

HS-105I ATEX High Temp. Accelerometer

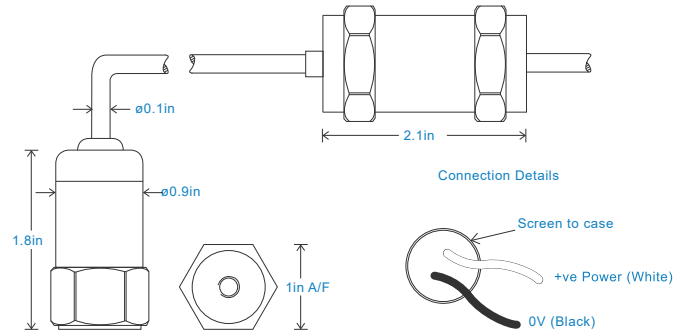
AC output via Low Noise Cable

Key Features

- Intrinsically safe with European and Indian approval
- Includes external charge amplifier
- Optional temperature ranges
- Low noise cable

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 72°F
Frequency Response	120cpm (2Hz) to 600kcpm (10kHz) $\pm 5\%$ 90cpm (1.5Hz) to 720kcpm (12kHz) $\pm 10\%$ 48cpm (0.8Hz) to 900kcpm (15kHz) $\pm 3dB$
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	5.9ft. lbs
Weight	4.4 oz. (nominal)
Maximum Cable Length	3,280 ft.
Cable	see: 'How To Order' table - (65 ft. max between sensor and charge amplifier)
Mounting Threads	see: 'How To Order' table

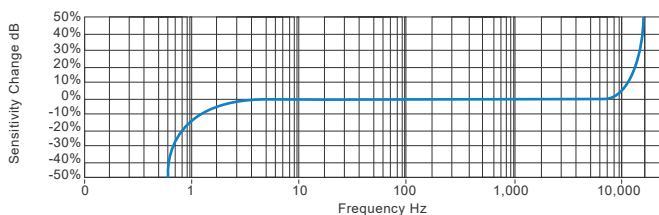
Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10 - 12 Volts DC
Settling Time	2 seconds
Output Impedance	200 Ohms max.
Case Isolation	$>10^8$ Ohms at 500 Volts

Environmental

Operating Temperature Range	Ex ia IIA T2 ($-4^\circ F \leq T_a \leq +480^\circ F$) Accelerometer Ex ia IIC T4 ($-4^\circ F \leq T_a \leq +176^\circ F$) Charge Amplifier
Sealing	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

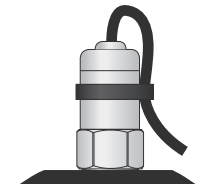
Typical Frequency Response (at 100mV/g)



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



www.hansfordsensors.com
sales@hansfordsensors.com

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TS092U.7



AC output via Low Noise Cable

Maximum Cable Length	328 ft. max.	500V Isolation	Units Will Pass A 500V Isolation Test
Certificate details: Group II Accelerometer	IECExBAS09.0157 Baseefa07ATEX0336 ⓈII 1G Ex ia IIA T2 Ga (-4°F ≤ Ta ≤ +480°F)	Barrier	1 x Pepperl + Fuchs Galvanic Isolator KFD2-VR4-Ex1.26 (BAS02ATEX7206) or equivalent
			1 x MTL Zener Barrier MTL7728+ (BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Z728 (BAS01ATEX7005) or equivalent
Certificate details: Group II Charge Amplifier	IECExBAS09.0157 Baseefa07ATEX0336 ⓈII 1G Ex ia IIA T4 Ga (-4°F ≤ Ta ≤ +176°F)	Notes:	Special conditions of safe use for Group II. The free end of the cable on the integral cable version of the apparatus must be terminated in an appropriate enclosure certified flameproof. The unit has no serviceable parts.
Terminal Parameters	Ui = 28V, Ii = 93mA, Pi = 0.65W, Ci = 54 nF, Li = 60μH		

Product Prefix		Product Series					Cable Length (if integral cable)									
HS - Hansford Sensors		105 - Industrial Vibration Sensor					UXX/XX - length before/after charge amp, specified in feet									
H	S	1	0	5	I	X	X	X	X	X	X	X	X	X	X	X
Extra Options (if required) I - Intrinsically Safe S - 90° Side Exit Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g					Range ±800g ±250g ±160g ±80g		Resonant Frequency 1,680kcpm (28kHz) 1,560kcpm (26kHz) 1,440kcpm (24kHz) 1,320kcpm (22kHz)			Cable 04 - Low Noise (300°F) 05 - Low Noise (480°F)		Mounting Threads 01 - ¼-28" UNF Female 02 - ¼-28" UNF Male 05 - Quick Fit Female 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male 10 - M10 x 1.5mm Male		



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