

# Vibration Monitoring and Machine Protection Systems

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# CMCP786A-M12 General Purpose Top Exit Accelerometer, M12 Connector



#### Features:

- · General Purpose Top Exit Accelerometer
- 100mV/g ±10% (Standard, Others Available)
- 4 Pin M12 Eurofast Connector
- Class 1 Division 2 Approved
- Class 1 Division 1 Approved with IS Barrier or Isolator
- -67 to +284°F (-55 to +140°C) Extended Temperature Range
- ±80g Range
- ¼"-28 UNF Mounting Stud Included (Adapters Available)
- Sealed to IP68



## **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**

Mounted Base Resonance: 22 kHz (nominal)

Sensitivity:  $100 \text{mV/g} \pm 10\% \text{ Nominal } 80 \text{Hz at } 22 ^{\circ}\text{C}$ Frequency Response:  $2 \text{ Hz to } 10 \text{ kHz} \pm 5\% \text{ (} 120 \text{ cpm to } 600 \text{k cpm}\text{)}$  $1.5 \text{ Hz to } 12 \text{ kHz} \pm 10\% \text{ (} 90 \text{ cpm to } 720 \text{k cpm}\text{)}$  $0.8 \text{ Hz to } 15 \text{ kHz} \pm 3 \text{dB (} 48 \text{ cpm to } 900 \text{k cpm}\text{)}$ 

Base Isolated

Measurement Range: ±80 g

Transverse Sensitivity: Less than 5%

## **Electrical**

Isolation:

Electrical Noise: 0.1mg max
Current Range: 0.5mA to 8mA
Bias Voltage: 10-12 Vdc
Settling Time: 1 Second
Output Impedance: 200 Ohms max.

Case Isolation: >108 Ohms at 500 Volts

#### **Environmental**

Operating Temperature Range: -67 to 284°F (-55 to 140°C)

Sealing: IP68
Maximum Shock: 5000 g
Approvals: CE Approved

CSA/UL Class 1 Division 2, Groups B, C and D

#### Mechanical

Case Material: Stainless Steel
Sensing Element: PZT/Shear
Mounting Torque: 5.9ft. lbs (8Nm)
Weight: 4.9 Oz (139 grams)

Mounting: 1/4"-28 UNF Mounting Stud (Supplied with Sensor)

Adapters Available, See CMCP237 (Metric) and CMCP238 (Imperial) Series

Mating Connector: 4 Pin M12 Eurofast Cordset



## **Hazardous Location Ratings**

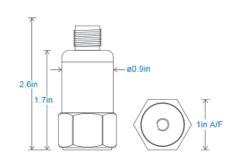
Class I, II, III, Division 1 and 2, Groups A-G, T4, -55°C to + 110°C IP65 Class 1, Zone 0, AEx, ia, IIC, T4, Ga, -55°C to + 110°C Zone 20, AEx, ia, IIIC, T130°C, IP65, Da, -55°C to + 110°C Class I, II, III, Division 1, 2, Groups A-G, T6, -55°C to + 110°C Zone 20, AEx, ia, IIIX, T80°C, IP65, DA, -55°C to + 110°C

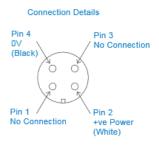
## **Optional Modifications**

Non-Stocked Sensitivities: 50mV/g (-050), 250mV/g (-250) and 500mV/g (-500)

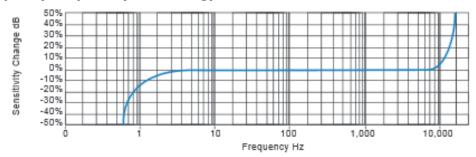
Sensitivity specified after base part number (ex. CMCP786A-M12-500)

## **Dimensions**





## Typical Frequency Response (at 100mV/g)



## **Ordering Information:**

CMCP786A-M12 General Purpose Accelerometer, Top Exit, 100mV/g with 4 Pin M12 Eurofast Connector

# **Alternative Sensitivity Ordering Information:**

CMCP786A-M12-XXX Specify Sensitivity in Place of -XXX

50mV/g (-050), 250mV/g (-250) and 500mV/g (-500)

#### **Similar Products:**



**CMCP786A-I**Integral Armored Cable



CMCP786A 2 Pin MS 5015 Connector