

# Piezovelocity transducers

## 793V series

### SPECIFICATIONS

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

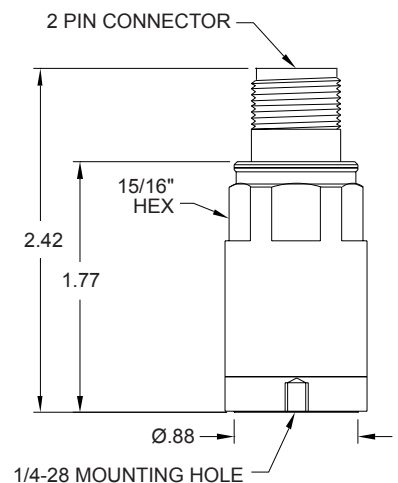
### Certifications

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.