

# HS-105IS ATEX High Temp. Accelerometer

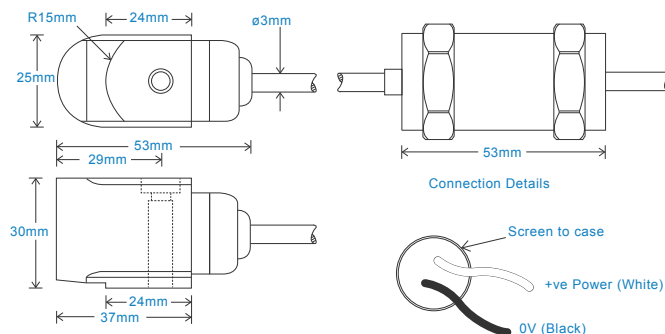
## AC output via Low Noise Cable

### 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

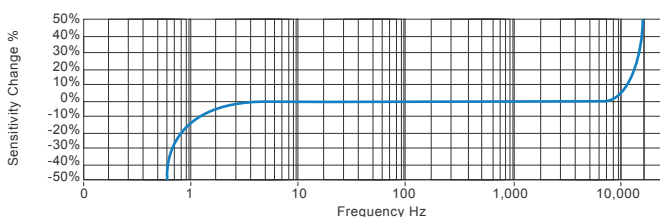
### Electrical

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	IP65
Maximum Shock	5000g
EMC	EN61326-1:2013

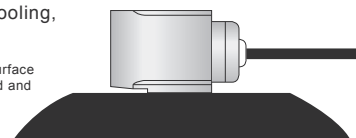
### Typical Frequency Response (at 100mV/g)



### 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.)



### Certifications



[www.hansfordsensors.com](http://www.hansfordsensors.com)  
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We reserve the right to alter the specification of this product without prior notice  
TS231.9



# 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 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 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

