



STI Vibration Monitoring Inc.

Condition Monitoring Custom Products

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
Base Isolated
Isolation:
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

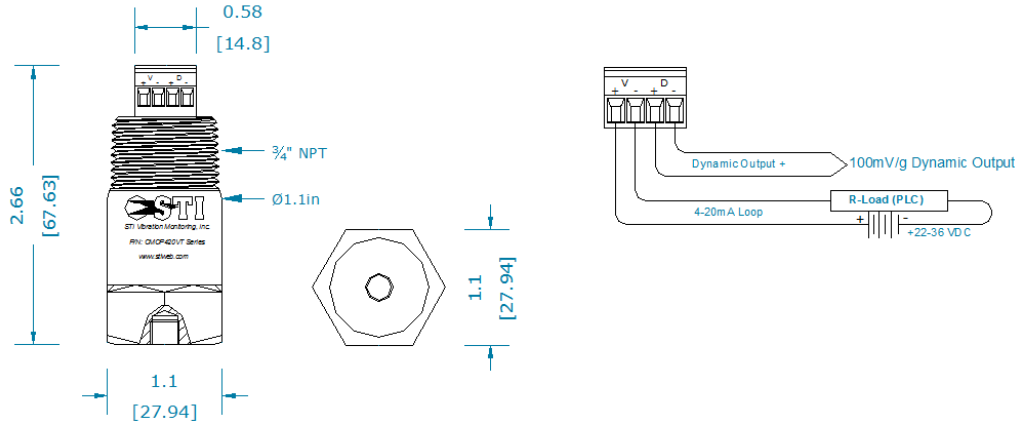
Operating Temperature Range: -13 to 194°F (-25 to 90°C)
Sealing: IP65 (IP67 with CMCP420BNC or CMCP420XPHD)
Maximum Shock: 5000 g

Mechanical

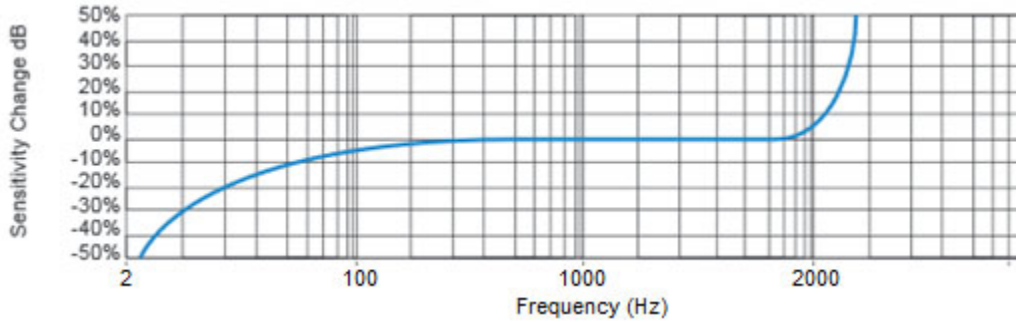
Case Material: Stainless Steel
Sensing Element: PZT/Compression Type
Mounting Torque: 70 Lb.-In
Weight: 8 Oz (226g)
Mounting: 1/4"-28 UNF Mounting Stud (Supplied with Sensor)
M8x1.25 Mounting Stud (Supplied with Sensor)
Mounting Adapters Available (CMCP237 and CMCP238 Series)
Mating Connector: 18-24AWG (0.81 – 0.32mm²) 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