

## A/130/V, A/130/V-1 Triaxial Piezo-Tronic IEPE Accelerometer

10mV/g up to 500mV/g  $\pm 10\%$     41gm    Std Temp 125°C (185°C HT)

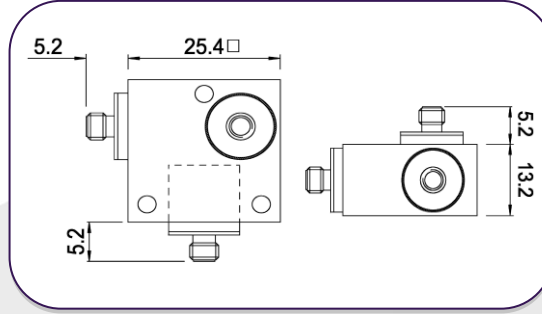


General purpose triaxial vibration transducer comprising three, Konic shear IEPE welded inserts, bonded orthogonally into hard anodized aluminum housing. The inserts are electrically insulated, individually and from the housing, thus eliminating ground loop interference. Low impedance O/P provides a high degree of noise immunity (80 db improvement vs. equiv, charge source device @ 50Hz) and allows use with low cost coaxial cable. The additional mechanical isolation implicit in the construction provides also near elimination of strain induced error.

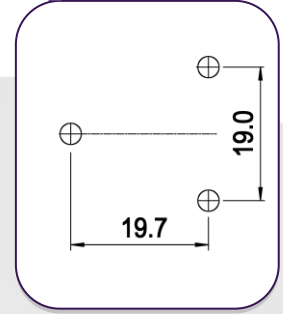
The d33 component suppression property of the Konic design, resulting in minimization of cross axis error, is particularly advantageous for three axis measurement integrity.

The multi sensor solution also offers the benefit of being repairable. If an insert is damaged it can usually be removed and replaced saving the cost of a new accelerometer.

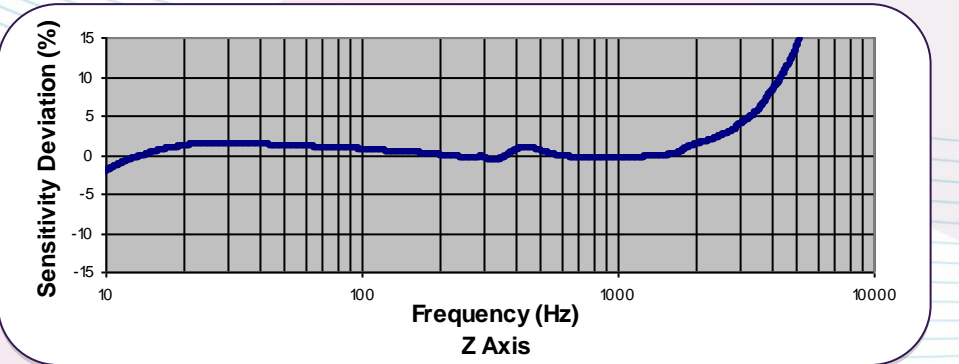
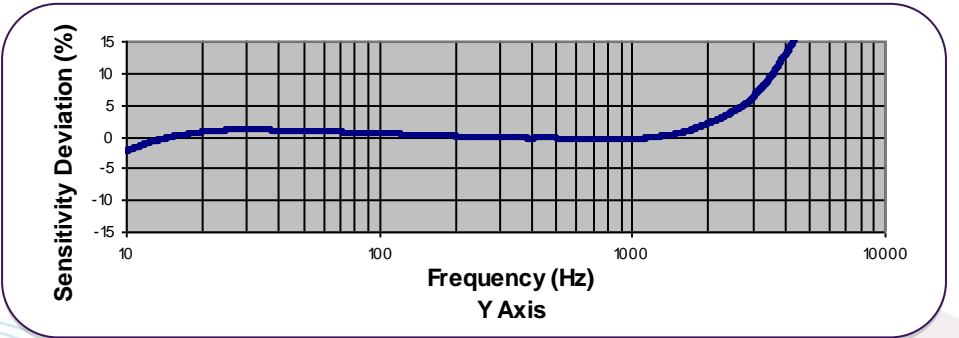
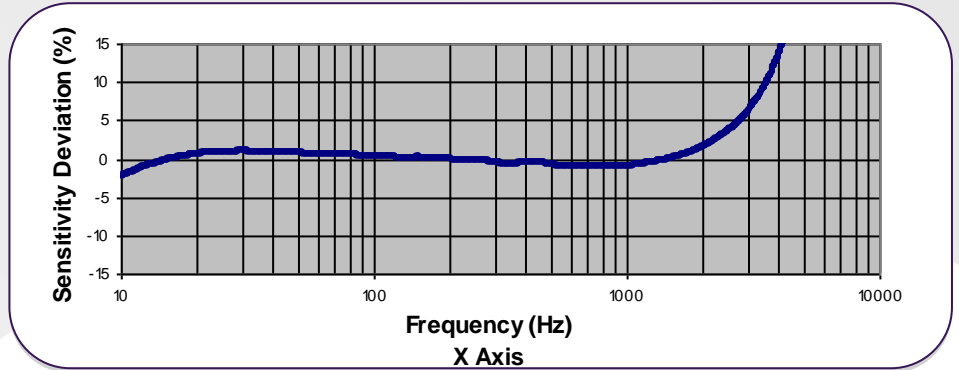
A/130/V



