

General purpose accelerometer 786B-10

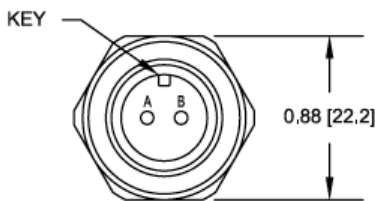


Wilcoxon's top-exit 100 mV/g, $\pm 10\%$ sensitivity tolerance broadband sensor provides long-lasting reliability at an economical price. The general purpose accelerometer is able to monitor machine vibration on a wide range of rotating equipment such as motors, pumps, fans, compressors, turbines and generators. 316L stainless steel casing provides rugged durability for most extreme environments. The sensing element is housed in a case-isolated Faraday shield, providing maximum protection from ground loops and RF interference. Mating the 786B-10 with Wilcoxon's IP67 rated 2-pin MIL-5015 connector provides an ideal combination for online or permanent mount monitoring systems. Additional accessories are available including mounting pads, enclosures and portable vibration sources.

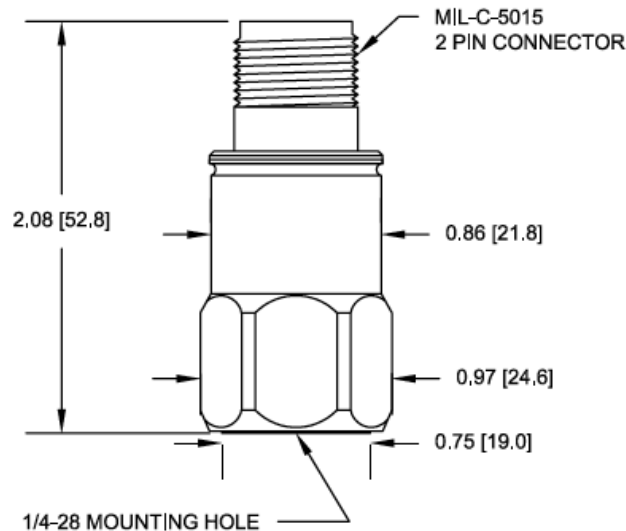
Key features

- Case isolated
- Hermetically sealed
- ESD-protected
- EMI/RFI shielded
- Reverse wiring protection
- Manufactured in an approved ISO 9001 facility

Certifications



Connections	
Function	Connector pin
power/signal	A
ground	B
common	shell



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

Wilcoxon Sensing Technologies
20511 Seneca Meadows Parkway
Germantown, MD 20876
info@wilcoxon.com

Tel: (301) 330 8811
Fax: (301) 330 8873
www.wilcoxon.com

Wilcoxon Sensing Technologies
An Amphenol Company

General purpose accelerometer 786B-10

SPECIFICATIONS

		English	Metric
Sensitivity, $\pm 10\%$, 25° C		100 mV/g	10.2 mV/m/sec ²
Acceleration range, VDC > 25 V		80 g peak	784 m/sec ²
Amplitude nonlinearity		1%	1%
Frequency response	$\pm 5\%$	180 - 300,000 CPM	3 - 5,000 Hz
	$\pm 10\%$	60 - 540,000 CPM	1 - 9,000 Hz
	± 3 dB	30 - 840,000 CPM	0.5 - 14,000 Hz
Resonance frequency		1.80 kCPM	30 kHz
Transverse sensitivity, max		5% of axial	5% of axial
Temperature response	-25° C	-10%	-10%
	+120° C	+10%	+10%
Voltage source		18 - 30 VDC	18 - 30 VDC
Current regulating diode		2 - 10 mA	2 - 10 mA
Electrical noise, equiv. g:			
Broadband	2.5 Hz to 25 kHz	700 μ g	6.9×10^{-3} m/sec ²
Spectral	10 Hz	10 μ g/ $\sqrt{\text{Hz}}$	9.8×10^{-5} m/sec ² / $\sqrt{\text{Hz}}$
	100 Hz	5 μ g/ $\sqrt{\text{Hz}}$	4.9×10^{-5} m/sec ² / $\sqrt{\text{Hz}}$
	1,000 Hz	5 μ g/ $\sqrt{\text{Hz}}$	4.9×10^{-5} m/sec ² / $\sqrt{\text{Hz}}$
Output impedance		100 Ω	100 Ω
Bias output voltage		12 VDC	12 VDC
Grounding		case isolated, internally shielded	
Temperature range		-58 to +248° F	-50 to +120° C
Vibration limit		500 g peak	4,900 m/sec ² peak
Shock limit		5,000 g peak	49,000 m/sec ² peak
Electromagnetic sensitivity, equiv. g, max		70 μ g/gauss	6.9×10^{-4} m/sec ² /gauss
Sealing		hermetic	
Base strain sensitivity, max		0.0002 g/ μ strain	1.9×10^{-3} m/sec ² / μ strain
Sensing element design		PZT, shear	
Weight		3.17 oz	90 grams
Case material		316L stainless steel	
Mounting		1/4-28 UNF tapped hole	
Mating connector		MIL-5015 style	
Recommended cabling		J10 / J9T2A	

Contact

Wilcoxon Sensing
Technologies

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Germantown MD 20876, USA

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Fax: +1 301 330 8873

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Accessories supplied:

- Calibration data (level 2)
- SF6 mounting stud (metric mounting available)

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