

# Class I Div 2 certified low-frequency accelerometer




## 787-500-D2

### SPECIFICATIONS

<b>Sensitivity, <math>\pm 5\%</math>, 25°C</b>		500 mV/g
<b>Acceleration range, VDC &gt; 22 V</b>		10 g peak
<b>Amplitude nonlinearity</b>		1%
<b>Frequency response<sup>1</sup>:</b>	<b><math>\pm 10\%</math></b>	0.5 - 5,000 Hz
	<b><math>\pm 3</math> dB</b>	0.2 - 10,000 Hz
<b>Resonance frequency</b>		22 kHz
<b>Transverse sensitivity, max</b>		5% of axial
<b>Temperature response:</b>	<b>-20°C</b>	-10%
	<b>+120°C</b>	+10%
<b>Power requirement:</b>	<b>Voltage source</b>	18 - 28 VDC
	<b>Current regulating diode</b>	2 - 10 mA
<b>Electrical noise, equiv. g<sup>1</sup>:</b>		
<b>Broadband</b>	<b>2.5 Hz to 25 kHz</b>	250 $\mu$ g
<b>Spectral</b>	<b>10 Hz</b>	2.5 $\mu$ g/ $\sqrt{\text{Hz}}$
	<b>100 Hz</b>	1.5 $\mu$ g/ $\sqrt{\text{Hz}}$
	<b>1,000 Hz</b>	1.5 $\mu$ g/ $\sqrt{\text{Hz}}$
<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>		0.0002 g/ $\mu$ strain
<b>Sensing element design</b>		PZT, shear
<b>Weight</b>		145 grams
<b>Case material</b>		316L stainless steel
<b>Mounting</b>		1/4-28 captive hex head screw, 0.046" diameter safety wire hole
<b>Output connector</b>		2 pin, MIL-C-5015 style
<b>Mating connector</b>		R6D2
<b>Recommended cabling</b>		J10 / J9T2A, <100 ft.

**Notes:** <sup>1</sup> Frequency response limits and spectral noise values are typical.  
**Accessories supplied:** 1/4-28 captive hex head screw; calibration data (level 2)

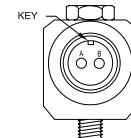
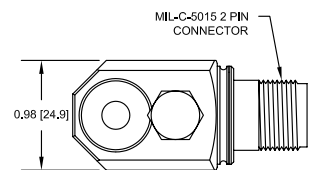
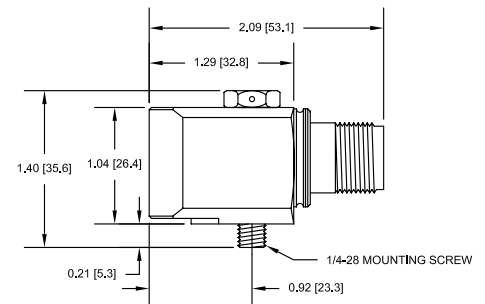
### Certifications

	Class I, Div 2 Groups A, B, C, D Class I, Zone 2 AEx/Ex nA II T4 Tamb: -50°C to 120°C		II 3 G Ex nA IIC T4 Gc Ta = 120°C	
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### Key features

- Class I, Div 2/Zone 2 certified - non-incendive
- 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.