

HS-170IS Premium Intrinsically Safe Accelerometer

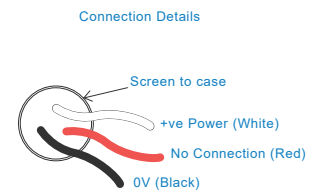
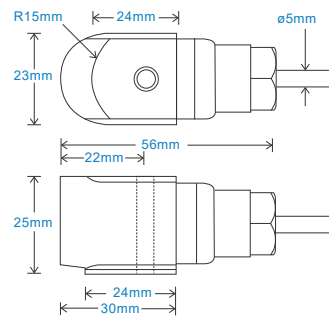
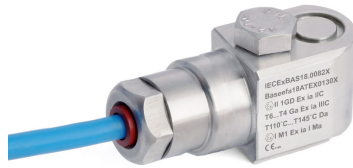
AC acceleration output via Silicon Cable

Key Features

- Intrinsically Safe with European, USA, Indian and Australian approvals
- Premium design
- Waterproof
- Compact design

Industries

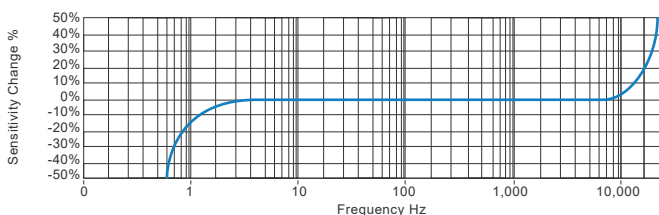
Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$ Nominal 80Hz at 22°C	Sensing Element/Construction	PZT/Shear
Frequency Response	2Hz (120cpm) to 14kHz (840kcpm) $\pm 5\%$ 1.5Hz (90cpm) to 16kHz (960kcpm) $\pm 10\%$ 0.8Hz (48cpm) to 19kHz (1,140kcpm) $\pm 3\text{dB}$	Mounting Torque	8Nm
Isolation	Base isolated	Mounting Bolt Provided	see: 'How To Order' table x 30mm long
Range	see: 'How To Order' table	Weight	135gms (nominal) body only
Transverse Sensitivity	Less than 5%	Maximum Cable Length	See certificate
		Standard Cable Length	5 metres
		Screened Cable	Silicon - length to be specified with order
		Mounting Threads	see: 'How To Order' table
		Submersible Depth	100 metres max (10 bar)

Electrical		Environmental	
Electrical Noise	0.1mg max	Operating Temperature Range	see: attached certification details
Current Range	0.5mA to 8mA	Sealing	IP68
Bias Voltage	10 - 12 Volts DC	Maximum Shock	5000g
Settling Time	1 second	EMC	EN61326-1:2013
Output Impedance	200 Ohms max.		
Case Isolation	$>10^8$ Ohms at 500 Volts		

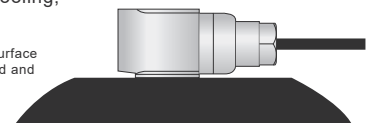
Typical Frequency Response (at 100mV/g)



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.)



Certifications



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

TS919.6



AC acceleration output via Silicon 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
	Ex II 1GD		(-55°C ≤ Ta ≤ +104°C)

	Ex ia IIIC T110°C..T145°C Da	US/Canada Approvals	Certificate No. SGSNA/19/BAS/000005
			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 IIC 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	$U_i = 28V$, $I_i = 93mA$, $P_i = 0.65W$ $C_i = 35.9nF$ $L_i = 66\mu H$	Ex ia IIC T110°C...T145°C M06-083-A Overbraided Cable
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500V Isolation	Units Will Pass A 500V Isolation Test	M06-085-A Silicone Cable
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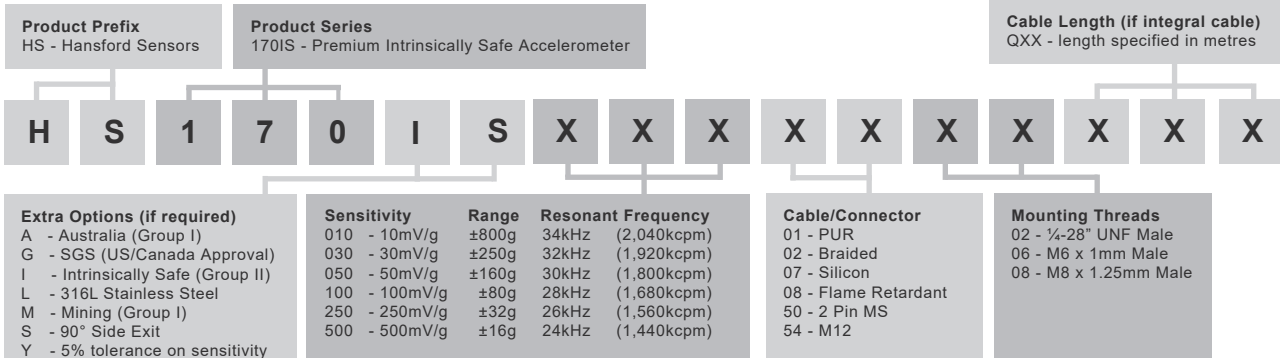
Standards Applied to Product	EN IEC 60079-0:2018 EN 60079-11:2012	M06-087-A Various Cables (HS-150IT Only)
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	Barrier	1 x Pepperl + Fuchs Galvanic Isolator
IEC 60079-0 Edition 7 2017		KFD2-VR4-Ex1.26 (BAS02ATEX7206)
IEC 60079-11 Edition 6 2011		1 x MTL 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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