

AT/14 Triaxial Piezo-Tronic IEPE Accelerometer

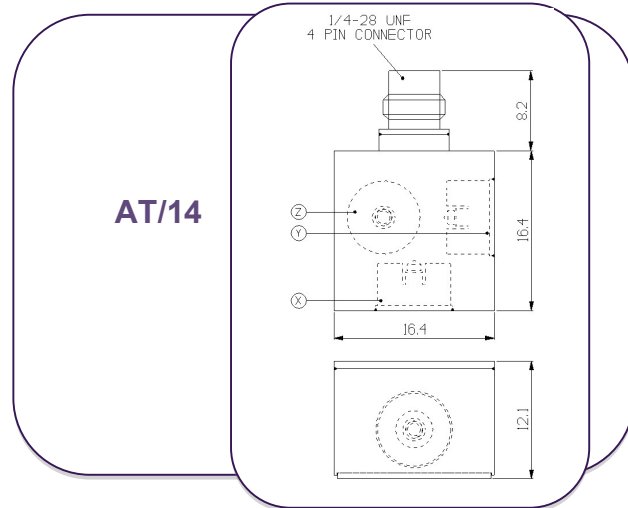
with Ceramic Isolating base

1mV/g up to 200mV/g $\pm 10\%$ 13gm Std Temp 125°C

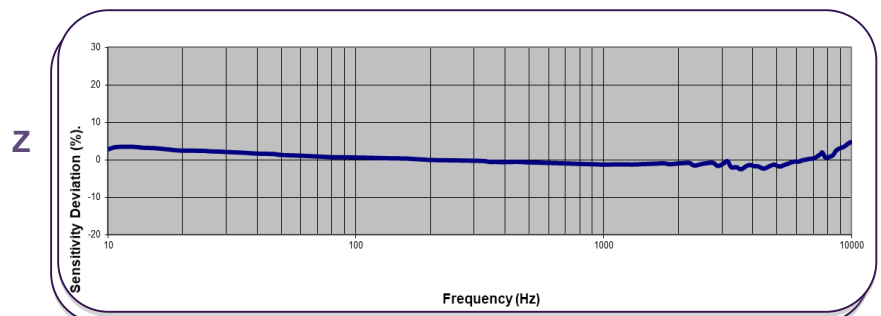
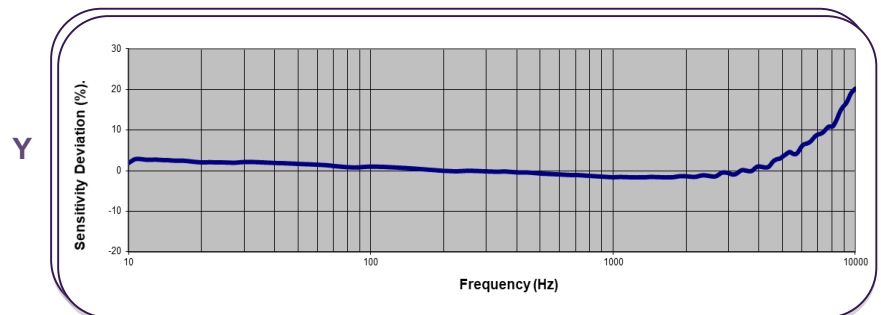
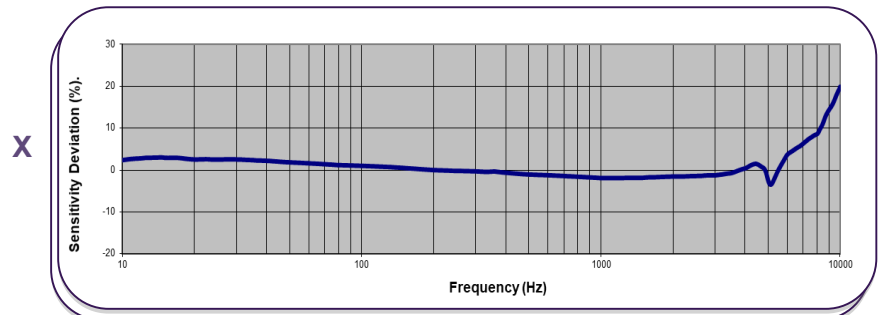


