

# Piezovelocity transducers

## 793V series

### SPECIFICATIONS

	793V	793V-5
<b>Sensitivity, <math>\pm 10\%</math><sup>1</sup>, 25°C</b>	100 mV/in/sec	500 mV/in/sec
<b>Velocity range</b>	50 in/sec peak	10 in/sec peak
<b>Amplitude nonlinearity</b>	2.5%	5%
<b>Frequency response:</b>		
<b><math>\pm 10\%</math></b>	3.0 - 3,500 Hz	8.0 - 3,500 Hz
<b><math>\pm 3</math> dB</b>	2.5 - 7,000 Hz	5.0 - 7,000 Hz
<b>Resonance frequency, mounted, nominal</b>	15 kHz	15 kHz
<b>Transverse sensitivity, max</b>	5% of axial	5% of axial
<b>Temperature response:</b>		
<b>-50°C</b>	-5%	-5%
<b>+80°C</b>	+3%	+3%
<b>+120°C</b>	-5%	-5%
<b>Power requirement:</b>		
<b>Voltage source</b>	18 - 30 VDC	18 - 30 VDC
<b>Current regulating diode</b>	2 - 10 mA	2 - 10 mA
<b>Electrical noise, equiv. in/sec, nominal:</b>		
<b>Broadband 2.5 Hz to 25 kHz</b>	100 $\mu$ in/sec	40 $\mu$ in/sec
<b>Spectral 10 Hz</b>	10 $\mu$ in/sec/ $\sqrt$ Hz	4.0 $\mu$ in/sec/ $\sqrt$ Hz
<b>100 Hz</b>	1.0 $\mu$ in/sec/ $\sqrt$ Hz	0.4 $\mu$ in/sec/ $\sqrt$ Hz
<b>1,000 Hz</b>	0.2 $\mu$ in/sec/ $\sqrt$ Hz	0.05 $\mu$ in/sec/ $\sqrt$ Hz
<b>Output impedance, nominal 4 mA supply</b>	200 $\Omega$	200 $\Omega$
<b>Bias output voltage, nominal</b>	10 VDC	10 VDC
<b>Grounding</b>	case isolated, internally shielded	
<b>Temperature range</b>	-50° to +120°C	-50° to +120°C
<b>Vibration limit</b>	250 g peak	250 g peak
<b>Shock limit</b>	5,000 g peak	2,500 g peak
<b>Electromagnetic sensitivity, equiv. in/sec</b>	25 $\mu$ in/sec/gauss	25 $\mu$ in/sec/gauss
<b>Sealing</b>	hermetic	hermetic
<b>Base strain sensitivity</b>	0.0005 in/sec/ $\mu$ strain	0.0005 in/sec/ $\mu$ strain
<b>Weight</b>	145 grams	145 grams
<b>Case material</b>	316L stainless steel	316L stainless steel
<b>Mounting</b>	1/4-28 tapped hole	1/4-28 tapped hole
<b>Output connector</b>	2 pin, MIL-C-5015	2 pin, MIL-C-5015
<b>Mating connector</b>	R6	R6
<b>Recommended cabling</b>	J9T2	J9T2

**Notes:** <sup>1</sup> For a 100 mV/in/sec sensor with  $\pm 5\%$  sensitivity tolerance, order model 793V100-5.

**Accessories supplied:** SF6 mounting stud (metric mounting available); calibration data (level 3)

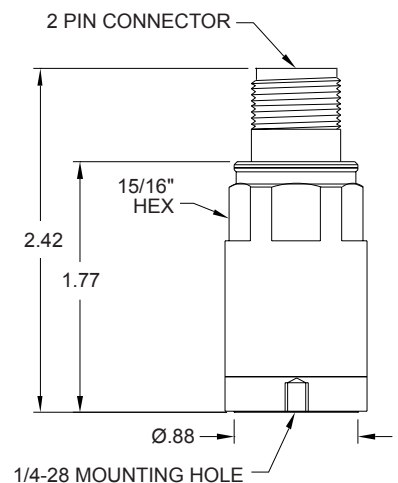
### Certifications

All 793V models	793VE	793V-33	793V-35
	Class I, II, III, T4 Div 1 Groups C, D, E, F, G Div 2 Groups A, B, C, D, F, G	Class I, Div 1 Groups A, B, C, D	II 1 G Ex ia IIA T4 Ga Tamb: -50°C to 120°C



### Key features

- Intrinsically safe and radiation resistant options available for model 793V
- Available with  $\pm 5\%$  sensitivity tolerance
- Manufactured in an ISO 9001 certified facility



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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