

A/120/VT Piezo-Tronic IEPE Accelerometer

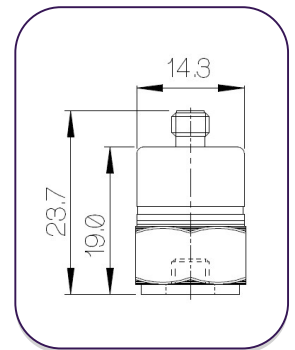
10mV/g up to 1V/g $\pm 10\%$ 12.9gm Std temp 125°C



The A/120 range of general purpose Konic shear IEPE vibration transducers offer a wide range of mounting, connectors and sensitivities all using DJB's unique and technically superior Konic shear design of piezoelectric ceramic sensor. Offering anything from 10mV/g up to 1V/g output within the same size accelerometer body it is perfectly suited to applications from vibration shaker control and delicate testing through to industrial machine monitoring.

Using a wide range of IEPE signal conditioning levels the A/120 can interface directly to a wide range of commercially available vibration spectrum analyzers and data acquisition systems as well as in our own CV9, VB/01 and VB/02 signal conditioners which offer a range of normalizing and amplification options.

A/120/VT



Note:

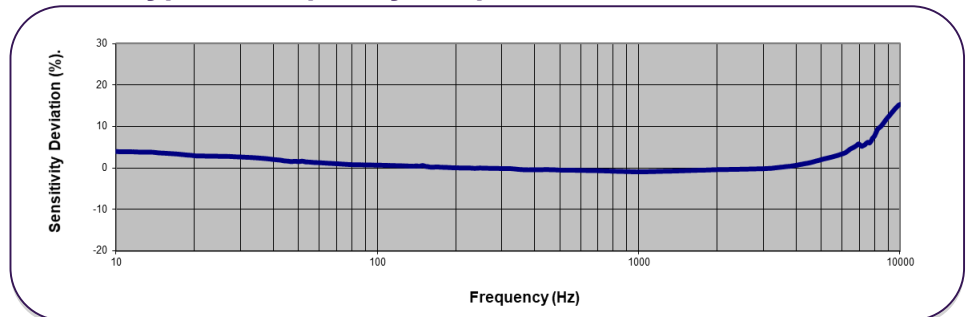
Voltage sensitivities shown are standard. We offer a wide range of sensitivities on request and recommend that applications are evaluated to determine the requisite sensitivity.

Options:

Cable assemblies available to any length and with any terminating connector.

- A/120/CR – Side entry
- A/120/V – Side entry
- A120VI – Side entry
- A120VT – Top entry
- A120VTC – Top entry
- A/120/VTI – Top entry

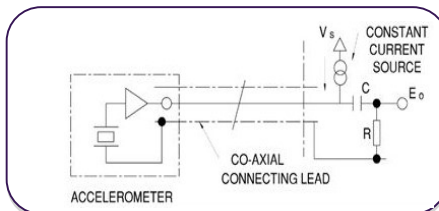
Typical Frequency Response



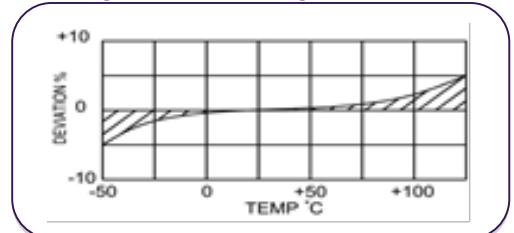
Typical Spectral Noise (100mV/g)

1Hz	978 $\mu\text{g}/\sqrt{\text{Hz}}$
10Hz	28.7 $\mu\text{g}/\sqrt{\text{Hz}}$
100Hz	8.92 $\mu\text{g}/\sqrt{\text{Hz}}$
1kHz	4.75 $\mu\text{g}/\sqrt{\text{Hz}}$
10kHz	3.99 $\mu\text{g}/\sqrt{\text{Hz}}$

Accelerometer Connection



Temperature Response



Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes

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	Metric		Imperial	
	Voltage Sensitivity $\pm 10\%$	1.0mV/(m/s ²)	10.2mV/(m/s ²)	10mV/g
Resonant frequency	≥ 34 kHz			
Typical Frequency Response	1Hz – 7kHz			
$\pm 5\%$	0.7Hz – 8kHz			
$\pm 10\%$				
Cross Axis error	$\leq 5\%$			
Temperature Range	-55/+125°C		-67/+257°F	
Voltage sensitivity deviation (20°C/68°F)	-5% @ -55°C +5% @ +125°C		-5% @ -67°F +5% @ +257°F	
Supply voltage	15/35 V DC			
Supply current	2/20mA			
Bias voltage	11/14 V DC			
Output Impedance	$\leq 100\Omega$			
Broadband resolution (grms)	0.005	0.003	0.005	0.003
Amplitude linearity (%FS)	$\leq 1\%$			
Settling time within 10% bias	<3 secs			
Discharge Time Coef.	1 to 3 Seconds			
Shock Limit	49,033m/s ²		5000g	
Saturation Limit, equiv .g	4903m/s ²	490m/s ²	500g	50g
Base Strain Sensitivity	$\leq 0.001g/\mu$ strain			
Case material	Titanium Grade 2			
Mounting	Base tapped hole, 10-32 UNF x 4mm deep		Base tapped hole, 10-32 UNF x 0.16 deep	
Weight	12.9g		0.46oz	
Case seal	Welded		Welded	
Connector	10-32 UNF Microdot			
Size	14.3 (A/F) x 23.7mm		0.562" (A/F) x 0.934"	

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