

# Intrinsically safe dual output low-frequency sensor

## 786T-500-IS

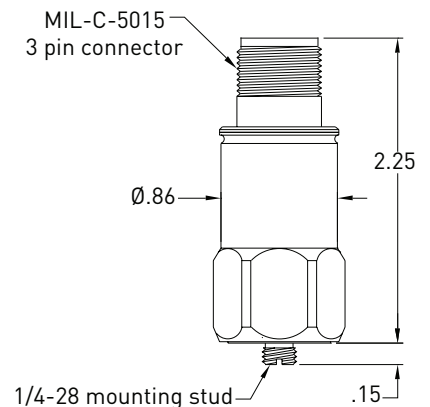
### SPECIFICATIONS

<b>Sensitivity, ±5%, 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>±5%</b>	0.7 - 5,000 Hz
	<b>±10%</b>	0.5 - 9,000 Hz
	<b>±3 dB</b>	0.2 - 14,000 Hz
<b>Resonance frequency</b>		30 kHz
<b>Transverse sensitivity, max</b>		5% of axial
<b>Temperature response:</b>	<b>-25°C</b>	-10%
	<b>+120°C</b>	+10%
<b>Temperature sensor:</b>		
<b>Output sensitivity</b>		10 mV/°C
<b>Measurement range</b>		2° to 120°C
<b>Power requirement:</b>		
<b>Voltage source</b>		18 - 30 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 µg
<b>Spectral</b>	<b>10 Hz</b>	2.5 µg/√Hz
	<b>100 Hz</b>	1.5 µg/√Hz
	<b>1,000 Hz</b>	1.5 µg/√Hz
<b>Output impedance, max</b>		300 Ω
<b>Bias output voltage, nominal</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 µg/gauss
<b>Sealing</b>		hermetic
<b>Base strain sensitivity, max</b>		0.0002 g/µstrain
<b>Sensing element design</b>		PZT, 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>		3 pin, MIL-C-5015 style
<b>Mating connector</b>		R6G
<b>Recommended cabling</b>		J9T3A






### Key features

- Accelerometer with internal temperature sensor
- Clear signals at low vibration levels
- Intrinsically safe certified
- Ideal for slow-speed machinery
- Manufactured in ISO 9001 facility



**Notes:** <sup>1</sup> Frequency response limits and spectral noise values are typical.  
**Accessories supplied:** SF6 mounting stud (metric mounting available); calibration data (level 2)

### Certifications

 <p>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</p>	 <p>II 1 G          Ex ia IIC T4 Ga          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.

Connections	
Function	Connector pin
accelerometer power/signal	A
accelerometer and temp sensor common	B
temp sensor signal	C
ground/case	shell

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