

# Intrinsically safe certified accelerometer

## 786A-IS



### Key features

- Hazardous area certified - intrinsically safe
- Corrosion resistant
- Hermetically sealed
- Case isolated
- ESD-protected
- Reverse wiring protection
- Manufactured in an approved ISO 9001 facility

### Certifications



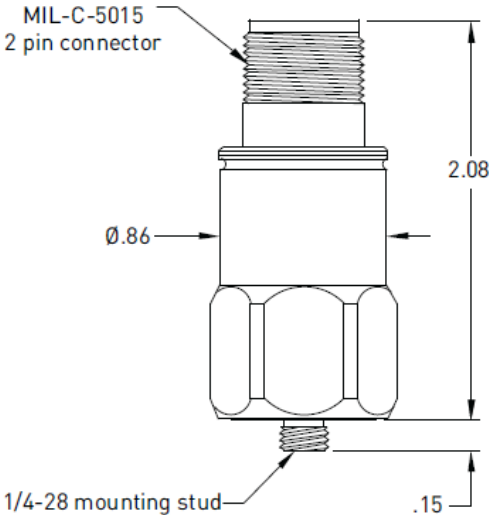
Class I, Div 1 Groups A, B, C, D  
 Class I, Div 1 Groups E, F, G  
 Class III, Div 1  
 Class I, Zone 0 Ex ia IIC T4  
 Class I, Zone 0 AEx ia IIC T4



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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.



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.

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### 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>	
$\pm 5\%$	3 - 5,000 Hz
$\pm 10\%$	1 - 9,000 Hz
$\pm 3$ dB	0.5 - 14,000 Hz
<b>Resonance frequency</b>	30 kHz
<b>Transverse sensitivity, max</b>	5% of axial
<b>Temperature response:</b>	
-50° C	-10%
+120° C	+10%
<b>Power requirement:</b>	
Voltage source	18 - 28 VDC
Current regulating diode	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
1,000 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</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>	0.0002 g/ $\mu$ strain
<b>Sensing element design</b>	PZT ceramic / shear
<b>Weight</b>	90 grams
<b>Case material</b>	316L stainless steel
<b>Mounting</b>	1/4 - 28 UNF tapped 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:

- Calibration data (level 2)
- SF6 mounting stud (international customers specify mounting requirements)

### Optional accessories available:

ISBS-STD-08: MTL 7728 + safety barrier

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