

HS-150IST Premium Intrinsically Safe Accelerometer

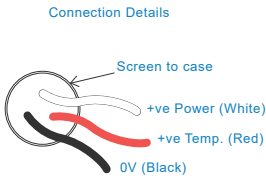
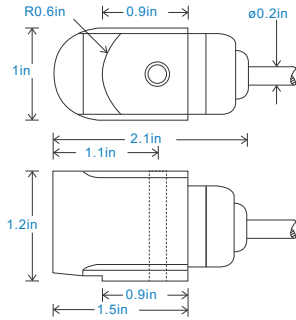
AC acceleration and temperature output via Braided Cable

Key Features

- Intrinsically Safe with European, US, Indian and Australian approvals
- Side entry for easy access
- For use with data collector
- Temperature output

Industries

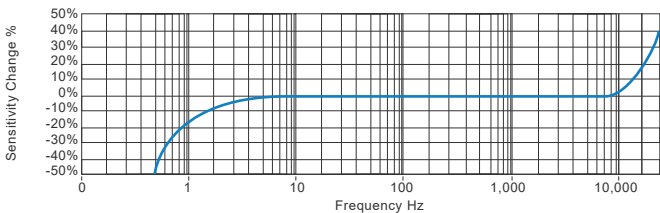
Building services, Pulp and Paper, Mining, Metals, Utilities, Automotive, Water, Pharmaceutical



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 72°F	Sensing Element/Construction	PZT/Shear
Frequency Response	120cpm (2Hz) to 600kcpm (10kHz) $\pm 5\%$ 90cpm (1.5Hz) to 720kcpm (12kHz) $\pm 10\%$ 48cpm (0.8Hz) to 900kcpm (15kHz) $\pm 3\text{dB}$	Mounting Torque	5.9ft. lbs
Isolation	Base isolated	Mounting Bolt provided	see: 'How To Order' table x 1.4in long
Range	see: 'How To Order' table	Weight	7.2 oz. (nominal) body only
Temperature Output	10 mV/°C standard 212°F - Option 266°F	Maximum Cable Length	See certificate
Transverse Sensitivity	Less than 5%	Standard Cable Length	16 ft.
		Screened Cable	Braided - length to be specified with order
		Mounting Threads	see: 'How To Order' table

Electrical		Environmental	
Excitation Voltage:	18-30Volts DC	Operating Temperature Range	see: attached certification details
Electrical Noise	0.1mg max	Sealing	IP65
Current Range	0.5mA to 8mA	Maximum Shock	5000g
Bias Voltage	10 - 12 Volts DC	EMC	EN61326-1:2013
Settling Time	2 seconds		
Output Impedance	200 Ohms max.		
Case Isolation	$>10^8$ Ohms at 500 Volts		

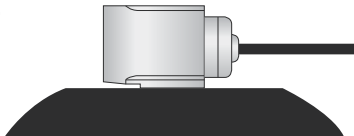
Typical Frequency Response (at 100mV/g)



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

TS1237U.3



AC acceleration and temperature output via Braided Cable

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	IECEEx 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	IECEEx 18.0082X		Australian Approval Group I	IECEEx 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* CI I Zn 0 AEx ia IIC T6...T4 Ga CI II Zn 20 AEx ia IIIC T110°C...T145°C Da CI II Zn 20 AEx ia IIIB T110°C...T145°C Da Ex ia IIC T6...T4 Ga Ex ia IIIC T110°C...T145°C
Terminal Parameters 10m of cable	Ui = 28V, li = 93mA, Pi = 0.65W Ci = 5.0nF Li= 7.2µH			
Terminal Parameters 92m of cable	Ui = 28V, li = 93mA, Pi = 0.65W Ci = 35.9nF Li= 66µH		Control Drawing	M06-083-A Overbraided Cable M06-084-A PUR Cable M06-085-A Silicone Cable M06-086-A FR PUR Cable
500V Isolation	Units Will Pass A 500V Isolation Test			
Standards Applied to Product	EN IEC 60079-0:2018 EN 60079-11:2012		M06-087-A Various Cables (HS-150IT Only)	
			Barrier	1 x Pepperl + Fuchs Galvanic Isolator KFD2-VR4-Ex1.26 (BAS02ATEX7206) 1 x MTL Zener Barrier MTL7728+ (BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Z728 (BAS01ATEX7005) or any other barrier that conforms with the terminal parameters
Temperature	1 x Pepperl + Fuchs Galvanic Isolator KFD2-VR-Ex1.18 (BAS01ATEX7262) 1 x MTL Zener Barrier MTL7764+ac(BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Z764 (BAS01ATEX7005) or any other barrier that conforms with the terminal parameters			

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.

Product Prefix HS - Hansford Sensors		Product Series 150IS - Premium Intrinsically Safe Accelerometer					Cable Length (if integral cable) UXX - length specified in feet																			
H	S	1	5	0	I	S	T	X	X	X	X	X	X	X	X	X										
Extra Options (if required) A - Australia (Group I) I - Intrinsically Safe (Group II) L - 316L Stainless Steel M - Mining (Group I) S - 90° Side Exit T - Temperature Output Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g					Range ±800g ±250g ±160g ±80g ±32g ±16g					Resonant Frequency 34kHz (2,040kcps) 33kHz (1,980kcps) 32kHz (1,920kcps) 30kHz (1,800kcps) 28kHz (1,680kcps) 26kHz (1,560kcps)					Cable/Connector 01 - PUR 03 - Braided 07 - Silicon 52 - 3 Pin MS 54 - M12					Mounting Threads 02 - ¼-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male				

