

# SR-LPS-420 Series Vibration Sensor

Braided Cable, 4-20mA Velocity Transducer for PLC Interface



## 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  $\pm 10\%$   
Nominal 80 Hz at 22 °C

Frequency Response  
Isolation

2 - 2.5 kHz  $\pm 5\%$  ISO10816

Measurement Range  
Transverse Sensitivity

Base isolated  
50 g Peak  
Less than 5%

## Electrical

Output Current  
Supply Voltage  
Settling Time  
Output Impedance  
Case Isolation

4-20 mA DC proportional to RMS velocity (mm/s)  
15 – 30 Volts DC (for 4-20 mA)  
2 seconds  
Loop Resistance 600 Ohms max. at 24 Volts  
>10<sup>8</sup> Ohms at 500 Volts

## Environmental

Operating Temperature Range  
Sealing  
Maximum Shock  
Emissions  
Immunity

-25 to 120 °C  
IP 68  
5000 g  
EN61000 -6-4:2001  
EN61000 -6-2:1999

## Mechanical

Case Material  
Sensing Element/Construction  
Mounting Torque  
Weight  
Maximum Cable length  
Standard Cable  
Mounting Threads  
Options

Stainless Steel  
PZT/Compression  
8 Nm  
135 gms (nom)  
1000 metres  
5 metres armoured ETFE  
See 'How to order' table  
Ranges, connector  
Other cable lengths, intrinsically safe.

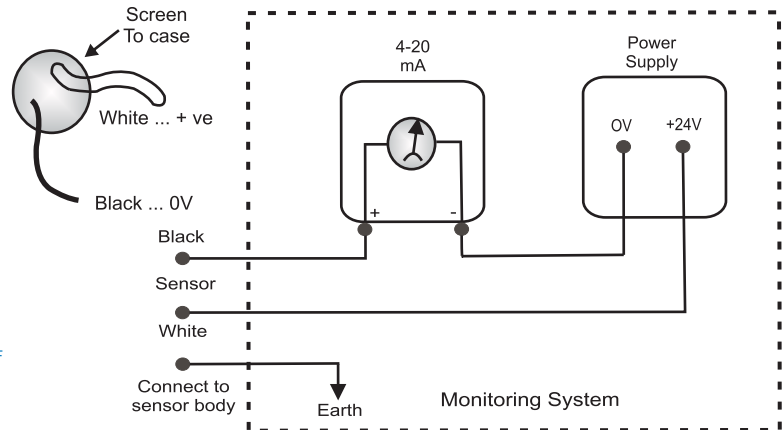
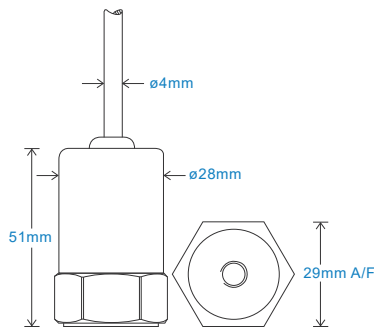
PRODUCT DATA

# SR-LPS-420 Series Vibration Sensor

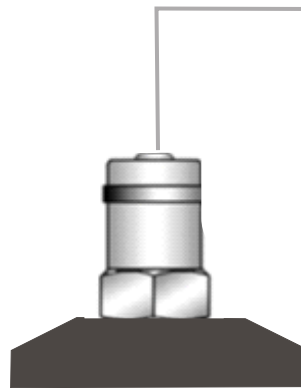
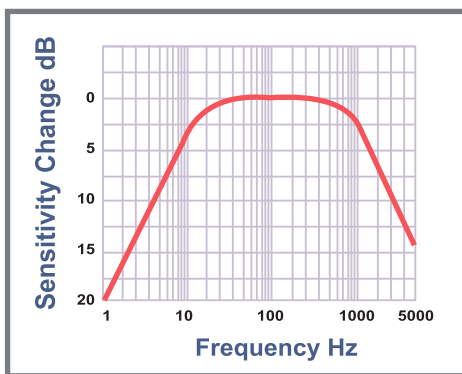
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## Dimensions



## Frequency Response



## How to Order

### SR-LPS-Product Prefix



Product Prefix SR - Schenck Sensors		Product Series 420 - Industrial Vibration Sensor		Cable Length (if integral cable) QXX - length specified in metres											
S	R	4	2	0	X	X	X	X	X	X	X	X	X	X	X
Extra Options (if required) F - Filtered L - 316L Stainless Steel 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 02 - Braided 07 - Silicon 08 - Flame Retardant 50 - 2 Pin MS 54 - M12			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	

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

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