

CMCP785A-LF-IP Low Frequency Side Entry Accelerometer, Submersible



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
- ± 16 g Dynamic Range
- Integral PUR Cable (Submersible)
- 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 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:	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 ± 3 dB (12 cpm to 900 kcpm)
Isolation:	Base Isolated
Measurement Range:	± 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:	IP68
Submersible:	Up to 100 meter (10 bar)
Maximum Shock:	5000 g
Approvals:	CE and UKCA Approved CSA/UL Class 1 Division 2, Groups B, C and D

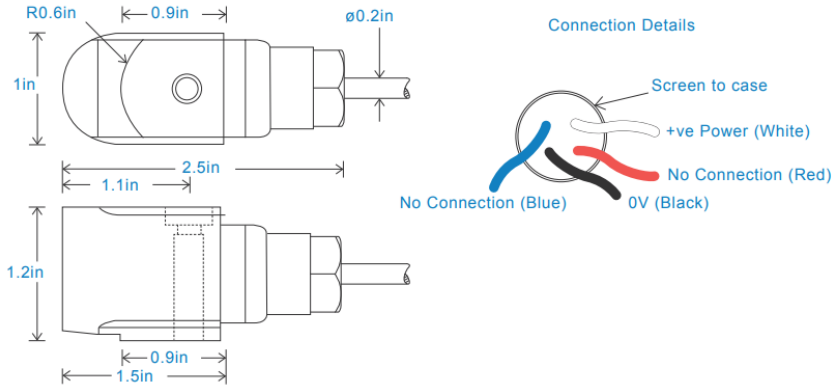
Mechanical

Case Material:	Stainless Steel
Cable Jacket:	PUR (Polyurethane)
Sensing Element/Construction:	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-IP:	1/4"-28 UNF Captive Bolt Supplied with Sensor
CMCP785A-LF-IP-M8:	M8x1.25 Captive Bolt Supplied with Sensor

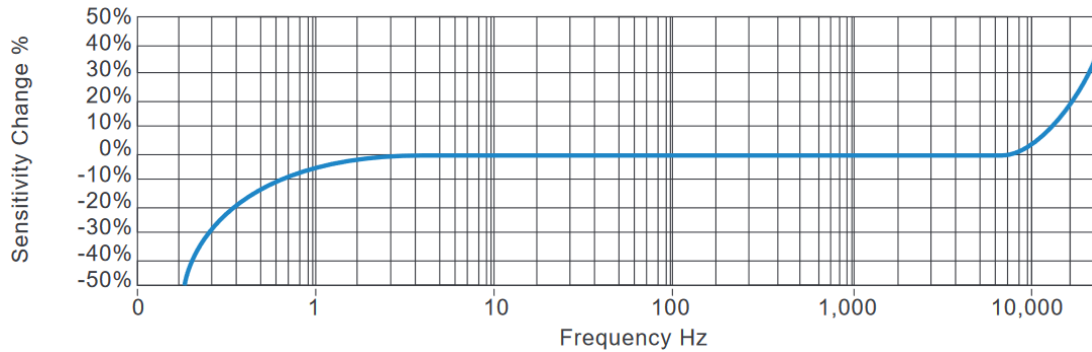
Hazardous Location Ratings

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-IP Low Frequency Side Entry Accelerometer, 500 mV/g, Submersible, Cable Length 5 Meter (16 ft), ¼-28 UNF Mount
 CMCP785A-LF-IPXX Low Frequency Side Entry Accelerometer, 500 mV/g, Submersible, ¼-28 UNF Mount
 CMCP785A-LF-IPXX-M8 Low Frequency Side Entry Accelerometer, 500 mV/g, Submersible, 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-IP-100	100 mV/g	±80 g	21 kHz
CMCP785A-LF-IP-250	250 mV/g	±32 g	19 kHz

Similar Products



M12 Connector
CMCP785A-LF-M12



Submersible
CMCP785A-LF-I



MS Connector
CMCP785A