HS-420RT Accelerometer
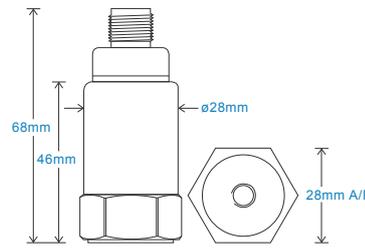## 4-20mA velocity and PT100 temperature output via M12 Connector

Key Features
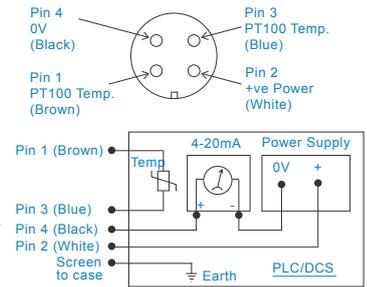• For use with PLC/DCS systems
• PT100 temperature output

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

Connection Details

Pin 4 0V (Black)
Pin 3 PT100 Temp. (Blue)
Pin 1 PT100 Temp. (Brown)
Pin 2 +ve Power (White)

Pin 1 (Brown) — Temp
Pin 3 (Blue)
Pin 4 (Black)
Pin 2 (White)
Screen to case
4-20mA
Power Supply 0V +
Earth
PLC/DCS

68mm
46mm
ø28mm
28mm A/F

Technical Performance

Mounted Base Resonance	5kHz min
Velocity Ranges	see: 'How To Order' table ±10%
	Nominal 80Hz at 22°C
Frequency Response	10Hz (600cpm) to 1kHz (60kcpm) ± 5% - ISO10816
Isolation	Base isolated
Range	50g peak
Temperature Output	PT100 (100 Ohms)
Transverse Sensitivity	Less than 5%

Mechanical

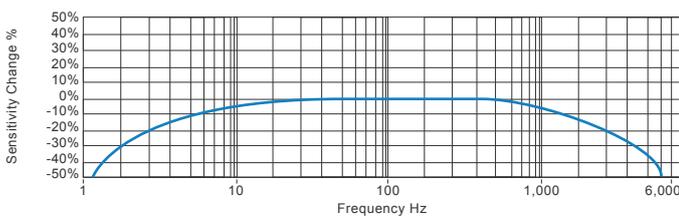|	
Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	8Nm
Weight	150gms (nominal)
Screened Cable Assembly	HS-AC010 - straight
	HS-AC011 - right angle
Mounting Threads	see: 'How To Order' table

Electrical

Current Output	4-20mA DC proportional to Velocity Range
Supply Voltage	15-30 Volts DC (for 4-20mA)
Settling Time	2 seconds
Output Impedance	Loop Resistance 600 Ohms max. at 24 Volts
Case Isolation	>10^8 Ohms at 500 Volts

Environmental

Operating Temperature Range	-25 to 90ºC
Sealing	IP67
Maximum Shock	5000g
EMC	EN61326-1:2013

Typical Frequency Response

Sensitivity Change %
50%, 40%, 30%, 20%, 10%, 0%, -10%, -20%, -30%, -40%, -50%
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
420 - Industrial Vibration Sensor

Cable Length (if integral cable)
QXX - length specified in metres

H	S	4	2	0	R	T	X	X	X	X	X	X	X	X	X	X

Extra Options (if required)
F - Filtered
I - Intrinsically Safe
L - 316L Stainless Steel
RT - Temperature Output PT100
S - 90° Side Exit
P   - Peak Range
PP - Peak to Peak Range

Velocity Range
(RMS unless specified)
010 - 0-10 mm/sec
020 - 0-20 mm/sec
025 - 0-25 mm/sec
050 - 0-50 mm/sec
100 - 0-100 mm/sec

Cable/Connector
01 - PUR
54 - M12

Mounting Threads
01 - ¼-28" UNF Female
02 - ¼-28" UNF Male
05 - Quick Fit Female
06 - M6 x 1mm Male
08 - M8 x 1.25mm Male
10 - M10 x 1.5mm Male

Hansford Sensors
Excellence in Vibration Monitoring

Safety Integrity Level SIL