

## CMCP785A-LF-I Low Frequency Side Entry Accelerometer, Armored Cable



### Features

- Low Frequency Top Entry Accelerometer
- 500 mV/g  $\pm 10\%$
- 0.2 Hz to 15 kHz (12 cpm to 900 kcpm)
- 140°C Max Temperature Range
- $\pm 16$  g Dynamic Range
- Integral Braided Armored Cable
- Class 1 Division 2 Approved
- Class 1 Division 1 Approved with IS Barrier or Isolator
- 1/4"-28 UNF or M8x1.25 Captive Mounting Bolt
- Sealed to IP65



### 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:	17 kHz (nominal)
Sensitivity:	500 mV/g $\pm 10\%$ Nominal 80 Hz at 22°C
Frequency Response:	1.5 Hz to 10kHz $\pm 5\%$ (90 cpm to 600 kcpm) 0.5 Hz to 12 kHz $\pm 10\%$ (30 cpm to 720 kcpm) 0.2 Hz to 15 kHz $\pm 3$ dB (12 cpm to 900 kcpm)
Isolation:	Base Isolated
Measurement Range:	$\pm 16$ g
Transverse Sensitivity:	Less than 5%

### Electrical

Supply Voltage:	18-30 VDC
Current Range:	0.5 to 8 mA
Bias Voltage:	10-12 VDC
Electrical Noise:	0.1 mg Max.
Settling Time:	2 Second
Output Impedance:	200 Ohm Max.
Case Isolation:	$>10^8$ Ohm at 500 Volt

### Environmental

Operating Temperature Range:	-67 to 284°F (-55 to 140°C)
Sealing:	IP65
Maximum Shock:	5000 g
Approvals:	CE and UKCA Approved CSA/UL Class 1 Division 2, Groups B, C and D

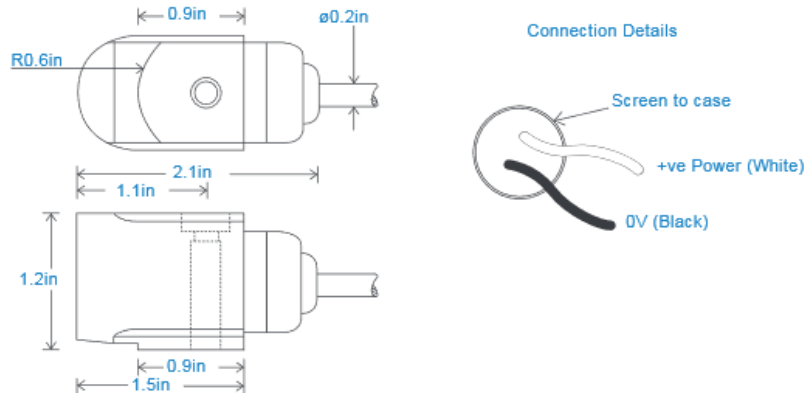
### Mechanical

Case Material:	Stainless Steel
Sensing Element:	PZT/Compression
Mounting Torque:	5.9 ft-lb (8 Nm)
Weight:	6.5 Oz (185 gram), Sensor only
Mating Connector:	Flying Leads (Integral Braided Armored Cable)
Mounting Thread:	
CMCP785A-LF-I:	1/4"-28 UNF Captive Bolt Supplied with Sensor
CMCP785A-LF-I-M8:	M8x1.25 Captive Bolt Supplied with Sensor

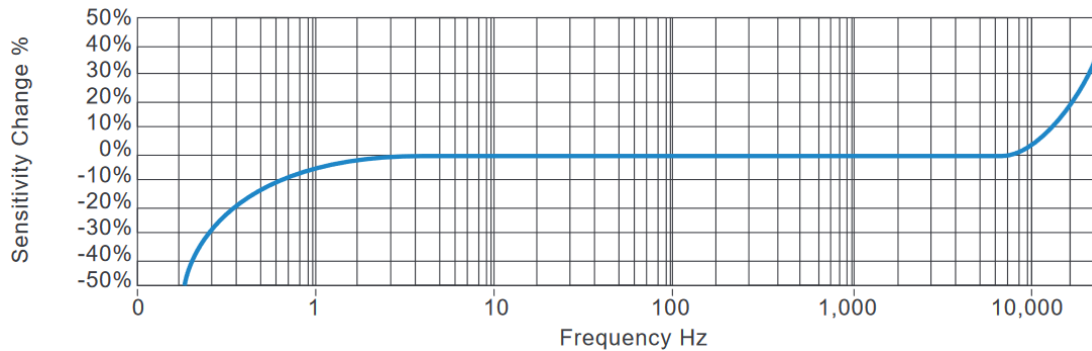
## Hazardous Location Ratings

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

## Dimensions



## Typical Frequency Response



## Ordering Information

CMCP785A-LF-**IXX** Low Frequency Side Entry Accelerometer, 500 mV/g, Armored Cable, ¼-28 UNF Mount  
 CMCP785A-LF-**IXX**-M8 Low Frequency Side Entry Accelerometer, 500 mV/g, Armored Cable, M8x1.25 Mount  
 (Specify Cable Length in Meters in Place of XX)

## Alternative Sensitivity Ordering Information

Part Number	Sensitivity	Measurement Range	Base Resonance
CMCP785A-LF-I-100	100 mV/g	±80 g	21 kHz
CMCP785A-LF-I-250	250 mV/g	±32 g	19 kHz

## Similar Products



**M12 Connector**  
 CMCP785A-LF-M12



**Submersible**  
 CMCP785A-LF-IP



**MS Connector**  
 CMCP785A