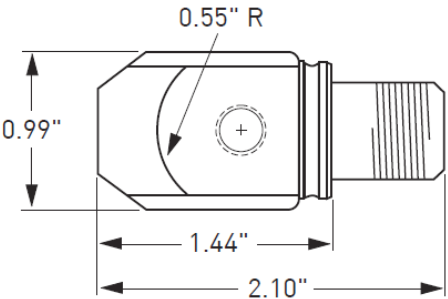
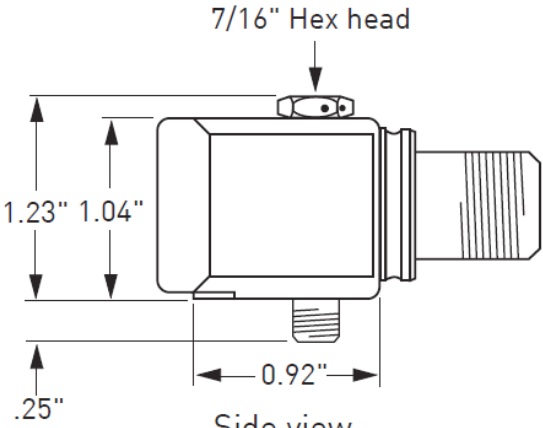


# Intrinsically safe certified, low profile accelerometer

## 787A-IS



Bottom view



Side view

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

### Key features

- Corrosion resistant
- Hermetic design
- Ground isolated
- ESD protection
- Reverse wiring protection
- Mounts in any orientation
- Hazardous area certified - intrinsically safe

### Certifications



Class I, Div 1 Groups A, B, C, D  
Class II, Div 1 Groups E, F, G  
Class III, Div 1  
Class I, Zone 0, Ex ia IIC T4  
Class I, Zone 0, Aex ia IIC T4



Ex ia IIC T4 Ga



For hazardous area locations, sensor must be installed in accordance with installation instructions or local code requirements. Electrical safety barrier required for hazardous area installations.



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

# Intrinsically safe certified, low profile accelerometer

## 787A-IS

### SPECIFICATIONS

<b>Sensitivity, <math>\pm 5\%</math>, 25° C</b>	100 mV/g
<b>Acceleration range</b>	80 g peak
<b>Amplitude nonlinearity</b>	1%
<b>Frequency response:</b>	$\pm 10\%$ 1.0 - 5,000 Hz $\pm 3$ dB 0.7 - 10,000 Hz
<b>Resonance frequency</b>	22 kHz
<b>Transverse sensitivity, max</b>	5% of axial
<b>Temperature response:</b>	-25° C -10% +120° C +10%
<b>Voltage source</b>	18 - 28 VDC
<b>Current regulating diode</b>	2 - 10 mA
<b>Electrical noise, equiv g:</b>	
Broadband 2.5 Hz to 25 kHz	700 $\mu$ g
Spectral 10 Hz	10 $\mu$ g/ $\sqrt$ Hz
100 Hz	5 $\mu$ g/ $\sqrt$ Hz
1000 Hz	5 $\mu$ g/ $\sqrt$ Hz
<b>Output impedance, max</b>	100 $\Omega$
<b>Bias output voltage</b>	12 VDC
<b>Grounding</b>	case isolated, internally shielded
<b>Temperature range</b>	-50 to +120° C
<b>Vibration limit</b>	500 g peak
<b>Shock limit, min</b>	5,000 g peak
<b>Electromagnetic sensitivity, equiv g, max</b>	70 $\mu$ g/gauss
<b>Sealing</b>	hermetic
<b>Base strain sensitivity, max</b>	0.002 g/ $\mu$ strain
<b>Sensing element design</b>	PZT ceramic / shear
<b>Weight</b>	145 grams
<b>Case material</b>	316L stainless steel
<b>Mounting</b>	1/4-28 captive hex head screw with 0.046" diameter safety wire hole
<b>Output connector</b>	2 pin, MIL-C-5015 style
<b>Mating connector</b>	R6 type
<b>Recommended cabling</b>	J10 / J9T2A

### Contact

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### Accessories supplied:

- 1/4-28 captive hex head screw
- Calibration data (level 2)

### Optional accessories available:

ISBS-STD-01: MTL 728 + safety barrier  
ISBS-STD-08: MTL 7728 + safety barrier

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