

# HS-421 Series Vibration Sensor

M12 Connector, Dual Output - 4-20mA and AC



## Typical Applications

- Low cost online means of monitoring with the capability of interfacing direct into PLC, BMS or any 4-20mA input module.  
Proven use in vibration monitoring for offline applications using commercially available data collectors.
- **Protecting...**  
Fans, Motors, Pumps, Compressors, Centrifuges, Conveyers, Air Handlers, Gearboxes, Rolls, Dryers, Presses, Cooling, HVAC, Spindles, Machine Tooling, Process Equipment and many more.

## Technical Performance

Mounted Base Resonance	5 kHz min.
Velocity Ranges	0-10 to 0-100 mm/sec RMS (5 ranges)
Frequency Response	10 Hz to 1 kHz $\pm 5\%$ - ISO10816
Isolation	Base isolated
Measurement Range	50 g peak
Transverse Sensitivity	Less than 5%

## Electrical

Output Current	4-20 mA DC proportional to RMS velocity (mm/s) and ac g for data collectors
Supply Voltage	15 - 30 Volts DC (for 4-20 mA)
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 80 °C
Sealing	IP67
Maximum Shock	5000 g
Emissions	EN61000-6-4:2001
Immunity	EN61000-6-2:1999

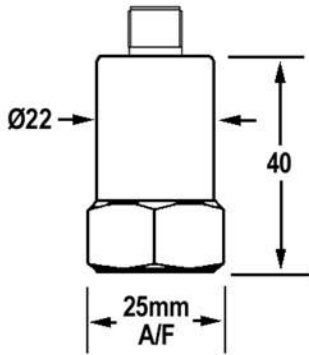
## Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	8 Nm
Weight	150 gms (nom)
Maximum Cable length	1000 metres
Connector	M12 - Straight or Right Angle
Mounting Threads	See 'How to order' table
Options	Ranges, connector, side exit cable, other cable lengths, intrinsically safe, high temperature

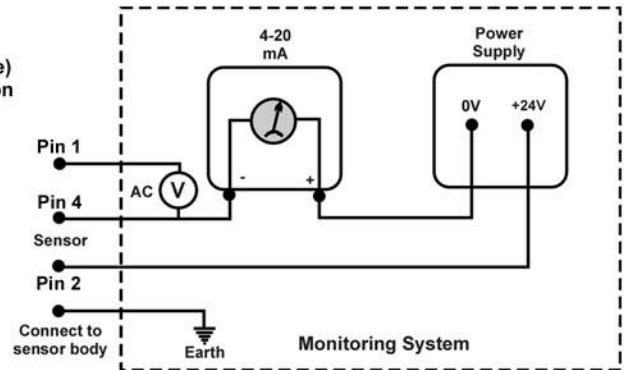
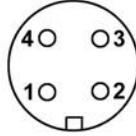
PRODUCT DATA

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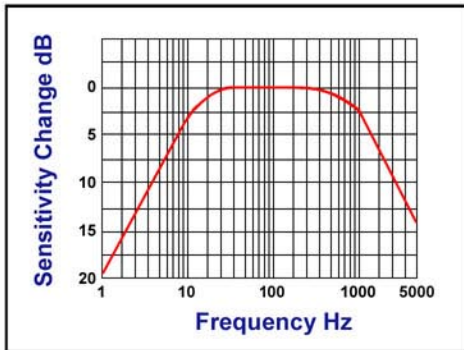
## Dimensions



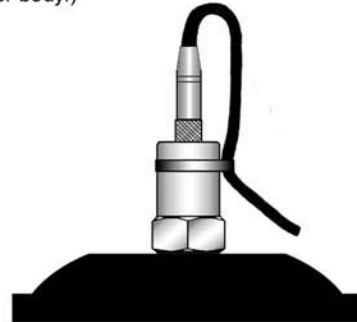
Pin 1 - AC (brown)  
 Pin 2 - Supply (white)  
 Pin 3 - No connection  
 Pin 4 - 0V (black)



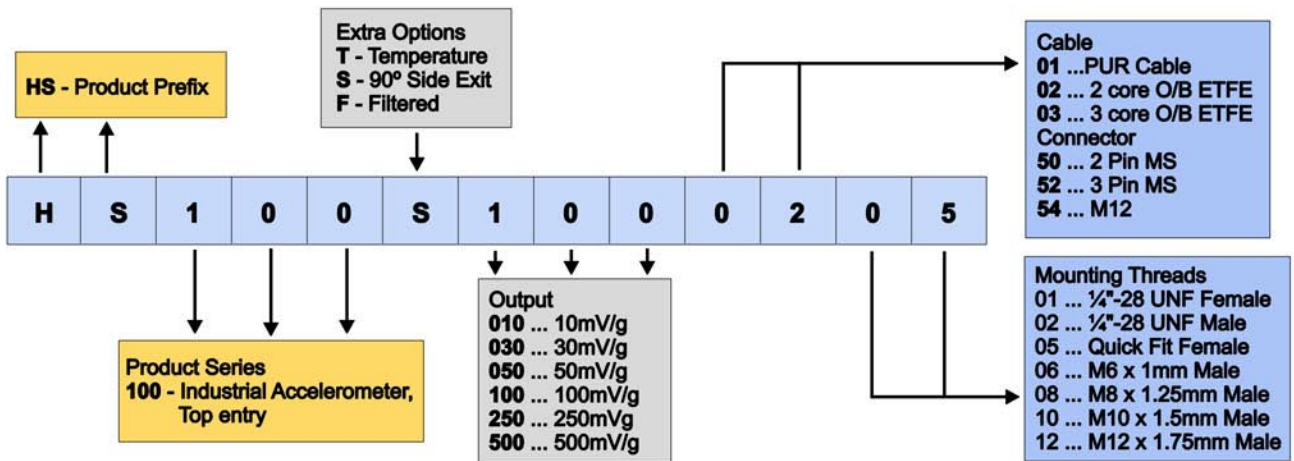
## Frequency Response



Mounting of sensor to achieve good repeatable readings. 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



Please contact our Sales Office for information on sensor accessories (mounting studs, etc) and multichannel switch boxes.