



### CMCP420VT-T/Ex Series

Loop Powered 4-20mA Velocity and Temperature Sensor  
IECEX/ATEX Exd Approved



#### Features:

- IECEX and ATEX Approved (Ex d)
- Velocity and Temperature Outputs
- Two Loop Powered 4-20mA Outputs
- 2 to 2,000 Hz (120 to 120k CPM) Frequency Response
- 32 to 212°F (0 to 100°C) Measuring Range
- Two Ranges Available
- Flameproof Connection Head Included
- 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: -T1 Model: 0-1.0 In/Sec RMS (0-25.4mm/Sec.)  
 -T2 Model: 0-2.0 In/Sec RMS (0-50.8mm/Sec.)

Temperature Range: 32 to 212°F (0 to 100°C)

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%

#### Electrical

Output Current: Two 4-20mA DC Outputs Proportional to RMS Velocity and Temperature

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: -4 to 174°F (-20 to 79°C)

Sealing: IP68

Maximum Shock: 5000 g

#### Mechanical

Sensor Case Material: Stainless Steel

Housing Material: Epoxy Coated Cast Aluminum (See CMCP420XPHD)

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: Terminal Block, 4 Position

Conduit/Gland Entry: Accepts 18-24AWG (0.81 – 0.32mm<sup>2</sup>) Instrumentation Cable  
 3/4" NPT

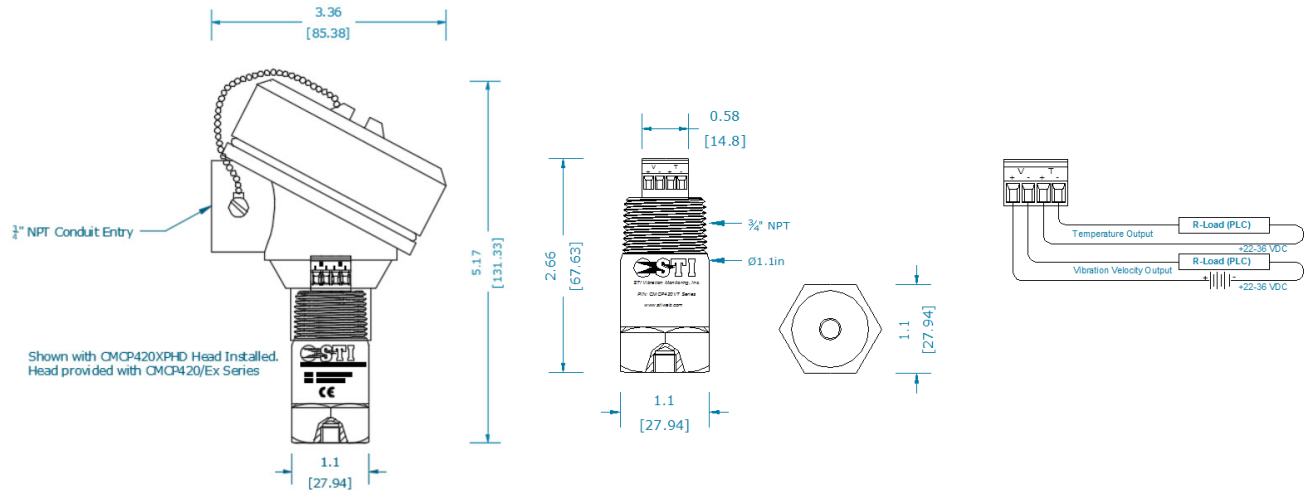
### Approvals:

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

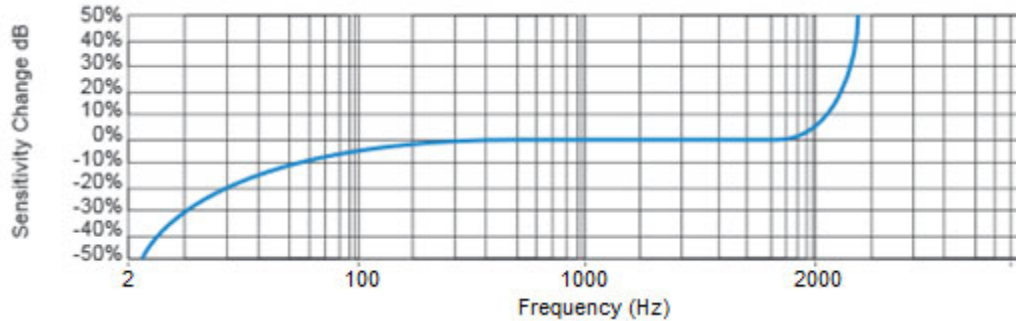
IECEX BAS20.0003X  
Baseefa20ATEX0011X

Ex II 2G  
Ex db IIC T6 (-20°C ≤ Ta ≤ +79°C)

### Dimensions:



### Typical Frequency Response:



### Ordering Information:

CMCP420VT-T1/Ex Dual Output Vibration and Temperature Sensor, 1.00 in/s (25.4mm/s) RMS Range  
IECEX/ATEX Approved

CMCP420VT-T2/Ex Dual Output Vibration and Temperature Sensor, 2.00 in/s (50.8mm/s) RMS Range,  
IECEX/ATEX Approved

### Installation Notes:

Refer to CMCP420VT/Ex Series Installation Manual for More Information.  
CMCP420VT/Ex Provided with CMCP420XPHD Flameproof Housing