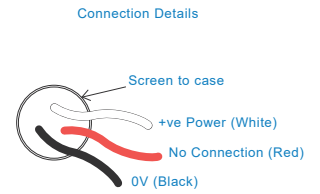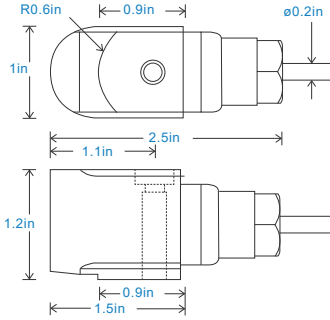# HS-160S Accelerometer
AC velocity output via Silicon Cable

Key Features
• Waterproof
• AC velocity output
• Side entry for easy access

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

Connection Details

Screen to case
+ve Power (White)
No Connection (Red)
0V (Black)

Dimensions: R0.6in, 0.9in, ø0.2in, 1in, 2.5in, 1.1in, 1.2in, 0.9in, 1.5in

Technical Performance

Mounted Base Resonance	see 'How To Order' table (nominal)
Sensitivity	see: 'How To Order' table ±10%
	Nominal 80Hz at 72°F
Frequency Response	180cpm (3Hz) to 270kcpm (4.5kHz) ± 10%
	120cpm (2Hz) to 360kcpm (6kHz) ± 3dB
Isolation	Base isolated
Range	see: 'How To Order' table
Transverse Sensitivity	Less than 5%

Mechanical

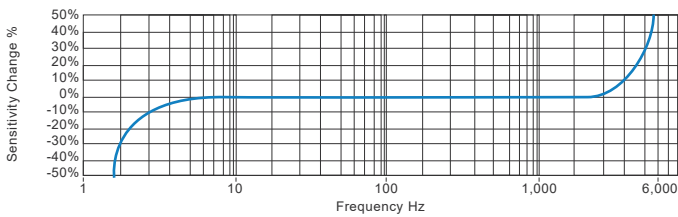|	
Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	5.9ft. lbs
Mounting Bolt Provided	see: 'How To Order' table x 1.2in long
Weight	6.5 oz. (nominal) body only
Maximum Cable Length	3,280 ft.
Standard Cable Length	16 ft.
Sheilded Cable	Silicon - length to be specified with order
Mounting Threads	see: 'How To Order' table
Submersible Depth	328 ft. max (10 bar)

Electrical

Excitation Voltage	18-30Volts DC
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	-58 to 284°F
Sealing	IP68
Maximum Shock	5000g
EMC	EN61326-1:2013

Typical Frequency Response

Y-axis: Sensitivity Change % (50%, 40%, 30%, 20%, 10%, 0%, -10%, -20%, -30%, -40%, -50%)
X-axis: Frequency Hz (1, 10, 100, 1,000, 6,000)

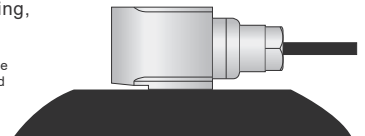## Applications
Fans, Motors, Pumps, Compressors, Centrifuges, Conveyors, Air Handlers, Gearboxes, Rolls, Dryers, Presses, Cooling, VAC, Spindles, Machine Tooling, Process Equipment

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
160 - Industrial Vibration Sensor

Cable Length (if integral cable)
UXX - length specified in feet

H	S	1	6	0	S	X	X	X	X	X	X	X	X	X	X

Extra Options (if required)
F - Filtered
L - 316L Stainless Steel
RT - Temperature Output PT100
S - 90° Side Exit
T - Temperature Output
Y - 5% tolerance on sensitivity

Sensitivity	Range (pk)	Resonant Frequency
004 - 100mV/in/s	40 IPS	1,320kcpm (22kHz)
025 - 625mV/in/s	10 IPS	1,320kcpm (22kHz)

(other sensitivities available on request)

Cable/Connector
01 - PUR
02 - Braided
07 - Silicon
08 - Flame Retardant
50 - 2 Pin MS
54 - M12

Mounting Threads
02 - ¼-28" UNF Male
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male

Hansford Sensors
Excellence in Vibration Monitoring

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TS135U.6