

MON-421 Series Vibration Sensor

Submersible, 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 90 °C
Sealing	IP68
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	140 gms (nom)
Cable	Blue Silicon - length to be specified on order
Mounting Threads	See 'How to order' table
Submersible Depth	100 Metres max (10 bar)
Options	Ranges, other cable lengths, intrinsically safe



MONITION LTD

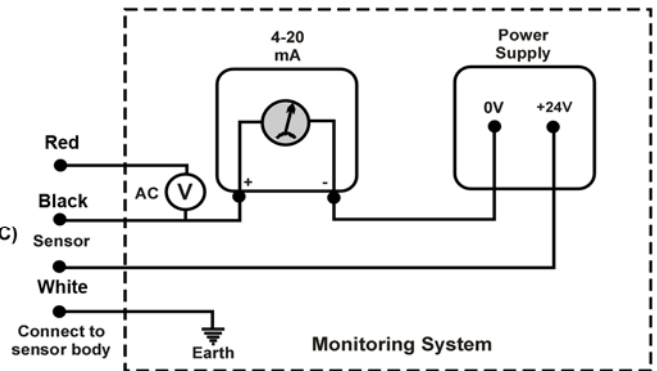
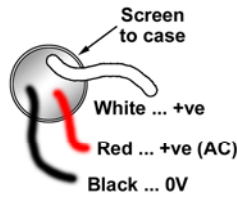
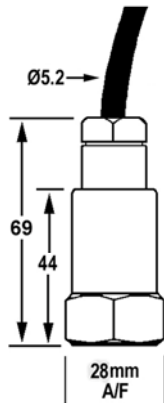
Condition Monitoring
& Plant Reliability Services

Tel: +44(0) 1909 722000
Fax: +44(0) 1909 722208
Email: sales@monition.com
Web: www.monition.com

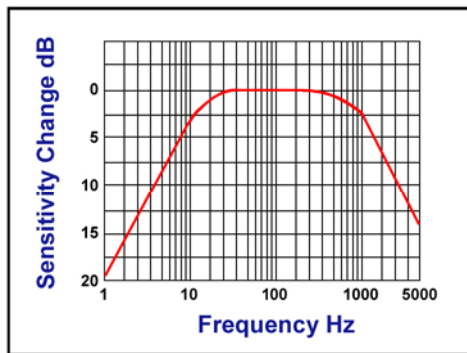
PRODUCT DATA

MON-421 Series Vibration Sensor

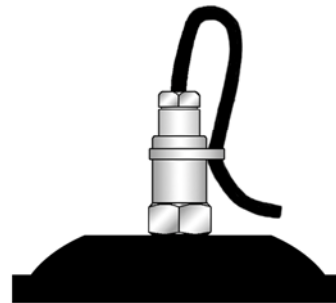
Dimensions



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

Extra Options
F - Filtered

4 2 X F X X X 0 7 0 5

Product Series
420 - 4-20mA Velocity Output (mm/s)
421 - 4-20mA Velocity (mm/s) and AC Output
422 - 4-20mA Acceleration ('g' RMS)

For 420 Series & 421 Series VELOCITY RANGE
010 ... 0-10 mm/sec RMS
020 ... 0-20 mm/sec RMS
025 ... 0-25 mm/sec RMS
050 ... 0-50 mm/sec RMS
100 ... 0-100 mm/sec RMS

For 421 Series only AC (SENSITIVITY)
100 mV/g
100 mV/g
100 mV/g
50 mV/g
50 mV/g

For 422 Series ACCELERATION RANGE
001 ... 0-1 g RMS
002 ... 0-2 g RMS
005 ... 0-5 g RMS
010 ... 0-10 g RMS
100 ... 0-100 g RMS

Cable
07 ... Blue Silicon Screened

Mounting Threads
01 ... 1/4"-28 UNF Female
02 ... 1/4"-28 UNF Male
05 ... Quick Fit Female
06 ... M6 x 1mm Male
08 ... M8 x 1.25mm Male
10 ... M10 x 1.5mm Male
12 ... M12 x 1.75mm Male

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

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