

SR-LPS-420 Series Vibration Sensor

4-20mA Velocity Transducer for PLC Interface , MIL 2 pin connector



SALIENT FEATURES :

Low cost on-line 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 .

SR-LPS-420 SENSOR will interface directly to your PLC, DCS or SCADA control system. The signal can be processed in the PLC, DCS and SCADA directly. These sensors provide 24/7 online protection for key plant machinery to reduce downtime.

VIBRATION AS A MACHINE CONDITION INDICATOR :

Machines seldom break down without warning; the signs of impending failure are usually present long before breakdown makes the machine unusable. Machine troubles are almost always characterised by an increase in vibration level which can be measured on some external surface of the machine and thus act as an indicator. Vibration monitoring plays vital role in plant maintenance to decide root cause of machine failure beforehand & this will lead to increased productivity & profitability.

PROTECTION OF...

Fans, Motors, Pumps, Compressors, Centrifuges, Conveyers, Air Handlers, Gearboxes, Dryers, Presses, HVAC, Spindles, Machine Tooling, Process Equipment and many more...

Technical Performance

Mounted Base Resonance Velocity Ranges	5 kHz min. 0-10/20/25/50/100 mm/sec RMS $\pm 5\%$ Nominal 80 Hz at 22 °c
Frequency Response	2Hz. - 2.5kHz $\pm 5\%$ -ISO10816
Isolation	Base isolated
Measurement Range	50 g Peak
Transverse Sensitivity	Less than 5%
Linear Accuracy (Measurement)	$\pm 5\%$

Electrical

Output Current	4-20 mA DC proportional to RMS velocity (mm/s)
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°C to 120°C
Sealing	IP 68
Maximum Shock	5000 g
EMC	EN 61326-1:2013

Mechanical

Case Material	Stainless Steel
Sensing Element/Construction	PZT/Compression
Mounting Torque	8 Nm
Weight	100 gms (nom)
Maximum Cable length	1000 metres
Standard Cable	5 metres armoured ETFE
Mounting Threads	See 'How to order' table
Options	Ranges, connector Other cable lengths,

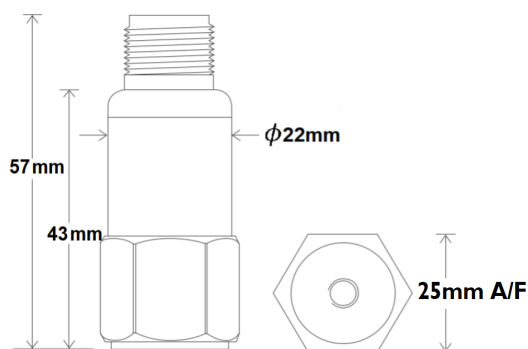
PRODUCT DATA

SR-LPS-420 Series Vibration Sensor

4-20mA Velocity Transducer for PLC Interface , MIL 2 pin connector

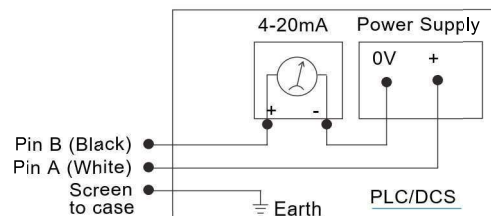
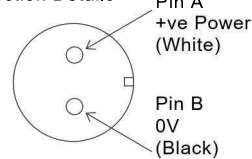


Dimensions

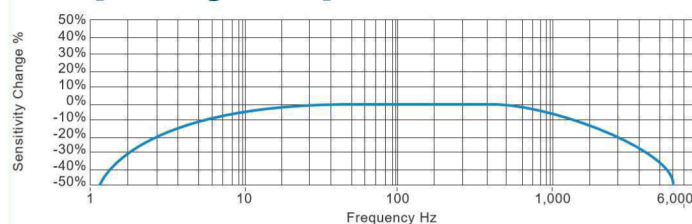


*All the measurements are with +/- 1mm tolerance

Connection Details

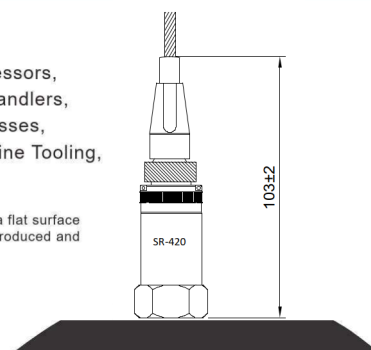


Frequency Response



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.)



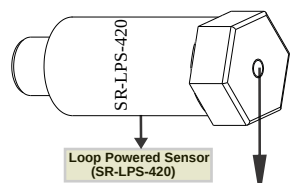
*All Dimensions are in mm

How to Order

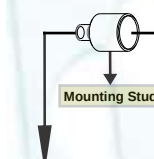
SR-LPS-Product Prefix



SCHEME

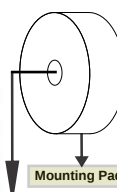


Mounting Threads
1/4"-28UNF-(Female)



Mounting Threads
1/4"-28UNF-(Male)

Mounting Option for Male:-
01-M8
02-M10



Mounting Option for Female:-
01-M8
02-M10

For 420 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

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

*Additional Option available for Teflon Stud.

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