

HS-170IS Premium Intrinsically Safe Accelerometer

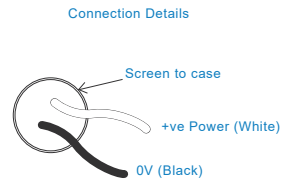
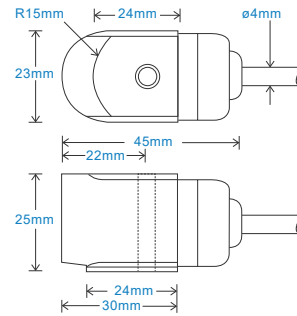
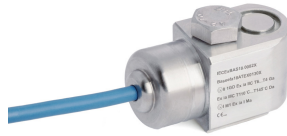
AC acceleration output via Flame Retardant Cable

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



Technical Performance

Mounted Base Resonance	see 'How To Order' table (nominal)
Sensitivity	see: 'How To Order' table $\pm 10\%$ Nominal 80Hz at 22°C
Frequency Response	2Hz (120cpm) to 14kHz (840kcpm) $\pm 5\%$ 1.5Hz (90cpm) to 16kHz (960kcpm) $\pm 10\%$ 0.8Hz (48cpm) to 19kHz (1,140kcpm) $\pm 3\text{dB}$
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	8Nm
Mounting Bolt Provided	see: 'How To Order' table x 30mm long
Weight	135gms (nominal) body only
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Flame Retardant - length to be specified with order
Mounting Threads	see: 'How To Order' table

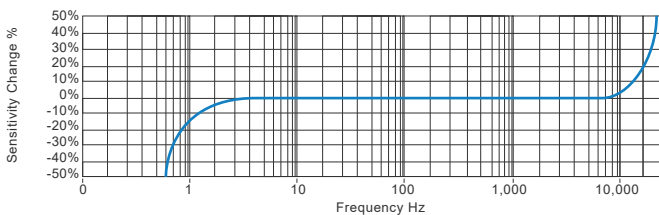
Electrical

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

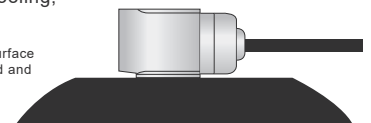
Typical Frequency Response (at 100mV/g)



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

TS917.6



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)
	Ex 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 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, Ii = 93mA, Pi = 0.65W		CI I Zn 0 AEx ia IIIC T6...T4 Ga
	Ci = 5.0nF		CI II Zn 20 AEx ia IIIC T110°C...T145°C Da
	Li = 7.2uH		CI II Zn 20 AEx ia IIIB T110°C...T145°C Da

Terminal Parameters 92m of cable	Ui = 28V, li = 93mA, Pi = 0.65W Ci = 35.9nF Li= 66µH	Control Drawing	Ex ia IIC T110°C...T145°C
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500V Isolation	Units Will Pass A 500V Isolation Test	M06-085-A Silicone Cable
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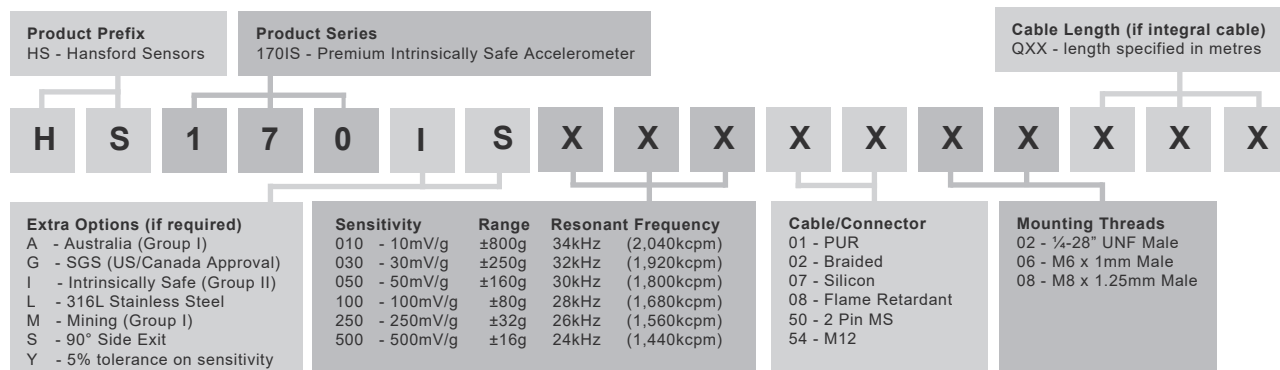
Standards Applied to Product	EN IEC 60079-0:2018 EN 60079-11:2012	M06-087-A Various Cables (HS-150IT Only)
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	Barrier	1 x Pepperl + Fuchs Galvanic Isolator
IEC 60079-0 Edition 7 2017		KFD2-VR4-Ex1.26 (BAS02ATEX7206)
IEC 60079-11 Edition 6 2011		1 x MTL 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



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