# Radiation resistant piezoelectric velocity transducer

793VR



## **Key features**

- Rugged design
- Eliminates distortion caused by high frequency signals
- Corrosion resistant
- ESD protection
- Internally integrated to velocity
- Ultra low-noise electronics for clear signals at very low vibration levels
- · Ground isolated
- Hermetically sealed
- Miswiring protection
- Radiation rated

## Certifications



1			
R	WIL	SEA	XO
- 10	DEL N:M00		3VR
100 n	nV/in/se	c NC	M.

Connections			
Function	Connector pin		
power/signal	Α		
common	В		

2.42" (61.49 mm)		15/16" HEX  1.78" [45.21 mm]
	1.0" -> (25.4 mm)	1/4-28 MOUNTING HOLE

2 PIN CONNECTOR

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

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# Radiation resistant piezoelectric velocity transducer

## 793VR

## **SPECIFICATIONS**

Sensitivity, ±10%, 25° C		100 mV/in/sec	
Velocity range		50 in/sec peak	
Amplitude nonlinearity		2.5%	
Frequency response:	± 10% ± 3 dB	2.5 - 3,500 Hz 2.0 - 7,000 Hz	
Resonance frequency, mou	nted, nominal	15 kHz	
Transverse sensitivity, max		5% of axial	
Temperature response:	−50° C +120° C	–5% +5%	
Power requirement: Voltage source Current regulating diode <sup>1</sup>		18 - 30 VDC 2 - 10 mA	
Electrical noise, equiv. g, no Broadband 2.5 Spectral	ominal: Hz to 25 kHz 10 Hz 100 Hz 1,000 Hz	100 µin/sec 10 µin/sec/√Hz 1.0 µin/sec/√Hz 0.2 µin/sec/√Hz	
Output impedance, nominal	4 mA supply,	5,000/1	
the greater of:		5,000/f or 20 Ω	
Bias output voltage, nomina	al	10 VDC	
Grounding		case isolated, internally shielded	
Temperature range		–50 to +120° C	
Vibration limit		250 g peak	
Shock limit		5,000 g peak	
Electromagnetic sensitivity, equiv. in/sec		25 μin/sec/gauss	
Base strain sensitivity		0.001 in/sec/µstrain	
Radiation exposure limit		1 x 10 <sup>7</sup> RADs	
Weight		133 grams	
Case material		stainless steel	
Mounting		1/4-28 tapped hole	
Output connector		2 pin, MIL-C-5015 style	
Mating connector		R6, R6QN	
Recommended cabling		J9T2	

### Contact

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### Accessories supplied:

- Calibration data
- SF6 mounting stud

#### Accessories available:

R6SL series cable assembly, magnetic mounting bases, cementing studs, power supplies, amplifiers, signal conditioners

**Notes:** <sup>1</sup> A maximum current of 6 mA is recommended for operating temperatures in excess of 100° C.

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