

Intrinsically safe general purpose dual output sensor

787T-IS

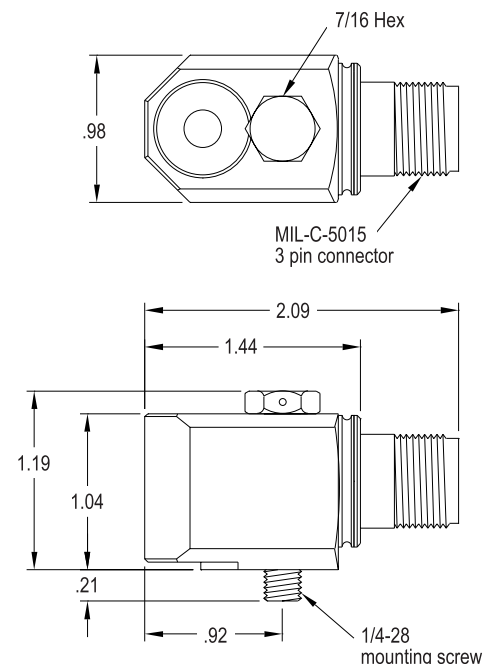
SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25°C		100 mV/g
Acceleration range, VDC > 25 V		80 g peak
Amplitude nonlinearity		1%
Frequency response:	10% ± 3 dB	1.0 - 5,000 Hz 0.5 - 10,000 Hz
Resonance frequency		22 kHz
Transverse sensitivity, max		5% of axial
Temperature response:	-25°C +120°C	-10% +10%
Temperature sensor:		
Output sensitivity		10 mV/°C
Measurement range		2° to 120°C
Power requirement:		
Voltage source ¹		18 - 30 VDC
Current regulating diode ^{1,2}		2 - 10 mA
Electrical noise, equiv. g, nominal:		
Broadband	2.5 Hz to 25 kHz	700 μ g
Spectral	10 Hz	10 μ g/ $\sqrt{\text{Hz}}$
	100 Hz	5 μ g/ $\sqrt{\text{Hz}}$
	1,000 Hz	5 μ g/ $\sqrt{\text{Hz}}$
Output impedance, max		100 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		0.002 g/ μ strain
Sensing element design		PZT ceramic / shear
Weight		145 grams
Case material		316L stainless steel
Mounting		1/4-28 captive screw w/ 0.046" diameter safety wire hole
Output connector		3 pin, MIL-C-5015 style
Mating connector		3 socket, MIL-C-5015 style (R6G)
Recommended cabling		3 conductor, shielded



Key features

- Accelerometer with internal temperature sensor
- Manufactured in ISO 9001 facility



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

Notes: ¹ To minimize the possibility of signal distortion during high vibration signals, 24 to 28 VDC powering is recommended. The higher level constant current source should be used when driving long cables.
² A maximum current of 6 mA is recommended for operating temperatures in excess of 100°C.
Accessories supplied: 1/4-28 captive screw; calibration data (level 2)

Certifications

	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	II 1 G Ex ia IIC T4 Ga Ta = -50°C to 120°C	

Must be installed per document 12880. 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.

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