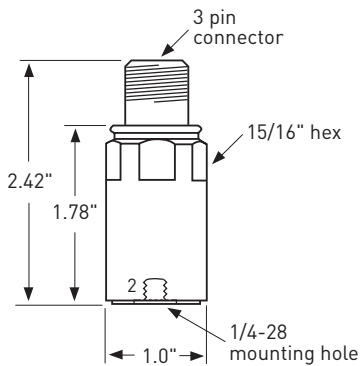




Wilcoxon Research model 793VR Radiation resistant piezoelectric velocity transducer

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
- Corrosion-resistant
- Ground isolated
- Hermetic seal
- Miswiring protection
- Radiation rated



Dynamic

Sensitivity, $\pm 10\%$, 25° C.....	100 mV/in/sec
Velocity range.....	50 in/sec/peak
Amplitude nonlinearity.....	2.5%
Frequency response:	
$\pm 10\%$	2.5 - 3500 Hz
$\pm 3\text{ dB}$	2.0 - 7000 Hz
Resonance frequency, mounted, nominal.....	15 kHz
Transverse sensitivity, max.....	5% of axial
Temperature response:	
-50° C.....	-5%
+120° C.....	+5%

Electrical

Power requirement:	
Voltage source	18 - 30 VDC
Current regulating diode ¹	2 - 10 mA
Electrical noise, equiv. g, nominal:	
Broadband 2.5 Hz to 25 kHz	100 $\mu\text{in/sec}$
Spectral	
10 Hz	10 $\mu\text{in/sec/}\sqrt{\text{Hz}}$
100 Hz	1.0 $\mu\text{in/sec/}\sqrt{\text{Hz}}$
1000 Hz	0.2 $\mu\text{in/sec/}\sqrt{\text{Hz}}$
Output impedance, nominal	
4 mA supply, the greater of	5000/f or 20 Ω
Bias output voltage, nominal.....	10 VDC
Grounding.....	case isolated, internally shielded

Environmental

Temperature range	-50 to 120° C
Vibration limit.....	250 g peak
Shock limit	5,000 g peak
Electromagnetic sensitivity, equiv. g.....	25 $\mu\text{in/sec/gauss}$
Base strain sensitivity.....	0.001 in/sec/ μstrain
Radiation exposure limit.....	1x10 ⁷ RADS

Physical

Weight.....	133 g
Case material	stainless steel
Mounting.....	1/4-28 tapped hole
Output connector.....	MIL-C-5015 style, 2 pin
Mating connector.....	R6, R6QN
Recommended cable.....	J9T2

Connections

Function	Connector pin
power/ signal	A
common	B

Accessories supplied: SF6 mounting stud; calibration data

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

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

Meggitt Sensing Systems
20511 Seneca Meadows Parkway
Germantown MD 20876
USA

Tel: 301 330 8811
Fax: 301 330 8873
Email: wilcoxon@meggitt.com

www.wilcoxon.com
www.meggitt.com

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