



## CMCP420VT Series Loop Powered 4-20mA Vibration Velocity Sensor



### Features:

- Loop Powered 4-20mA Output
- Velocity RMS Output
- 2 to 2,000 Hz (120 to 120k CPM) Frequency Response
- Two Ranges Available
- Dynamic Signal output (Buffered Output)
- Terminal Block Connection
- Class I Division II Groups B-D Approved Standalone
- RoHS Compliant

### Typical Applications:

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

### Technical Performance

Ranges: -01 Model: 0-1.0 In/Sec RMS (0-25.4mm/Sec.)  
 -02 Model: 0-2.0 In/Sec RMS (0-50.8mm/Sec.)

Frequency Response: 2 Hz to 2,000 Hz (120 to 120k CPM) ± 5%  
 ISO 10816

Isolation: Base Isolated  
 Measurement Range: 50 g peak  
 Transverse Sensitivity: Less than 5%  
 Dynamic Output: 100mV/g ± 5%

### Electrical

Output Current: 4-20mA DC Proportional to RMS Velocity  
 Supply Voltage: 22 to 36 VDC  
 Settling Time: 3 Seconds  
 Output Impedance: Loop Resistance 600 Ohms Max @ 24VDC  
 Case Isolation: >100 Ohms at 500 Volts

### Environmental

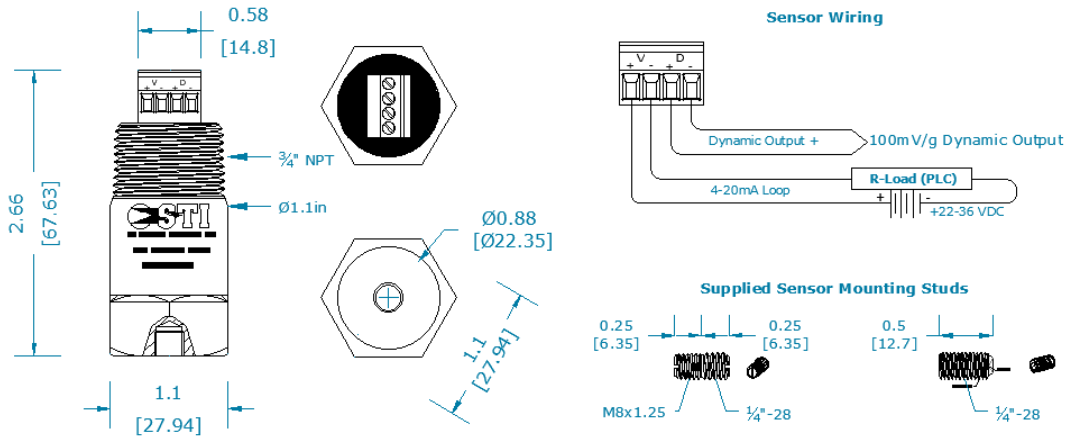
Operating Temperature Range: -13 to 194°F (-25 to 90°C)  
 Sealing: IP65 (IP67 with CMCP420BNC or CMCP420XPHD)  
 Maximum Shock: 5000 g

### Mechanical

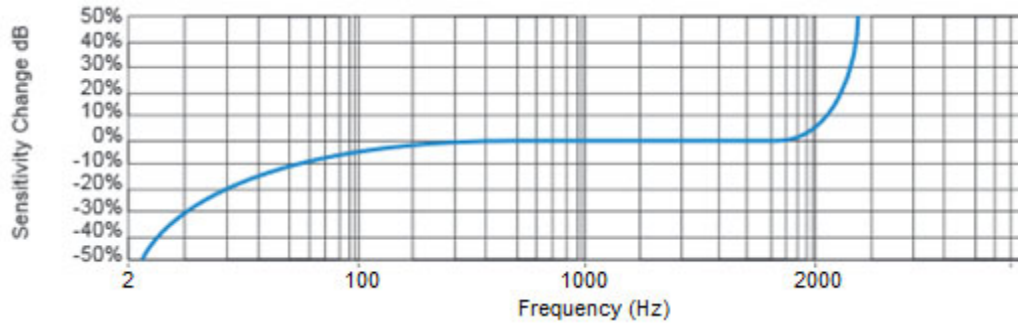
Case Material: Stainless Steel  
 Sensing Element: PZT/Compression Type  
 Mounting Torque: 70 Lb.-In  
 Weight: 8 Oz (226g)  
 Mounting: 1/4"-28 UNF Mounting Stud (Supplied with Sensor)  
 M8x1.25 Mounting Stud (Supplied with Sensor)  
 Mounting Adapters Available (CMCP237 and CMCP238 Series)  
 Mating Connector: 18-24AWG (0.81 – 0.32mm<sup>2</sup>) Instrumentation Cable  
 Twisted, Shielded Pair

**Approvals:**  
 Class 1 Division 2 Groups B-D  
 UL1604, CSA C22.2 No. 213  
 CE Approved  
 RoHS Compliant

**Dimensions and Connection Details:**



**Typical Frequency Response:**



**Ordering Information:**

CMCP420VT	-XX	-X	-XXX	Description
	-01			1.00 In/Sec Full Scale (25.4mm/Sec)
	-02			2.00 In/Sec Full Scale (50.8mm/Sec)



CMCP420VT-T Series  
 Dual Output Vibration and  
 Temperature 4-20mA Sensor



CMCP422VT-XX-X-C  
 4-20mA Velocity Sensor with 2  
 Pin MS5015 Connector



CMCP422VT-XX-X-I  
 4-20mA Velocity Sensor with 5  
 Meter Integral Cable

# CMCP420VT Accessories



## CMCP420WF

Weatherproof Cable Fitting  
0.18 to 0.22" Diameter Cables  
Requires CMCP420EL

## CMCP420EL

3/4" to 3/4" NPT Elbow

## CMCP420BNC

3/4" Elbow with BNC Output for Buffered Signal (Data Collector Connection)

## CMCP200-01

Sensor Mounting Pad

## CMCP203-XX

NPT Mounting Thread Adapter (Adapts 1/4"-28 to NPT)

- 01: 1/2" NPT
- 02: 3/4" NPT
- 03: 3/8" NPT
- 04: 1/4" NPT

## CMCP420LED-XX

LED Display, Mounts on Top of CMCP420VT Series

- 01: 1.00 In/Sec Full Scale
- 02: 2.00 In/Sec Full Scale
- 51: 25.4mm/Sec Full Scale
- 52: 50.8mm/Sec Full Scale

## CMCP420XPHD-XX

Explosionproof Conduit Head for CMCP420VT

- 01: Epoxy Coated Aluminum
- 02: 316 Stainless Steel