

# Class I Div 2 certified low-frequency accelerometer

## 786-500-M12-D2




### SPECIFICATIONS

Sensitivity, $\pm 5\%$ , 25°C		500 mV/g
Acceleration range, VDC > 22 V		10 g peak
Amplitude nonlinearity		1%
Frequency response <sup>1</sup> :	$\pm 5\%$	0.7 - 5,000 Hz
	$\pm 10\%$	0.5 - 5,000 Hz
	$\pm 3$ dB	0.2 - 10,000 Hz
Resonance frequency		30 kHz
Transverse sensitivity, max		5% of axial
Temperature response:	-25°C	-10%
	+120°C	+10%
Power requirement:		
Voltage source		18 - 30 VDC
Current regulating diode		2 - 10 mA
Electrical noise, equiv. g <sup>1</sup> :		
Broadband	2.5 Hz to 25 kHz	250 $\mu$ g
	10 Hz	2.5 $\mu$ g/ $\sqrt{\text{Hz}}$
	100 Hz	1.5 $\mu$ g/ $\sqrt{\text{Hz}}$
	1,000 Hz	1.5 $\mu$ g/ $\sqrt{\text{Hz}}$
Spectral		
Output impedance, max		100 $\Omega$
Bias output voltage		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 $\mu$ g/gauss
Sealing		hermetic
Base strain sensitivity, max		0.0002 g/ $\mu$ strain
Sensing element design		PZT, shear
Weight		90 grams
Case material		316L stainless steel
Mounting		1/4-28 UNF tapped hole
Output connector		M12 style, 4 pin

**Notes:** <sup>1</sup> Frequency response limits and spectral noise values are typical.

**Accessories supplied:** SF6M mounting stud; calibration data (level 2)

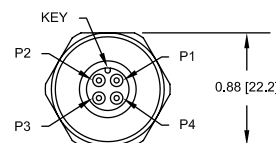
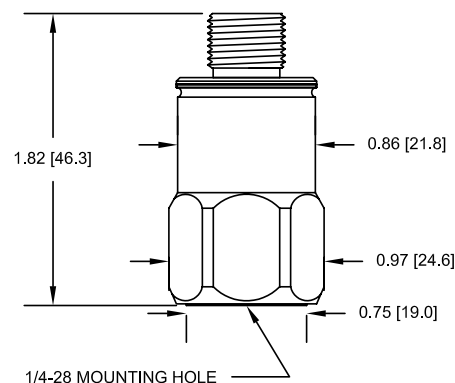
### Certifications

	Class I, Div 2 Groups A, B, C, D		II 3 G	
	Class I, Zone 2		Ex nA IIC T4 Gc	
AEx/Ex nA II T4				
Tamb: -50°C to 120°C				
Must be installed per 13029. • Ambient temperature range depends on the type cable used during installation. • Cable with FEP jacket, Ta=-50°C to +120°C. • Cable with Santoprene jacket, Ta=-45°C to +115°C.				



### 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	1
common	2
N/C	3
N/C	4
ground	shell

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