

# HS-104 Low Power Accelerometer

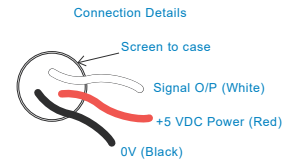
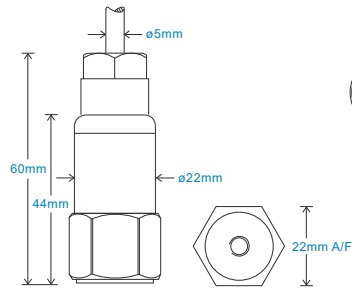
## AC acceleration output via Silicon Cable

### Key Features

- Low voltage
- Ultra low power consumption
- Customisable features

### 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	0.3Hz (18cpm) to 10kHz (600kcpm) $\pm 10\%$
Isolation	Base isolated
Range	see: 'How To Order' table @ 5V power
Transverse Sensitivity	Less than 5%
Amplitude Linearity	$\pm 1\%$

### Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Mounting Torque	8Nm
Weight	125gms (nominal)
Mounting Threads	see: 'How To Order' table
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Silicon - length to be specified with order
Submersible Depth	100 metres max (10 bar)

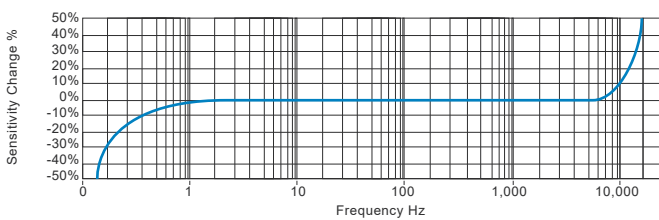
### Electrical

Electrical Noise	< 500 $\mu$ g
Power Requirements	5V nominal (other voltages 1.8 to 24V on request)
Current Consumption	100 $\mu$ A nominal at 5V supply (60 $\mu$ A at 1.8V)
Bias Voltage	50% of supply voltage
Settling Time	1 second
Output Impedance	100 Ohms max.
Case Isolation	>10 <sup>9</sup> Ohms at 500 Volts

### Environmental

Operating Temperature Range	-50 to 125°C
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

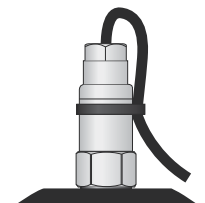
### Typical Frequency Response (at 100mV/g)



### 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.)



### How To Order

<b>Product Prefix</b> HS - Hansford Sensors	<b>Product Series</b> 104 - Low Power Vibration Sensor	<b>Cable Length (if integral cable)</b> QXX - length specified in metres												
<b>H</b>	<b>S</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Extra Options (if required)</b> F - Filtered L - 316L Stainless Steel RT - Temperature Output PT100 S - 90° Side Exit T - Temperature Output	<b>Sensitivity</b> 010 - 10mV/g 025 - 25mV/g 030 - 30mV/g 050 - 50mV/g 100 - 100mV/g 250 - 250mV/g 500 - 500mV/g	<b>Range</b> $\pm 200$ g $\pm 80$ g $\pm 66$ g $\pm 40$ g $\pm 20$ g $\pm 8$ g $\pm 4$ g	<b>Resonant Frequency</b> 25kHz (1,500kcpm) 25kHz (1,500kcpm) 25kHz (1,500kcpm) 25kHz (1,500kcpm) 25kHz (1,500kcpm) 25kHz (1,500kcpm) 25kHz (1,500kcpm)	<b>Cable/Connector</b> 01 - PUR 03 - Braided 07 - Silicon 13 - Flame Retardant 52 - 3 Pin MS 54 - M12	<b>Mounting Threads</b> 01 - 1/4-28" UNF Female 02 - 1/4-28" 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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