

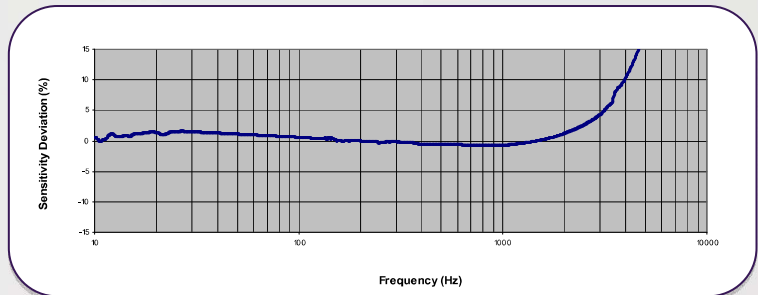
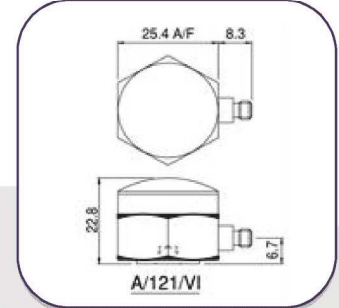
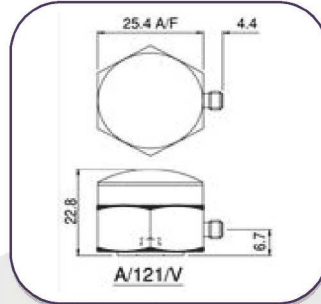


## A/121/V/ VI Piezo-tronic Voltage Accelerometer

100,316, 1000mV/g 90gm wt Std 125°C (HT 185°C)

High output KONIC vibration transducer. Integral two wire charge/voltage converter (QVC), and incorporating for A/121/VI a three pole band pass filter for noise rejection, case isolated signal outlet for common mode interference rejection. The band pass filter utilizes the inherent single pole high pass property of the QVC, but made application specific rather than maximized, combined with an R-C two pole passive low pass section inserted prior to the QVC. The LP section current limits the sensing element, hence reduces high frequency modulation products and consequent phantom low frequency signal generation.

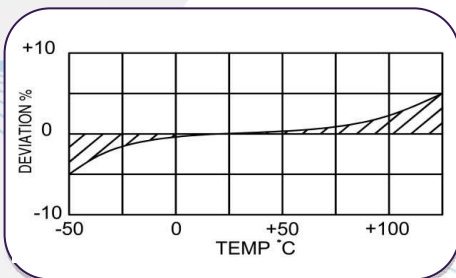
Noise level is a function of 3dB bandwidth B, approximating to  $e-no \times \sqrt{B1/Bo}$ , where B1 is the required bandwidth, e-no the noise level corresponding to bandwidth Bo as tabulated below. The band pass filter should be restricted to an upper frequency limit of 2 kHz, i.e. 2 octaves below mechanical, resonance otherwise the overall response will be resonance dominant.



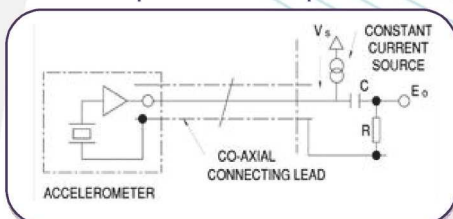
Typical Frequency Response

**Note:**

Voltage sensitivities shown are standard. We offer a wide range of sensitivities on request, and recommend that applications are evaluated to determine the requisite sensitivity.



Temperature Response



Conversion Mode	KONIC / 2 WIRE QVC		
Voltage Sensitivity	1 100	2 316	3 1000
Resonant frequency kHz	≈9		
Cross Axis error % max	5		
Temperature Range °C	-50/+185		
Voltage sensitivity deviation re 20 °C	-5% @ 50 +5% @ +125 +/-10% @ +185		
Supply voltage V	15/35		
Supply voltage mA	2/15		
Bias voltage v	8/10		
Settling time to 90% final val. secs	<1		
Max continuous accn. G sine	500		
Noise level, equiv. mg	2		
Frequency Response	1Hz-3KHz		
L.F corner frequency, Hz	0.1	0.35	1
Case material	St/ steel, 303 S31		
Mounting	Base tapped hole, 10-32 UNF x 4mm deep		
Weight gm	90		
Case seal	Welded hermetic connector (TNC)		