Fixing



### Typical Frequency Response



### Spectral Noise

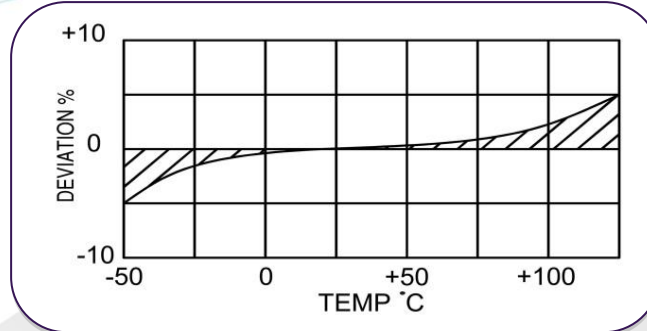
1Hz	761 $\mu\text{g}/\sqrt{\text{Hz}}$
10Hz	193 $\mu\text{g}/\sqrt{\text{Hz}}$
100Hz	37.8 $\mu\text{g}/\sqrt{\text{Hz}}$
1kHz	11.2 $\mu\text{g}/\sqrt{\text{Hz}}$
10kHz	4.2 $\mu\text{g}/\sqrt{\text{Hz}}$



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### Temperature Response



	Metric	Imperial
Voltage Sensitivity $\pm 10\%$	1.02 mV/(m/s <sup>2</sup> )    10.2 mV/(m/s <sup>2</sup> )	10 mV/g    100 mV/g
Resonant frequency kHz	X(13)    Y(13)    Z(15)	X(13)    Y(13)    Z(15)
Cross axis error % max	5	5
Temperature range	-50/ +185°C	-58/+365°F
Voltage sensitivity deviation re 20°C/68°F	-5% @-50°C +5% @+185°C	-5% @-58°F +5% @+365°F
Supply voltage V DC	15/35	15/35
Supply current mA	2/15	2/15
Bias voltage V DC 20°C/6°F)	9/10	9/10
Settling time to 90% final val. Secs	<1	<1
Max Continuous accn. sine	9,806m/s <sup>2</sup>	1000g
Saturation limit	4,903m/s <sup>2</sup> 490.3m/s <sup>2</sup>	500g    50g
Frequency Response $\pm 5\%$	10Hz - 3.5KHz	10Hz - 3.5KHz
L.F. Corner Frequency	0.06Hz (1.02mV/(m/s <sup>2</sup> )) 0.4Hz (10.2mV/(m/s <sup>2</sup> ))	0.06Hz (10mV/g) 0.4Hz (100mV/g)
Case/ Block Material	303 S31/ Aluminum	303 S31/ Aluminum
Case seal	Welded transducer inserts, bonded into hard anodized aluminum block	Welded transducer inserts, bonded into hard anodized aluminum block
Weight	41g	1.45oz
Connector	3 x 10-32 UNF Microdot	3 x 10-32 UNF Microdot
Size	25.4 x 25.4 x 13.2mm	1 x 1 x 0.52in
Mounting	Through hole A/130, Through hole & 3 x tapped base A/130/v-1	Through hole A/130, Through hole & 3 x tapped base A/130/v-1