

Low-frequency, intrinsically safe accelerometer

787-500-IS






SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25°C	500 mV/g
Acceleration range, VDC > 22 V	10 g peak
Amplitude nonlinearity	1%
Frequency response¹:	
$\pm 10\%$	0.5 - 5,000 Hz
± 3 dB	0.2 - 10,000 Hz
Resonance frequency	22 kHz
Transverse sensitivity, max	5% of axial
Temperature response:	
-20°C	-10%
+120°C	+10%
Power requirement:	
Voltage source	18 - 28 VDC
Current regulating diode	2 - 10 mA
Electrical noise, equiv. g¹:	
Broadband	2.5 Hz to 25 kHz
Spectral	10 Hz
	100 Hz
	1,000 Hz
	250 μ g
	2.5 μ g/ $\sqrt{\text{Hz}}$
	1.5 μ g/ $\sqrt{\text{Hz}}$
	1.5 μ g/ $\sqrt{\text{Hz}}$
Output impedance, max	100 Ω
Bias output voltage	12 VDC
Grounding	case isolated, internally shielded
Temperature range	-50° to +120°C
Vibration limit	500 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv. g, max	70 μ g/gauss
Sealing	hermetic
Base strain sensitivity, max	0.0002 g/ μ strain
Sensing element design	PZT, shear
Weight	145 grams
Case material	316L stainless steel
Mounting	1/4-28 captive hex head screw, 0.046" diameter safety wire hole
Output connector	2 pin, MIL-C-5015 style
Mating connector	R6 type
Recommended cabling	J10 / J9T2A, <100 ft.

Note: ¹ Frequency response limits, spectral and noise values are typical.

Accessories supplied: 1/4-28 captive hex head screw; calibration data (level 2)

Certifications

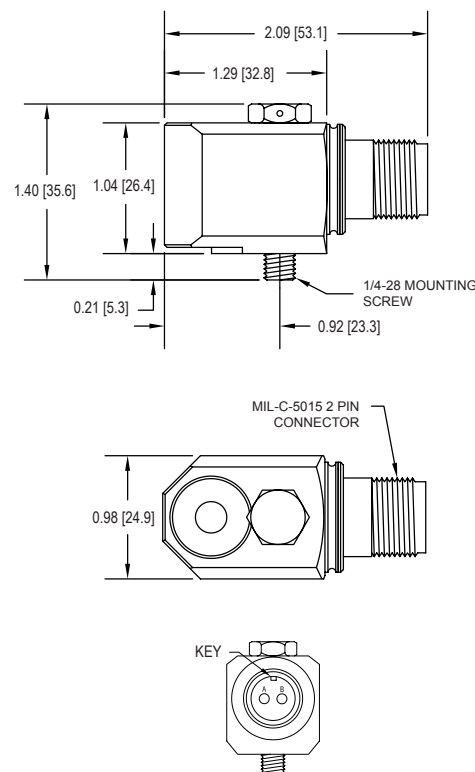
	Class I, Div 1 Groups A, B, C, D Class II, Div 1 Groups E, F, G Class III Class I Zone 0 AEx/Ex ia IIC T4 Ta = -50°C to 120°C		II 1 G Ex ia IIC T4 Ga Ta = -50°C to 120°C	
				

Must be installed per document 12879. For application in explosive atmospheres caused by gases, vapours or mists and where the use of apparatus of category 1G is required, electrostatic charges on the cable and non-metallic parts of the enclosure shall be avoided. The ambient temperature range for these applications is -40°C to +80°C.



Key features

- Hazardous area certified - intrinsically safe
- High sensitivity
- Extended low frequency response
- Manufactured in ISO 9001 facility



Connections	
Function	Connector pin
power/signal	A
common	B
ground	shell

Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.