

Wilcoxon Research®

General purpose, compact accelerometer 780A

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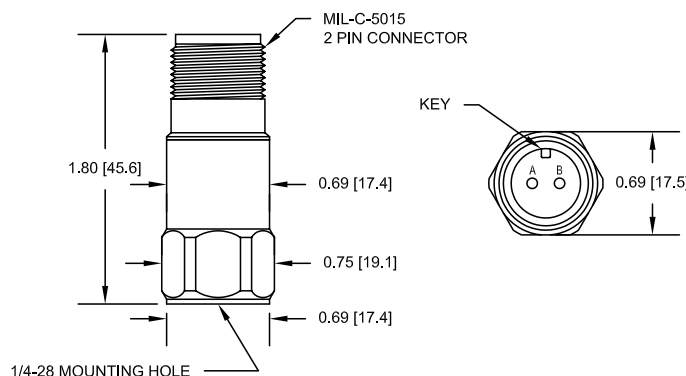


Key features

- 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 and AS9100 facility

The top-exit Wilcoxon Research® 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 from ground loops and RF interference.

Certifications



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

Meggitt Sensing Systems

Our energy product competencies and services

Machinery protection | Condition monitoring | Integrated performance monitoring | Partial discharge monitoring | Sensors for extreme environments
Ignition systems | Flame detection and analysis | **Industrial monitoring solutions** | Nuclear products

98957 Rev C 01/14

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Specifications

	English	Metric
Sensitivity, $\pm 5\%$, 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	$\pm 5\%$ 180 - 300,000 RPM	3 - 5,000 Hz
	$\pm 10\%$ 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%
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/s ²
Spectral		
10 Hz	10 μ g/VHz	9.8×10^{-5} m/s ²
100 Hz	5 μ g/VHz	4.9×10^{-5} m/s ²
1000 Hz	5 μ g/VHz	4.9×10^{-5} m/s ²
Output impedance, max	100 Ω	100 Ω
Bias output voltage	12 VDC	12 VDC
Grounding	case isolated, internally shielded	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	6.8×10^{-4} m/s ² /gauss
Sealing	hermetic	hermetic
Base strain sensitivity, max	0.0002 g/ μ strain	1.9×10^{-3} m/s ² / μ strain
Sensing element design	PZT, shear	PZT, shear
Weight	2.19 oz	62 g
Case material	316L stainless steel	316L stainless steel
Mounting	1/4-28 UNF tapped hole	1/4-28 UNF tapped hole
Output connector	2 pin, MIL-C-5015 style	2 pin, MIL-C-5015 style
Mating connector	R6 type	R6 type
Recommended cabling	J10/J9T2A	J10/J9T2A

Note: Frequency response and spectral noise values are typical

Accessories supplied: SF6 mounting stud, calibration data (level 2)

Note: Due to continuous process improvement, specifications are subject to change without notice.

This document is cleared for public release.

Contact

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