

Intrinsically safe accelerometer






787A-IS

SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25°C	100 mV/g
Acceleration range	80 g peak
Amplitude nonlinearity	1%
Frequency response:	$\pm 10\%$ 1.0 - 5,000 Hz ± 3 dB 0.7 - 10,000 Hz
Resonance frequency	22 kHz
Transverse sensitivity, max	5% of axial
Temperature response:	-55°C -20% +120°C +10%
Power requirement:	
Voltage source	18 - 28 VDC
Current regulating diode	2 - 10 mA
Electrical noise, equiv. g:	
Broadband 2.5 Hz to 25 kHz	700 μ g
Spectral 10 Hz	10 μ g/ $\sqrt{\text{Hz}}$
100 Hz	5 μ g/ $\sqrt{\text{Hz}}$
1,000 Hz	5 μ g/ $\sqrt{\text{Hz}}$
Output impedance, max	100 Ω
Bias output voltage	12 VDC
Grounding	case isolated, internally shielded
Temperature range	-55° to +120°C
Vibration limit	500 g peak
Shock limit, min	5,000 g peak
Electromagnetic sensitivity, equiv. g, max	70 μ g/gauss
Sealing	hermetic
Base strain sensitivity, max	0.002 g/ μ strain
Sensing element design	PZT ceramic / 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

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

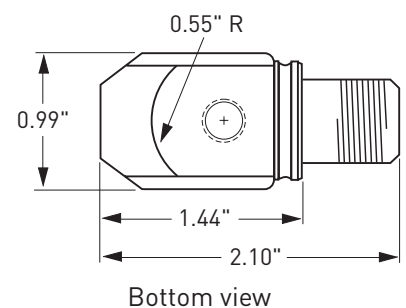
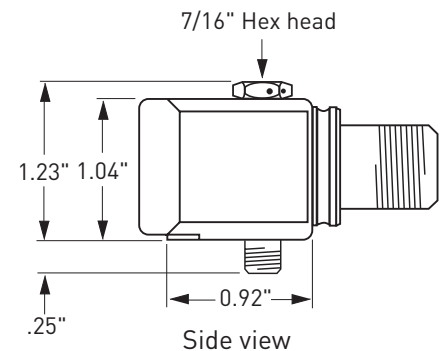
Certifications

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



Key features

- Hazardous area certified - intrinsically safe
- API 670 compliant
- Manufactured in ISO 9001 facility



Connections	
Function	Connector pin / cable conductor color
power/signal	A / white
common	B / black
ground	shell / shield

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