

General purpose, compact accelerometer 780A

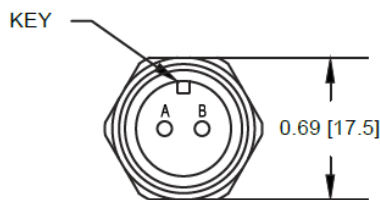


Wilcoxon's top-exit 100 mV/g sensor is designed for monitoring areas with limited space. The general purpose accelerometer is ideal for monitoring machine vibration on a wide range of rotating equipment such as motors, pumps, fans, compressors, turbines and generators. A 316L stainless steel casing provides rugged durability for most extreme environments. The sensing element is housed in a case-isolated Faraday shield, providing maximum protection against ground loops and RF interference.

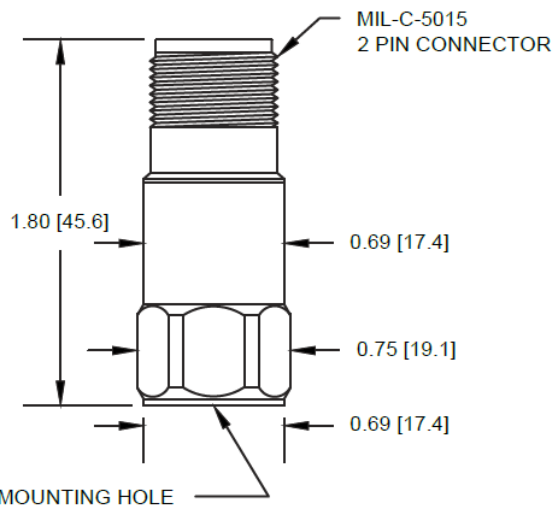
Key features

- Lightweight for walkaround programs
- Prevents ground loops in permanent mount applications with proper cabling
- Can be submersed with proper connector
- Hermetically sealed
- ESD protected
- Reverse wiring protection
- Manufactured in an approved ISO 9001 facility

Certifications



Connections	
Function	Connector pin
power/signal	A
common	B
ground	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, compact accelerometer 780A

SPECIFICATIONS

	English	Metric
Sensitivity, ±5%, 25° C	100 mV/g	9.8 mV/m/sec ²
Acceleration range	80 g peak	784 m/sec ²
Amplitude nonlinearity	1%	1%
Frequency response:		
± 5%	180 - 300,000 RPM	3 - 5,000 Hz
± 10%	60 - 540,000 RPM	1 - 9,000 Hz
± 3 dB	30 - 840,000 RPM	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%
Power requirement:		
Voltage source	18 - 30 VDC	18 - 30 VDC
Current regulating diode	2 - 10 mA	2 - 10 mA
Electrical noise, equiv. g, nominal:		
Broadband 2.5 Hz to 25 kHz	700 µg	6.9 x 10 ⁻³ m/s ²
Spectral 10 Hz	10 µg/√Hz	9.8 x 10 ⁻⁵ m/s ²
100 Hz	5 µg/√Hz	4.9 x 10 ⁻⁵ m/s ²
1,000 Hz	5 µg/√Hz	4.9 x 10 ⁻⁵ m/s ²
Output impedance, max	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 µg/gauss	6.8 x 10 ⁻⁴ m/s ² /gauss
Sealing	hermetic	
Base strain sensitivity, max	0.0002 g/µstrain	1.9 x 10 ⁻³ m/s ² /µstrain
Sensing element design	PZT, shear	
Weight	2.19 oz	62 grams
Case material	316L stainless steel	
Mounting	1/4-28 UNF tapped hole	
Output connector	2-pin, MIL-C-5015 style	
Mating connector	R6 type	
Recommended cabling	J10 / J9T2A	

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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

Note: Frequency response and spectral noise values are typical.