

Intrinsically safe dual output low-frequency sensor

786T-500-IS

SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25°C		500 mV/g
Acceleration range, VDC > 22 V		10 g peak
Amplitude nonlinearity		1%
Frequency response ¹ :	$\pm 5\%$	0.7 - 5,000 Hz
	$\pm 10\%$	0.5 - 9,000 Hz
	± 3 dB	0.2 - 14,000 Hz
Resonance frequency		30 kHz
Transverse sensitivity, max		5% of axial
Temperature response:	-25°C	-10%
	+120°C	+10%
Temperature sensor:		
Output sensitivity		10 mV/°C
Measurement range		2° to 120°C
Power requirement:		
Voltage source		18 - 30 VDC
Current regulating diode		2 - 10 mA
Electrical noise, equiv. g ¹ :		
Broadband	2.5 Hz to 25 kHz	250 μ g
	10 Hz	2.5 μ g/ $\sqrt{\text{Hz}}$
	100 Hz	1.5 μ g/ $\sqrt{\text{Hz}}$
	1,000 Hz	1.5 μ g/ $\sqrt{\text{Hz}}$
Output impedance, max		300 Ω
Bias output voltage, nominal		12 VDC
Grounding		case isolated, internally shielded
Temperature range		-50° to +120°C
Vibration limit		500 g peak
Shock limit		5,000 g peak
Electromagnetic sensitivity, equiv. g, max		70 μ g/gauss
Sealing		hermetic
Base strain sensitivity, max		0.0002 g/ μ strain
Sensing element design		PZT, shear
Weight		90 grams
Case material		316L stainless steel
Mounting		1/4-28 UNF tapped hole
Output connector		3 pin, MIL-C-5015 style
Mating connector		R6G
Recommended cabling		J9T3A

Certifications

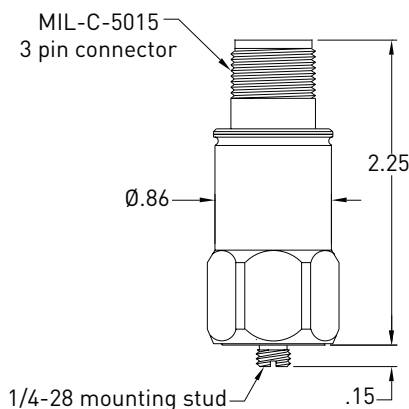
	Class I, Div 1 Groups A, B, C, D		II 1 G	
	Class II, Div 1 Groups E, F, G		Ex ia IIC T4 Ga	
	Class III		Ta = -50°C to 120°C	
	Class I Zone 0 AEx/Ex ia IIC T4			
	Ta = -50°C to 120°C	 		

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.



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: ¹ Frequency response limits and spectral noise values are typical.

Accessories supplied: SF6 mounting stud (metric mounting available); calibration data (level 2)

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.