

Radiation resistant PiezoFET® accelerometer 797R

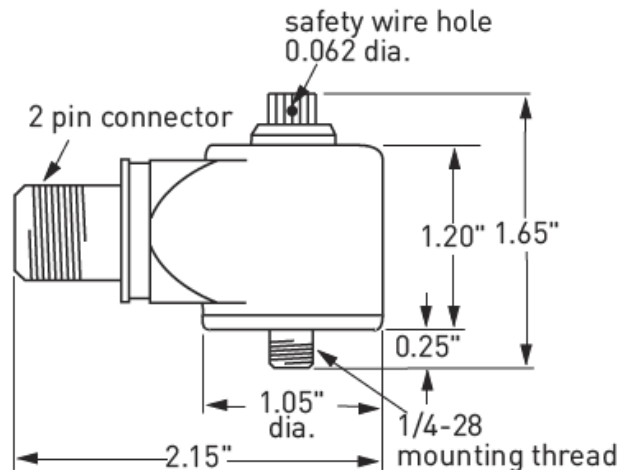


Nuclear power plants utilizing vibration monitoring ensure continuous power generation and safety for personnel and equipment, while also helping to prevent radiation leaks into the environment. Expensive and crucial machinery including cold water feed pumps, pressurized water reactors, and steam generators can operate more efficiently as a result of condition monitoring. Wilcoxon's radiation-hardened sensors meet specific requirements for reliability of monitoring equipment in nuclear environments. The side-exit 797R mounts in any orientation and can be exposed to 1×10^7 RADs without degradation of signal performance, making it ideal for nuclear environments.

Key features

- Rugged design
- Hermetically sealed
- ESD protected
- Reverse wiring protection
- Corrosion resistant
- Ground isolated
- Mounts in any condition
- Radiation rated
- Manufactured in an approved ISO 9001 facility

Certifications



Connections	
Function	Connector pin
power/signal	A
common	B

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

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Wilcoxon Sensing Technologies
An Amphenol Company

Radiation resistant PiezoFET® accelerometer 797R

SPECIFICATIONS

Sensitivity, ±5%, 25° C		100 mV/g
Acceleration range		50 g peak
Amplitude nonlinearity		1%
Frequency response:	± 5%	3 - 5,000 Hz
	± 10%	2 - 7,000 Hz
	± 3 dB	1 - 15,000 Hz
Resonance frequency		26 kHz
Transverse sensitivity, max		5% of axial
Temperature response:	-50° C	-5%
	+120° C	+5%
Voltage source		18 - 28 VDC
Current regulating diode		2 - 10 mA
Electrical noise, equiv. g:		
Broadband	2.5 Hz to 25 kHz	600 µg
Spectral	10 Hz	8 µg/√Hz
	100 Hz	5 µg/√Hz
	1,000 Hz	5 µg/√Hz
Output impedance, max		100 Ω
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		30 µg/gauss
Sealing		hermetic
Base strain sensitivity		0.002 g/µstrain
Radiation exposure limit		1 x 10 ⁷ RADs
Sensing element design		PZT / shear
Weight		135 grams
Case material		316L stainless steel
Mounting		1/4-28 captive socket head screw
Output connector		2 pin, MIL-C-5015 style
Mating connector		R6 type
Recommended cabling		J9T2

Contact

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Accessories supplied:

- Calibration data (level 3)
- #12105-01 captive socket head (metric mounting available)

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