DJB Instruments
SENSING ENGINEERING INNOVATION

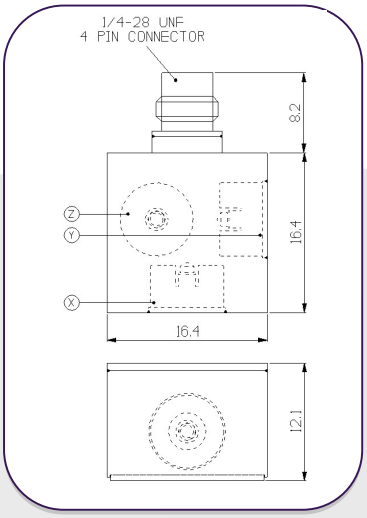
AT/14 Triaxial Piezo-Tronic IEPE Accelerometer with Ceramic Isolating base

1mV/g up to 200mV/g ±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.

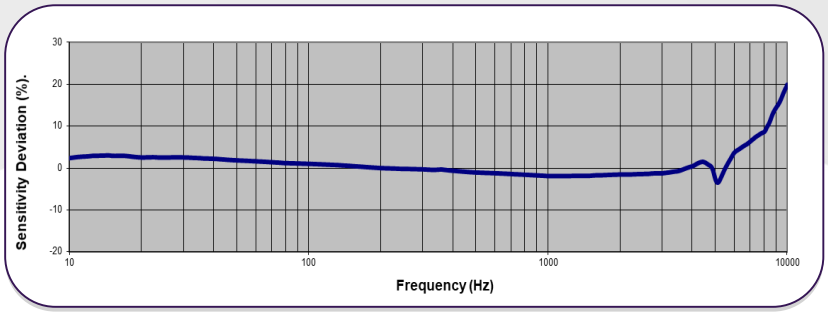
With a ¼-28 UNF 4 pin connector centralised on one face and ruggedized single cables with three BNC labelled breakout leads the AT/14 is well suited to Automotive/Aerospace applications. Fitted with an integral ceramic base to provide complete ground isolation.

AT/14

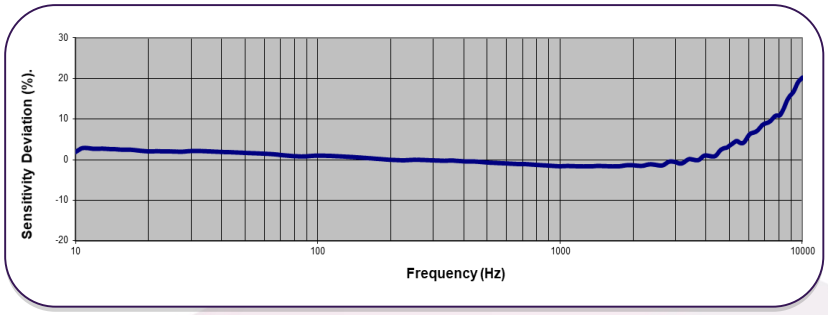


Typical Frequency Response

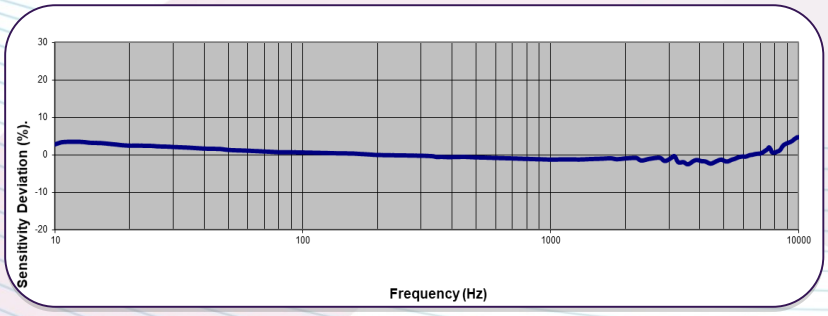
X



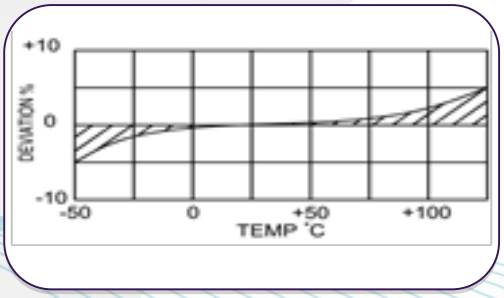
Y



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.

CERTIFIED ISO 9001 UKAS MANAGEMENT SYSTEMS 001
ISO 9001 – 00025363

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	Metric			Imperial		
Voltage Sensitivity @ 20°C ±10%	0.1mV/(m/s²)	1.02mV/(m/s²)	10.2mV/(m/s²)	1mV/g	10mV/g	100mV/g
Resonant Frequency	X/Y ≥20kHz Z ≥33kHz					
Typical Frequency range ±5% ±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	≤5% max					
Amplitude non-linearity (%FS)	≤1%			≤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	≤100Ω					
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	≤ 0.001g/μ strain					
Shock limit	49033m/s²			5000g		
Saturation limit equiv. g	49033m/s²	4903m/s²	490m/s²	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	¼ -28UNF, 4 Pin Connector					

Options:
AT/14, AT/14/TB, ATI/14/TB

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