DJB Instruments
SENSING ENGINEERING INNOVATION

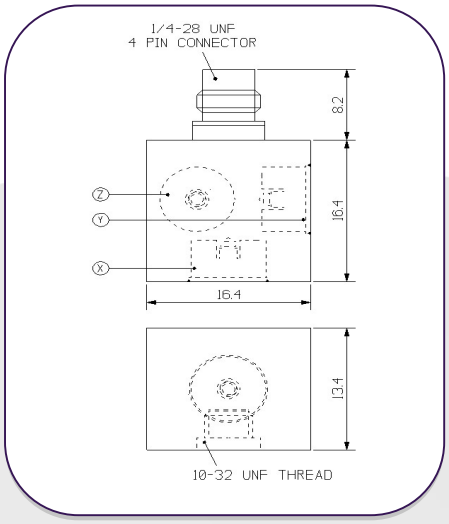
AT/14/TB Triaxial
Piezo-Tronic IEPE Accelerometer

1mV/g up to 200mV/g ±10% 16.6gm 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.

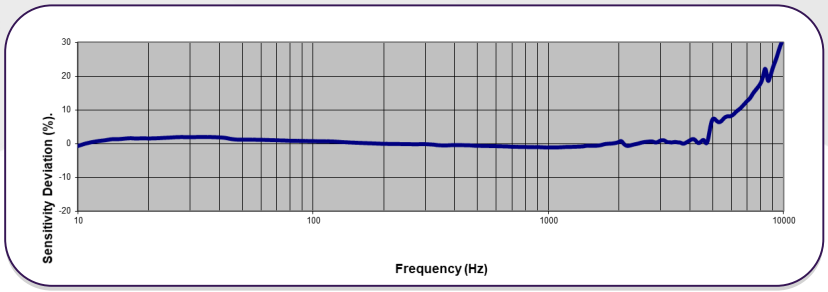
With a ¼-28 UNF 4 pin connector central on one side and ruggedized cables with three BNC labelled breakout leads the AT/14 is well suited to Automotive/Aerospace applications.

AT/14/TB



Typical Frequency Response

X



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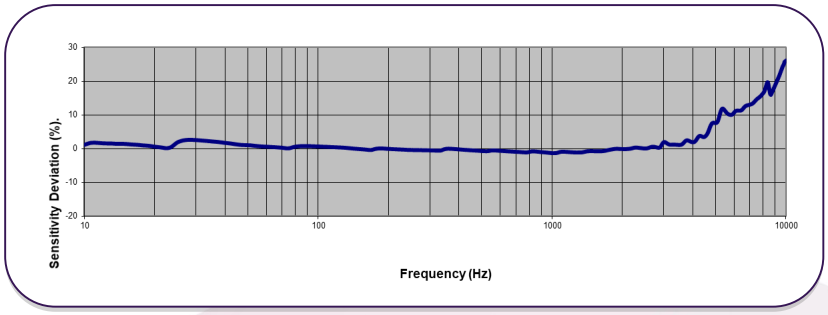
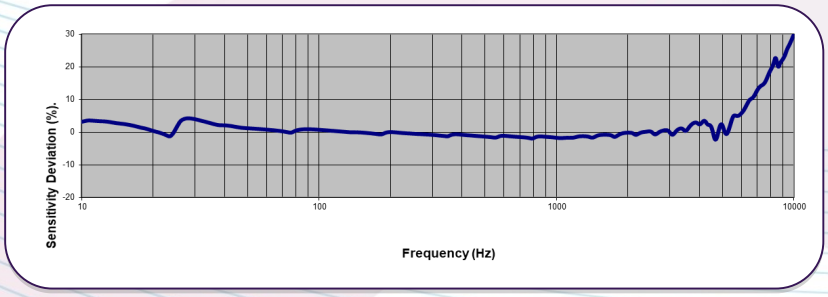
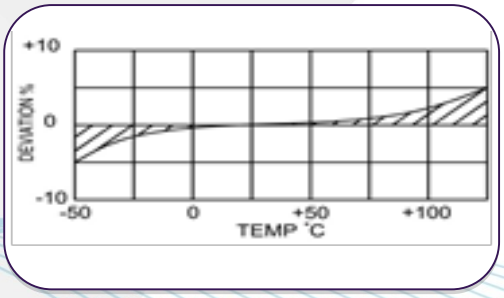


Z



Temperature Response



Typical Spectral Noise (100mV/g):

1Hz	345µg/√Hz
10Hz	42.8µg/√Hz
100Hz	11.2µg/√Hz
1kHz	5.67µg/√Hz
10kHz	5.23µg/√Hz

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

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A UK company with UK-based manufacturing, assembly and calibration in-house.

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ISO 9001 – 00025363

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	Metric		Imperial	
Voltage Sensitivity @ 20°C ±10%	1.02mV/(m/s²)	10.2mV/(m/s²)	10mV/g	100mV/g
Resonant Frequency	X/Y ≥25kHz Z ≥33kHz			
Typical Frequency range ±5% +10%	1Hz – 6kHz 0.7Hz – 7kHz	1.5Hz – 6kHz 1Hz – 7kHz	1Hz – 6kHz 0.7Hz – 7kHz	1.5Hz – 6kHz 1Hz – 7kHz
Cross Axis Error	≤5% max			
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	≤100Ω			
Bias Voltage (20°C/68°F)	10/14 V DC			
Settling time within 10% bias	<5 seconds			
Base Strain Sensitivity	≤0.002g/μ strain			
Broadband resolution (grms)	0.012	0.002	0.012	0.002
Amplitude non-linearity (%FS)	≤1%			
Shock limit	49033m/s²		5000g	
Saturation limit equiv. g	4903m/s²	490m/s²	500g	50g
Case Material	Titanium			
Mounting	10-32 UNF tapped hole			
Weight	16.6gm		0.59oz	
Case Seal	Welded			
Size	16.4 x 16.4 x 13.4mm		0.65 x 0.65 x 0.52in	
Connector	¼ -28UNF, 4 Pin Connector			

Options:

Other sensitivities available

AT/14 – adhesive base with integral ceramic isolating base.

ATI/14/TB – tapped base, case isolated

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