

# HS-004IS ATEX Low Power Accelerometer Capsule

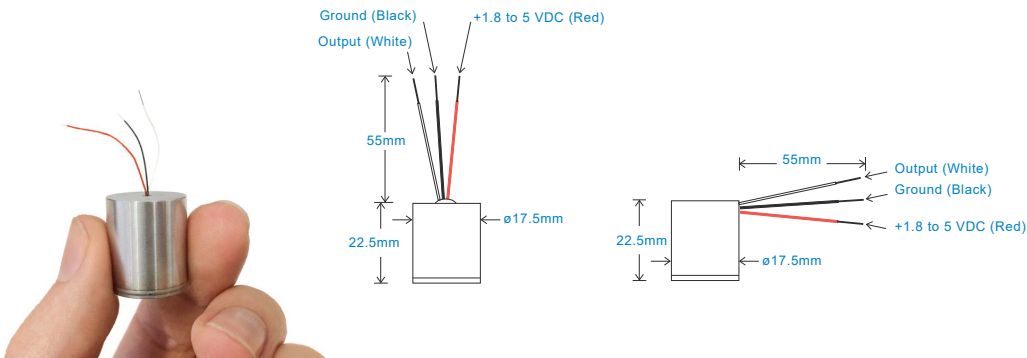
AC acceleration output

### Key Features

- OEM Capsule
- Low voltage
- Ultra low power consumption

### Industries

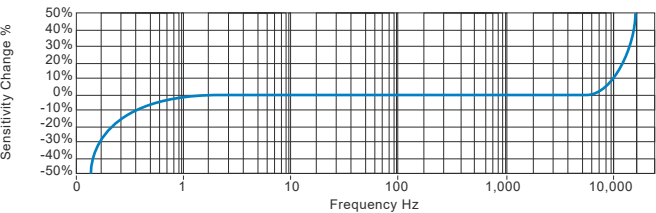
Building services, Pulp and Paper,  
Mining, Metals, Utilities, Automotive,  
Water, Pharmaceutical



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	0.3Hz (18cpm) to 15kHz (900kcpm) $\pm 3$ dB	Weight	18gms (nominal)
Isolation	Base isolated		
Range	see: 'How To Order' table @ 5V power		
Transverse Sensitivity	Less than 5%		
Broadband Resolution	<500 $\mu$ g		
Amplitude Linearity	$\pm 1\%$		

Electrical		Environmental	
Electrical Noise	< 500 $\mu$ g	Operating Temperature Range	-40 to 120°C
Power Requirements	see: 'How To Order' table	Sealing	IP55
Current Consumption	100 $\mu$ A nominal at 5V supply (60 $\mu$ A at 1.8V)	Maximum Shock	5000g
Bias Voltage	50% of supply voltage	EMC	EN61326-1:2013
Settling Time	1 second	Electromagnetic Sensitivity	150 $\mu$ g/gauss
Output Impedance	100 Ohms max.		
Case Isolation	>108 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

### Certificates



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## Intrinsically Safe Requirements

Certificate details: Group II	IECEx BAS 18.0072U Baseefa18ATEX0110U Ex ia IIC T6...T1 G	Standards Applied to Product	EN IEC 60079-0:2018 EN 60079-11:2012
Terminal Parameters	Ui = 5.2V, Ii = 367mA, Pi = 305mW Ci = 12pF Li = 0		IEC 60079-0 Edition 7 2017 IEC 60079-11 Edition 6 2011

Certified temperature range:

	T6	T5	T4	T3	T2	T1
Mounted in free space (11K surface temperature rise)	69°C	84°C	110°C	110°C	110°C	110°C
Mounted in enclosed space with approximately 61cm3 of free space around the capsule (16.5K surface temperature rise)	63.5°C	78.5°C	110°C	110°C	110°C	110°C
Mounted in enclosed space with approximately 40cm3 of free space around the capsule (20K surface temperature rise)	60°C	75°C	110°C	110°C	110°C	110°C

Schedule of Limitations:

- The piezo-electric crystal within the assembly is internally protected by adequately rated, triplicated zener diodes and so no further consideration is required.
- The HS-004I Capsule shall be completely encased within an equipment enclosure providing a degree of ingress protection of at least IP20.

## How To Order

