

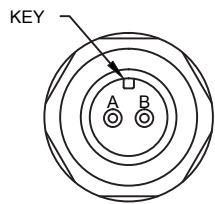
Piezoelectric velocity sensor

893V

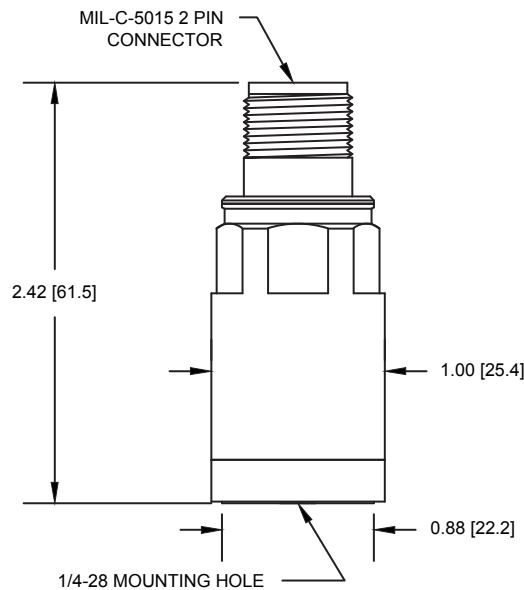
The 893V uses the industry standard 2-wire voltage transmission technique with a constant current supply. Thanks to the sensor's isolated ground and internal shield, no ground loops or frame voltages are present to disturb the measurement. The rugged sensor has a simpler design (fewer components) than typical velocity sensors, making it inherently reliable. Further, the 893V is housed in a hermetically sealed and corrosion resistant case, making the sensor suitable for use with machinery in harsh industrial environments.

Key features

- Ultra low-noise electronics for clear signals at very low vibration levels
- Tuned bandpass flatness for repeatability
- Eliminates distortion caused by high frequency signals
- Hermetically sealed
- Manufactured in an approved ISO 9001 facility



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



Certifications



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

Piezoelectric velocity sensor

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SPECIFICATIONS

Sensitivity, $\pm 5\%$, 25° C	100 mV/in/sec
Velocity range	50 in/sec peak
Transverse sensitivity, max	5% of axial
Amplitude nonlinearity	2%
Frequency response	$\pm 10\%$ ± 3 dB
	6.0 - 2,500 Hz 4.5 - 5,000 Hz
Resonant frequency, nominal	15 kHz
Typical deviation	$\pm 5\%$ over operating temperature range
Electrical noise, equiv in/sec	
Broadband	2.5 Hz to 25 kHz
Spectral	10 Hz
	100 Hz
	1000 Hz
	150 μ in/sec 25 μ in/sec/ $\sqrt{\text{Hz}}$ 1.5 μ in/sec/ $\sqrt{\text{Hz}}$ 1.0 μ in/sec/ $\sqrt{\text{Hz}}$
Input supply current	2 - 10 mA
Supply voltage for current source	22 - 28 VDC
Output impedance, max	80 Ω
Bias output voltage, nominal	12 VDC
Grounding	case isolated, internally shielded
Reversed polarity	protected
Temperature range	-50 to +120° C
Vibration limit	2,500 g peak
Shock limit, max	5,000 g peak
Electromagnetic sensitivity, equiv in/sec	50 μ in/sec/gauss
Sealing	hermetic
Base strain sensitivity, max	0.005 in/sec/ μ strain
Weight	145 grams
Case material	316L stainless steel
Mounting	1/4-28 UNF tapped hole
Output connector	2 pin, MIL-C-5015 style
Mating connector	MIL-C-5015 style
Recommended cabling	shielded twisted pair

Contact

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Accessories supplied:

- 1/4-28 UNF to M8 adaptor stud
- Calibration data

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