A lightweight general purpose triaxial vibration transducer comprising of three voltage output piezo-electric sensing elements mounted orthogonally within a titanium block with welded construction. The AT/14 is based upon the unique DJB Konic shear® design and maybe considered as an alternative to the A/131 or A/134. However, the latter by virtue of being a grouping of single axis devices, are repairable and in addition the physical separation of the cable leads to visible signal axis traceability.

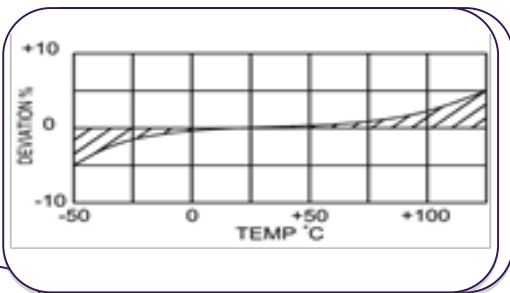
With a 1/4-28 UNF 4 pin connector centralised on one face and ruggedized single cables with three BNC labelled breakout leads the AT/14 is well suited to Automotive/Aerospace applications. Fitted with an integral ceramic base to provide complete ground isolation.



Typical Frequency Response



Temperature Response



Typical Spectral Noise (100mV/g):

1Hz	345 μ g/ \sqrt Hz
10Hz	42.8 μ g/ \sqrt Hz
100Hz	11.2 μ g/ \sqrt Hz
1kHz	5.67 μ g/ \sqrt Hz
10kHz	5.23 μ g/ \sqrt Hz

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		
	0.1mV/(m/s ²)	1.02mV/(m/s ²)	10.2mV/(m/s ²)	1mV/g	10mV/g	100mV/g
Voltage Sensitivity @ 20°C $\pm 10\%$	0.1mV/(m/s ²)	1.02mV/(m/s ²)	10.2mV/(m/s ²)	1mV/g	10mV/g	100mV/g
Resonant Frequency	X/Y ≥ 20 kHz Z ≥ 33 kHz					
Typical Frequency range $\pm 5\%$ $\pm 10\%$	1Hz – 6kHz 0.7Hz – 7kHz	1Hz – 6kHz 0.7Hz – 7kHz	1.5Hz – 6kHz 1Hz – 7kHz	1Hz – 6kHz 0.7Hz – 7kHz	1Hz – 6kHz 0.7Hz – 7kHz	1.5Hz – 6kHz 1Hz – 7kHz
Cross Axis Error	$\leq 5\%$ max					
Amplitude non-linearity (%FS)	$\leq 1\%$			$\leq 1\%$		
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					
Output Impedance	$\leq 100\Omega$					
Bias Voltage (20°C/68°F)	10/14 VDC					
Settling time within 10% bias	<5 seconds					
Broadband resolution grms	0.02	0.012	0.002	0.02	0.012	0.002
Base Strain Sensitivity	$\leq 0.001\text{g}/\mu$ strain					
Shock limit	49033m/s ²			5000g		
Saturation limit equiv. g	49033m/s ²	4903m/s ²	490m/s ²	5000g	500g	50g
Case Material	Titanium					
Isolated Mounting	Integrated ceramic base for isolated adhesive mounting					
Weight	13gm			0.46oz		
Case Seal	Welded					
Size	16.4 x 16.4 x 12mm AT/14			0.65 x 0.65 x 0.47in		
Connector	1/4 -28UNF, 4 Pin Connector					

Options:

AT/14, AT/14/TB, ATI/14/TB

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