

# HS-100ST Accelerometer

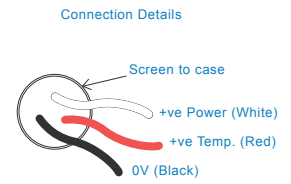
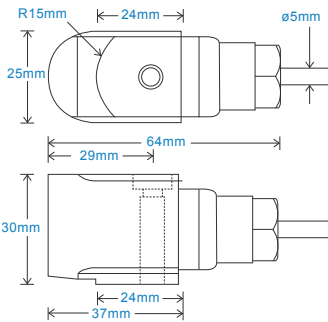
## AC acceleration and temperature output via Silicon Cable

### Key Features

- Temperature output
- Side entry for easy access
- Waterproof

### 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) $\pm 3dB$
Isolation	Base isolated
Range	see: 'How To Order' table
Temperature Output	10 mV/°C standard 100°C - Option 140°C
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 30mm long
Weight	185gms (nominal)
Maximum Cable Length	1000 metres
Standard Cable Length	5 metres
Screened Cable	Silicon - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	100 metres max. (10 bar)

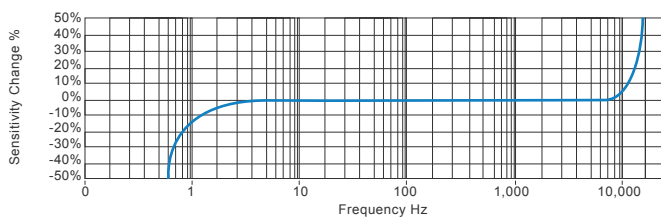
### Electrical

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	-50 to 140°C
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

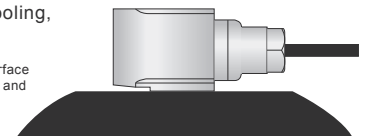
### Typical Frequency Response (at 100mV/g)



### 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> 100 - Industrial Vibration Sensor	<b>Cable Length (if integral cable)</b> QXX - length specified in metres
<b>H S 1 0 0 S T X X X X X X X X X X</b>		
<b>Extra Options (if required)</b> F - Filtered L - 316L Stainless Steel S - 90° Side Exit T - Temperature Output Y - 5% tolerance on sensitivity	<b>Sensitivity</b> 010 - 10mV/g $\pm 800g$ 030 - 30mV/g $\pm 250g$ 050 - 50mV/g $\pm 160g$ 100 - 100mV/g $\pm 80g$ 250 - 250mV/g $\pm 32g$ 500 - 500mV/g $\pm 16g$	<b>Range</b> $\pm 800g$ $\pm 250g$ $\pm 160g$ $\pm 80g$ $\pm 32g$ $\pm 16g$
<b>Resonant Frequency</b> 27kHz (1,620kcpm) 25kHz (1,500kcpm) 23kHz (1,380kcpm) 21kHz (1,260kcpm) 19kHz (1,140kcpm) 17kHz (1,020kcpm)	<b>Cable/Connector</b> 01 - PUR 03 - Braided 07 - Silicon 15 - Flame Retardant 52 - 3 Pin MS 54 - M12	<b>Mounting Threads</b> 02 - 1/4-28" UNF Male 06 - M6 x 1mm Male 08 - M8 x 1.25mm Male



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We reserve the right to alter the specification of this product without prior notice  
TS193.6

