

General purpose, hermetic triaxial accelerometer

993B-7-M12

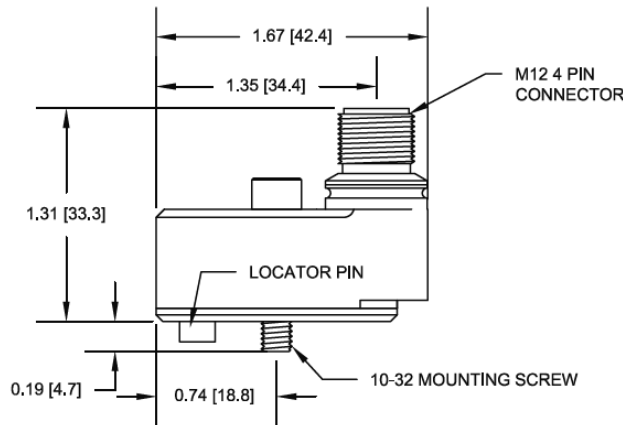
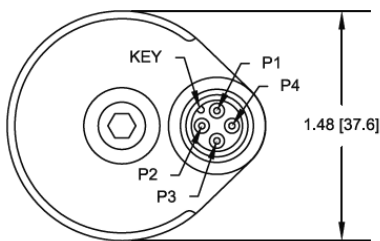


Triaxial accelerometers consist of three sensing elements within a single housing. Wilcoxon's 99B-7-M12 senses three mutually perpendicular axes at a single mounting location. Proponents of multi-axial sensors cite the increased speed of data collection, inherently consistent readings and reduction in wiring for permanent installations. Triaxial sensors monitor machinery with limited mounting areas, providing a full spectrum of data including horizontal, vertical and axial vibration levels at a single mounting location. The 993B-7-M12 is hermetically sealed and comes with the industry popular M12 connector.

Key features

- 3 axis simultaneous sensing
- Broad frequency response
- Captive mounting screw
- Hermetically sealed
- ESD-protected
- Reverse wiring protection
- Manufactured in an approved ISO 9001 facility

Certifications



Connections	
Function	Connector pin
X axis, power/signal	1
Y axis, power/signal	2
Z axis, power/signal	3
common (all channels)	4
ground	shell

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

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 An Amphenol Company

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SPECIFICATIONS

Sensitivity, $\pm 10\%$, 25° C	100 mV/g
Acceleration range	60 g peak
Amplitude nonlinearity	1%
Frequency response ¹ :	
Z axis, ± 3 dB	2 - 10,000 Hz
X and Y axes, ± 3 dB	2 - 7,000 Hz
Resonance frequency	>35 kHz
Transverse sensitivity, max	7% of axial
Temperature response:	
-50° C	-12%
+125° C	+12%
Power requirement:	
Voltage source	18 - 30 VDC
Current regulating diode	2 - 5 mA
Electrical noise, equiv. g, nominal:	
Broadband 2.5 Hz to 25 kHz	160 μ g
Spectral 10 Hz	10 μ g/ \sqrt Hz
100 Hz	2.0 μ g/ \sqrt Hz
1,000 Hz	1.5 μ g/ \sqrt Hz
Output impedance, max	400 Ω
Bias output voltage	12 VDC
Grounding	case isolated, internally shielded
Turn-on time	<1 sec
Temperature range	-50 to +120° C
Vibration limit	500 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv. g, max	100 μ g/gauss
Sealing	hermetic
Base strain sensitivity, max	0.0005 g/ μ strain
Weight (excluding cable)	124 grams
Case material	316L stainless steel
Mounting	10-32 captive screw
Output connector	4-pin, M12 style
Mating connector	M12S
Recommended cabling	4 conductor, shielded

Contact

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Accessories supplied:

- Calibration data
- Captive screw

Notes: ¹ As measured using the TCC-993 mounting screw.

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