

Wilcoxon Research®

Piezoelectric velocity sensor 893V

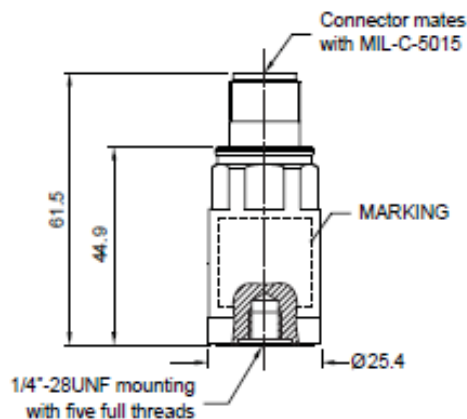


The 893V uses the industry standard 2-wire voltage transmission technique with a constant current supply. Thanks to the sensor's isolated ground and internal shield, no ground loops or frame voltages are present to disturb the measurement. The sensor is a rugged device with a simpler design (fewer components) 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.

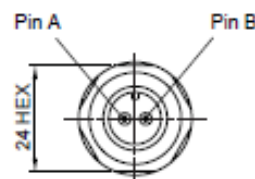
Key features

- 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 and AS9100 facility

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

99200 Rev A 6/14

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Wilcoxon Research®

Piezoelectric velocity sensor

893V

Specifications

Sensitivity, +25° C, ±5%	100 mV/in/sec
Velocity range	50 in/sec peak
Transverse sensitivity, max	5% of axial
Amplitude nonlinearity	2%
Frequency response	±10% 6.0 - 2,500 Hz ±3 dB 4.5 - 5,000 Hz
Resonant frequency, nominal	15 kHz
Typical deviation	±5% over operating temperature range
Electrical noise, equiv g	
Broadband 2.5 Hz to 25 kHz	150 µin/sec
Spectral	
10 Hz	25 µin/sec/√Hz
100 Hz	1.5 µin/sec/√Hz
1000 Hz	1.0 µin/sec/√Hz
Input supply current	2 - 10 mA
Supply voltage for current source	22 - 28 VDC
Bias output voltage, nominal	12 VDC
Output impedance, max	80 Ω
Grounding	case isolated, internally shielded
Reversed polarity	protected
Temperature range	-50 to +120° C
Vibration limit	250 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv in/sec	50 µin/sec/gauss
Sealing	hermetic
Base strain sensitivity, max	0.005 in/sec/µstrain
Weight	145 g
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

Accessories supplied: 1/4-28 UNF stud, 1/4-28 UNF to M8 adaptor stud; calibration data

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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