

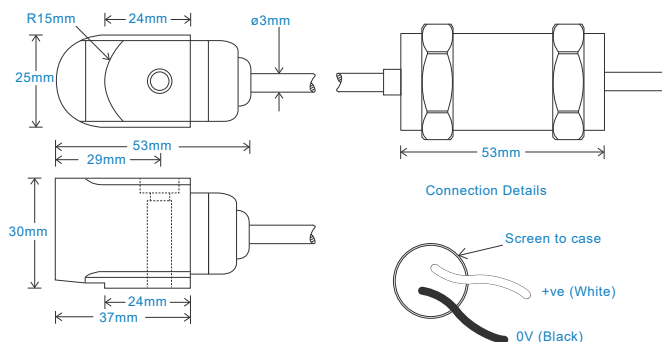
AC output via Low Noise Cable

Key Features

- Includes external charge amplifier
- Optional temperature ranges
- Low noise cable

Industries

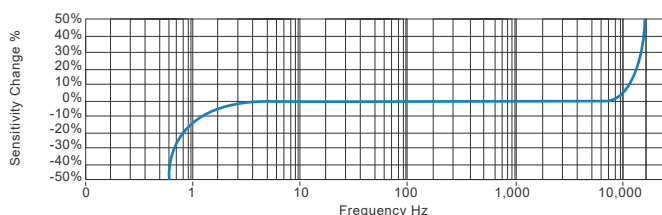
Building services, Pulp and Paper,
Mining, Metals, Utilities, Automotive,
Water, Pharmaceutical



Technical Performance		Mechanical	
Mounted Base Resonance	see 'How To Order' table (nominal)	Case Material	Stainless Steel
Sensitivity	see: 'How To Order' table $\pm 10\%$	Sensing Element/Construction	PZT/Compression
	Nominal 80Hz at 22°C	Mounting Torque	8Nm
Frequency Response	2Hz (120cpm) to 10kHz (600kcpm) $\pm 5\%$	Mounting Bolt Provided	see: 'How To Order' table x 35mm long
	1.5Hz (90cpm) to 12kHz (720kcpm) $\pm 10\%$	Weight	185gms (nominal)
	0.8Hz (48cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$	Maximum Cable Length	1000 metres
Isolation	Base isolated	Cable	see: 'How To Order' table - (20 metres
Range	see: 'How To Order' table		max between sensor and charge amplifier)
Transverse Sensitivity	Less than 5%	Mounting Threads	see: 'How To Order' table

Electrical		Environmental	
Electrical Noise	0.1mg max	Operating Temperature Range	-55°C to see 'How To Order' table for max
Current Range	0.5mA to 8mA	Sealing	IP67
Bias Voltage	10 - 12 Volts DC	Maximum Shock	5000g
Settling Time	2 seconds	EMC	EN61326-1:2013
Output Impedance	200 Ohms max.		
Case Isolation	>10 ⁸ Ohms at 500 Volts		

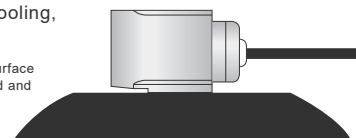
Typical Frequency Response (at 100mV/g)



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.)



How To Order

Product Prefix
HS - Hansford Sensors

Product Series
105 - Industrial Vibration Sensor

Cable Length (if integral cable)
QXX/XX - length before/after charge amp, specified in metres

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
250 - 250mV/g
500 - 500mV/g

Range
±800g
±250g
±160g
±80g
±32g
±16g

Resonant Frequency
28kHz (1,680kcpm)
26kHz (1,560kcpm)
24kHz (1,440kcpm)
22kHz (1,320kcpm)
20kHz (1,200kcpm)
18kHz (1,080kcpm)

Cable
04 - Low Noise (150°C)
05 - Low Noise (250°C)

Connector
02 - Braided
50 - 2 Pin MS

*The above connectors can't be used with Intrinsically Safe

Mounting Threads
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

HS-105IS ATEX High Temp. Accelerometer

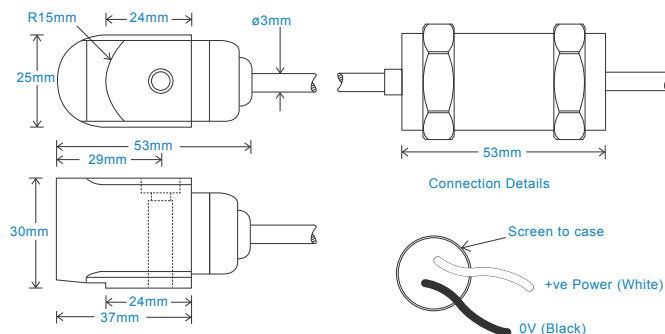
AC output via Low Noise Cable

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 22°C
Frequency Response	2Hz (120cpm) to 10kHz (600kcpm) $\pm 5\%$ 1.5Hz (90cpm) to 12kHz (720kcpm) $\pm 10\%$ 0.8Hz (48cpm) to 15kHz (900kcpm) $\pm 3\text{dB}$
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	8Nm
Mounting Bolt Provided	see: 'How To Order' table x 35mm long
Weight	125gms (nominal)
Maximum Cable Length	1000 metres
Cable	see: 'How To Order' table - (20 metres max between sensor and charge amplifier)
Mounting Threads	see: 'How To Order' table

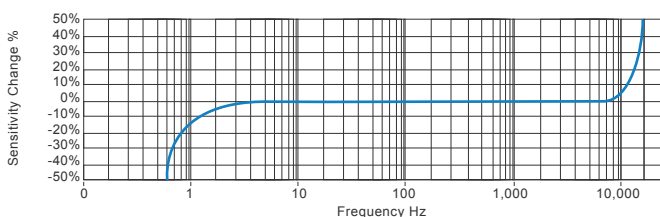
Electrical

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 IIC T2 (-20°C \leq Ta \leq +250°C) Accelerometer Ex ia IIC T4 (-20°C \leq Ta \leq +80°C) Charge Amplifier
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

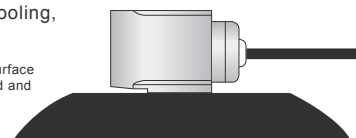
Typical Frequency Response (at 100mV/g)



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.)



Certifications



www.hansfordsensors.com
sales@hansfordsensors.com

We reserve the right to alter the specification of this product without prior notice
TS231.7



HS-105IS ATEX High Temp. Accelerometer

AC output via Low Noise Cable

Intrinsically Safe Requirements

Maximum Cable Length	100 metres 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 (-20°C ≤ Ta ≤ +250°C)	Barrier	1 x Pepperl + Fuchs Galvanic Isolator KFD2-VR4-Ex1.26 (BAS02ATEX7206) or equivalent
Certificate details: Group II Charge Amplifier	IECExBAS09.0157 Baseefa07ATEX0336 Ⓔ II 1G Ex ia IIA T4 Ga (-20°C ≤ Ta ≤ +80°C)	Notes:	1 x MTL Zener Barrier MTL7728+ (BAS01ATEX7217) or Pepperl + Fuchs Zener Barrier Z728 (BAS01ATEX7005) or equivalent 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		

How To Order

