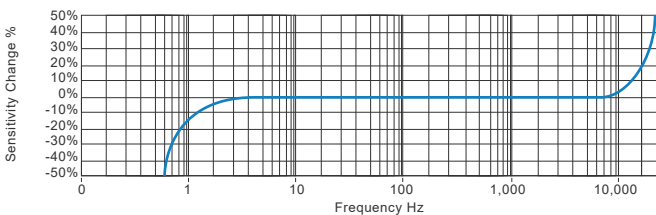
Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10 - 12 Volts DC
Settling Time	1 second
Output Impedance	200 Ohms max.
Case Isolation	$> 10^8$ Ohms at 500 Volts

Environmental

Operating Temperature Range	see: attached certification details
Sealing	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

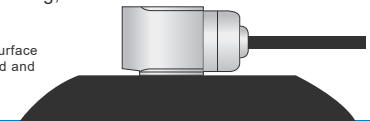
Typical Frequency Response (at 100mV/g)



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.)



Certificates



This product is certified in accordance with
 UL 60079-0, 6th Ed. Rev. July 26, 2013
 UL 60079-11, 6th Ed. Rev. September 6, 2013
 CAN/CSA C22.2 No. 60079-0:15 Rev. October 2015
 CAN/CSA C22.2 No. 60079-11:14
 UL 913, 8th Ed. Rev. October 16, 2015



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

TS917U.7



AC acceleration output via Flame Retardant Cable

Intrinsically Safe Requirements

Sensor Maximum Cable Length		Up to 92 metres	Certified Temperature Range	Ex ia IIC T6 Ga (-55°C ≤ Ta ≤ +57°C) (Gas) Ex ia IIC T4 Ga (-55°C ≤ Ta ≤ +103°C) (Gas)
Certificate details: Group I	IECEX 18.0082X		Ex ia IIIC T110°C Da (-55°C ≤ Ta ≤ +57°C) (Dust)	
	Baseefa18ATEX0130X		Ex ia IIIC T135°C Da (-55°C ≤ Ta ≤ +70°C) (Dust)	
	ⓈI M 1		Ex ia IIIC T145°C Da (-55°C ≤ Ta ≤ +92°C) (Dust)	
	Ex ia I Ma		Ex ia I Ma (-55°C ≤ Ta ≤ +103°C) (Mining)	
Certificate details: Group II and III	IECEX 18.0082X		Australian Approval Group I	IECEX ExTC 18.0032X
	Baseefa18ATEX0130X			Ex ia I Ma
	ⓈII 1GD		(-55°C ≤ Ta ≤ +104°C)	
	Ex ia IIC T6..T4 Ga			
	Ex ia IIIC T110°C..T145°C Da		US/Canada Approvals	Certificate No. SGSNA/19/BAS/00005 CI I, II, III, Div 1, 2 Gr A-G T*
Terminal Parameters 10m of cable	Ui = 28V, li = 93mA, Pi = 0.65W		CI I Zn 0 AEx ia IIC T6...T4 Ga	
	Ci = 5.0nF		CI II Zn 20 AEx ia IIIC T110°C...T145°C Da	
	Li= 7.2μH		CI II Zn 20 AEx ia IIIB T110°C...T145°C Da	
			Ex ia IIC T6...T4 Ga	
Terminal Parameters 92m of cable	Ui = 28V, li = 93mA, Pi = 0.65W		Ex ia IIIC T110°C...T145°C	
	Ci = 35.9nF			
	Li= 66μH		Control Drawing	M06-083-A Overbraided Cable
500V Isolation	Units Will Pass A 500V Isolation Test		M06-084-A PUR Cable	
			M06-085-A Silicone Cable	
			M06-086-A FR PUR Cable	
			M06-087-A Various Cables (HS-150IT Only)	
Standards Applied to Product	EN IEC 60079-0:2018 EN 60079-11:2012			
			Barrier	1 x Pepperl + Fuchs Galvanic Isolator
	IEC 60079-0 Edition 7 2017		KFD2-VR4-Ex1.26 (BAS02ATEX7206)	
	IEC 60079-11 Edition 6 2011		1 x MTL Zener Barrier MTL7728+ (BAS01ATEX7217)	
			or Pepperl + Fuchs Zener Barrier	
			Z728 (BAS01ATEX7005) or any other barrier that conforms with the terminal parameters	

Special conditions of use: When a sensor is supplied with integral cable, this must be terminated in an enclosure providing at least degree of protection IP20.

Note: If the equipment is to be used in unusual environments or aggressive substances are likely to be encountered, contact the manufacturer to discuss suitability.

How To Order

