

Intrinsically safe accelerometer

787A-M8-IS

SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25°C	100 mV/g
Acceleration range	80 g peak
Amplitude nonlinearity	1%
Frequency response:	$\pm 10\%$ 1.0 - 5,000 Hz $\pm 3\text{ dB}$ 0.5 - 10,000 Hz
Resonance frequency, mounted, min.	22 kHz
Transverse sensitivity, max	5% of axial
Temperature response:	-55°C -20% $+120^\circ\text{C}$ $+10\%$
Power requirement:	
Voltage source	18 - 28 VDC
Current regulating diode	2 - 10 mA
Electrical noise, equiv. g, nominal:	
Broadband 2.5 Hz to 25 kHz	700 μg
Spectral 10 Hz	10 $\mu\text{g}/\sqrt{\text{Hz}}$
100 Hz	5 $\mu\text{g}/\sqrt{\text{Hz}}$
1,000 Hz	5 $\mu\text{g}/\sqrt{\text{Hz}}$
Output impedance, max	100 Ω
Bias output voltage, nominal	12 VDC
Grounding	case isolated, internally shielded
Temperature range	-55° to $+120^\circ\text{C}$
Vibration limit	500 g peak
Shock limit, min	5,000 g peak
Electromagnetic sensitivity, equiv. g, max	70 $\mu\text{g}/\text{gauss}$
Sealing	hermetic
Base strain sensitivity, max	0.002 g/ μstrain
Weight	145 grams
Case material	316L stainless steel
Mounting	M8 captive hex head screw with 0.046" diameter safety wire hole
Output connector	2 pin, MIL-C-5015 style
Mating connector	R6 type
Recommended cabling	J10 / J9T2A

Accessories supplied: SCM8125 captive hex head screw; calibration data

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



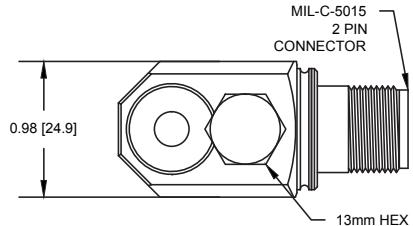
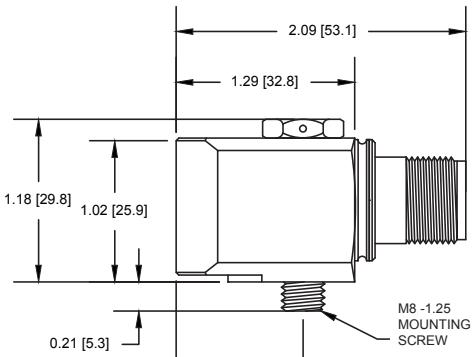
II 1 G
Ex ia IIC T4 Ga
Ta = -50°C to 120°C



Must be installed per document 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 $+80^\circ\text{C}$.

Key features

- Hazardous area certified - intrinsically safe
- API 670 compliant
- Manufactured in ISO 9001 facility



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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