

HS-180S Premium Accelerometer

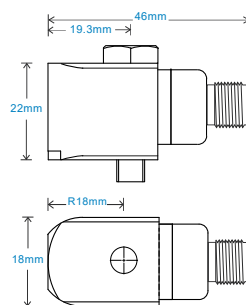
AC acceleration output via M12 Connector

Key Features

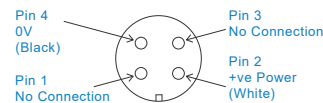
- Mini compact design
- Premium design
- Side entry for easy access

Industries

Automotive, Machine Tools, OEM



Connection Details



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 14kHz (840kcpm) $\pm 5\%$ 1.5Hz (90cpm) to 16kHz (960kcpm) $\pm 10\%$ 0.8Hz (48cpm) to 19kHz (1,140kcpm) $\pm 3\text{dB}$
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Mounting Torque	8 Nm
Mounting Bolt Provided	see: 'How To Order' table x 27mm long
Weight	83gms (nominal) body only
Screened cable assembly	HS-AC010 - straight
Connector	HS-AA043
Mounting Threads	see: 'How To Order' table

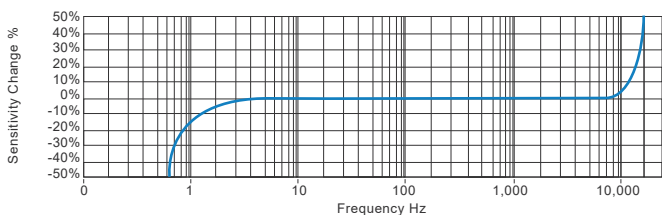
Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10 - 12 Volts DC
Settling Time	1 second
Output Impedance	200 Ohms max.
Case Isolation	$>10^8$ Ohms at 500 Volts

Environmental

Operating Temperature Range	-55 to 130°C
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

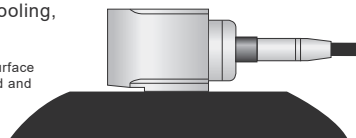
Typical Frequency Response (at 100mV/g)



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

Product Prefix HS - Hansford Sensors		Product Series 180 - Compact Premium Industrial Vibration Sensor										
H	S	1	8	0	S	X	X	X	X	X	X	X
Extra Options (if required) F - Filtered L - 316L Stainless Steel S - 90° Side Exit Y - 5% tolerance on sensitivity		Sensitivity 010 - 10mV/g 100 - 100mV/g		Range ±800g ±80g		Resonant Frequency 30kHz (1,800kcpm) 24kHz (1,440kcpm)		Cable/Connector 08 - Flame Retardant 50 - 2 Pin MS 54 - M12		Mounting Threads 02 - ¼-28" UNF Male 06 - M6 x 1mm Male		



www.hansfordsensors.com
sales@hansfordsensors.com

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

TS973.3



HS-180S Premium Accelerometer

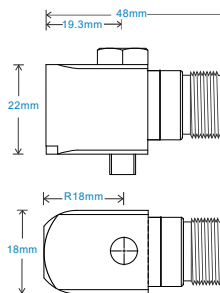
AC acceleration output via 2 Pin MS Connector

Key Features

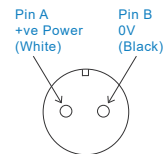
- Mini compact design
- Side entry for easy access
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Industries

Automotive, Machine Tools, OEM



Connection Details



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 14kHz (840kcpm) $\pm 5\%$ 1.5Hz (90cpm) to 16kHz (960kcpm) $\pm 10\%$ 0.8Hz (48cpm) to 19kHz (1,140kcpm) $\pm 3\text{dB}$
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Shear
Mounting Torque	8Nm
Mounting Bolt Provided	see: 'How To Order' table x 27mm long
Weight	83gms (nominal) body only
Screened cable assembly	see: www.hansfordsensor.com for options
Connector	HS-AA004-non booted HS-AA053 or HS-AA054-booted
Mounting Threads	see: 'How To Order' table

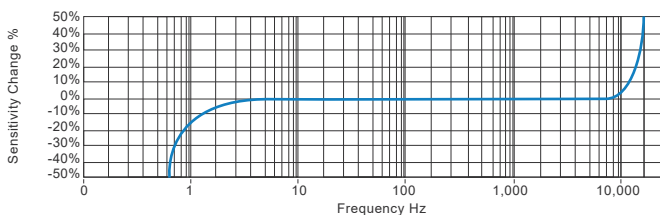
Electrical

Electrical Noise	0.1mg max
Current Range	0.5mA to 8mA
Bias Voltage	10 - 12 Volts DC
Settling Time	1 second
Output Impedance	200 Ohms max.
Case Isolation	$>10^8$ Ohms at 500 Volts

Environmental

Operating Temperature Range	-55 to 130°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

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How To Order

Product Prefix	Product Series										
HS - Hansford Sensors	180 - Compact Premium Industrial Vibration Sensor										
H	S	1	8	0	S	X	X	X	X	X	X
Extra Options (if required)		Sensitivity		Range		Resonant Frequency		Cable/Connector		Mounting Threads	
F - Filtered L - 316L Stainless Steel S - 90° Side Exit Y - 5% tolerance on sensitivity		010 - 10mV/g 100 - 100mV/g		$\pm 800\text{g}$ $\pm 80\text{g}$		30kHz (1,800kcpm) 24kHz (1,440kcpm)		08 - Flame Retardant 50 - 2 Pin MS 54 - M12		02 - 1/4-28" UNF Male 06 - M6 x 1mm Male	



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TS974.4

