

**CMCP420VT/Ex Series**Loop Powered 4-20mA Velocity Sensor  
IECEX/ATEX Exd Approved**Features:**

- IECEX and ATEX Approved (Ex d)
- 4-20mA Velocity Output
- 100mV/g Dynamic Signal Output
- 2 to 2,000 Hz (120 to 120k CPM) Frequency Response
- 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:	-01 Model: 0-1.0 In/Sec RMS (0-25.4mm/Sec.) -02 Model: 0-2.0 In/Sec RMS (0-50.8mm/Sec.)
Dynamic Output:	100mV/g $\pm$ 5%
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%

**Electrical**

Output Current:	4-20mA DC Outputs 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:	-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 Accepts 18-24AWG (0.81 - 0.32mm <sup>2</sup> ) Instrumentation Cable
Conduit/Gland Entry:	3/4" NPT

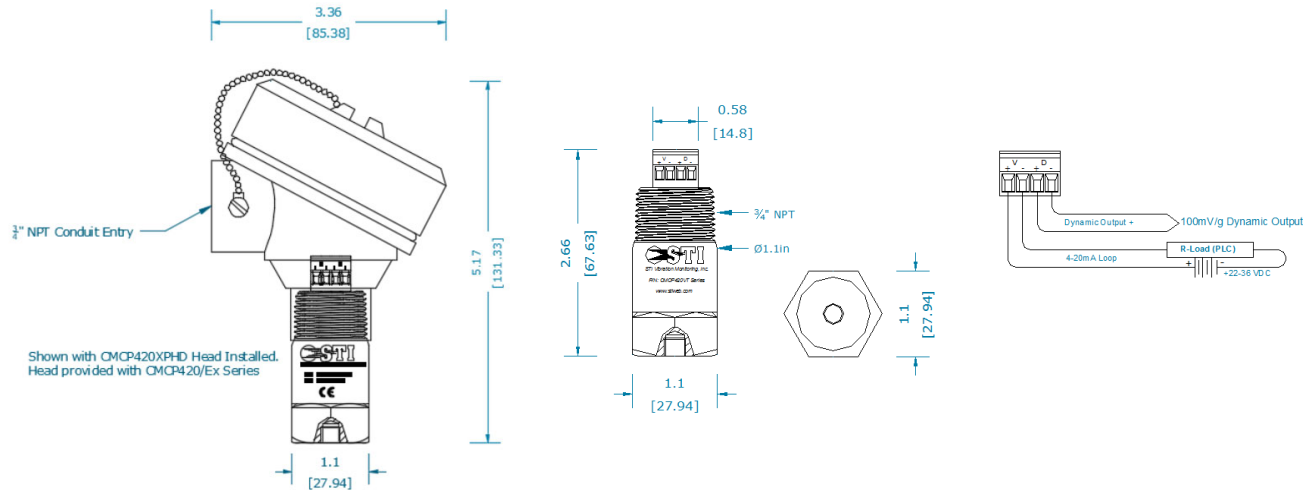
### Approvals:

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

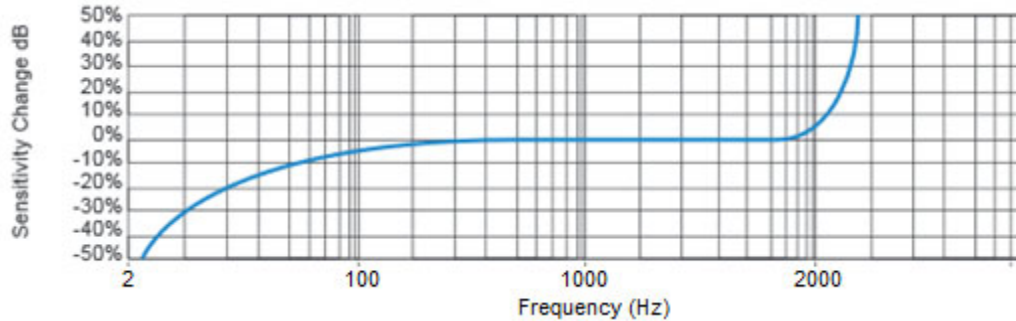
IECEX BAS20.0003X  
Baseefa20ATEX0011X

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

### Dimensions:



### Typical Frequency Response:



### Ordering Information:

CMCP420VT-01/Ex 4-20mA Velocity Sensor, 1.00 in/s (25.4mm/s) RMS Range, IECEx/ATEX Approved

CMCP420VT-02/Ex 4-20mA Velocity 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