

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) \pm 5% ISO 10816 |
| Isolation: | Base Isolated |
| Measurement Range: | 50 g peak |
| Transverse Sensitivity: | Less than 5% |
| Dynamic Output: | 100mV/g \pm 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 ²) Instrumentation Cable Twisted, Shielded Pair |

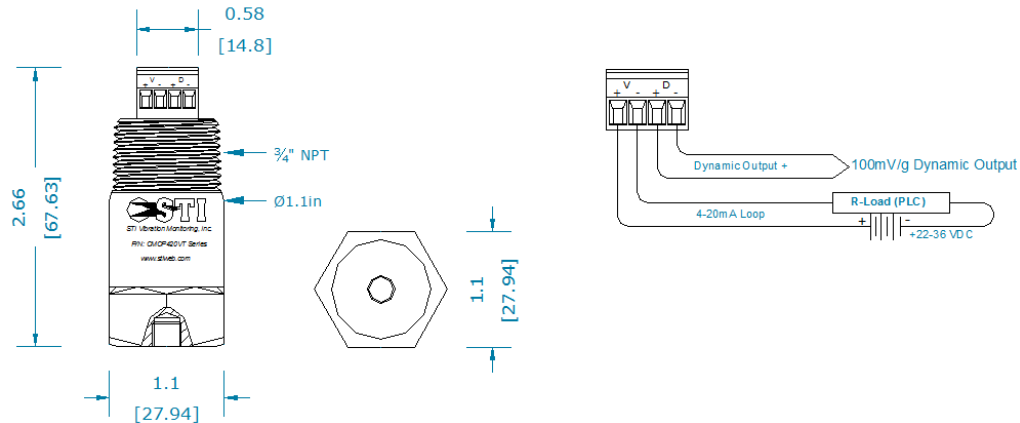
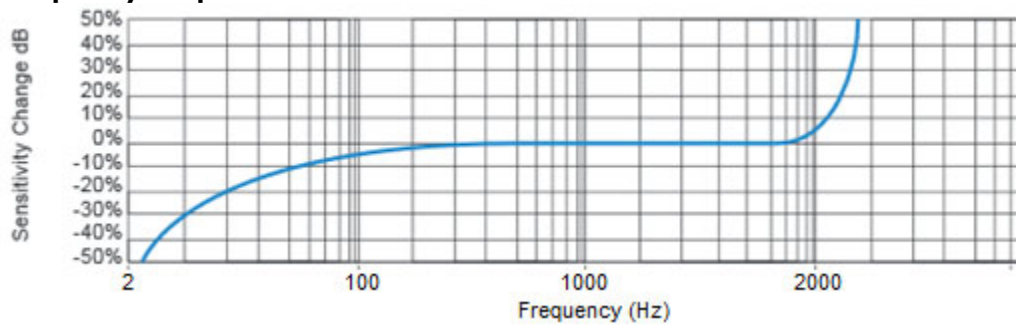
Approvals:

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