

# AT/18 Ultra Miniature Triaxial IEPE Accelerometer

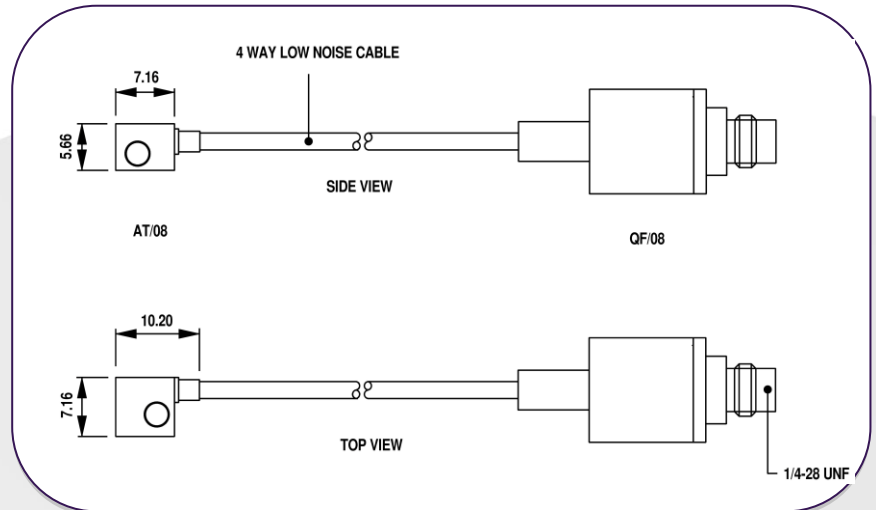
1mV/g up to 10mV/g  $\pm 10\%$     1.2gm    200°C Max Temp



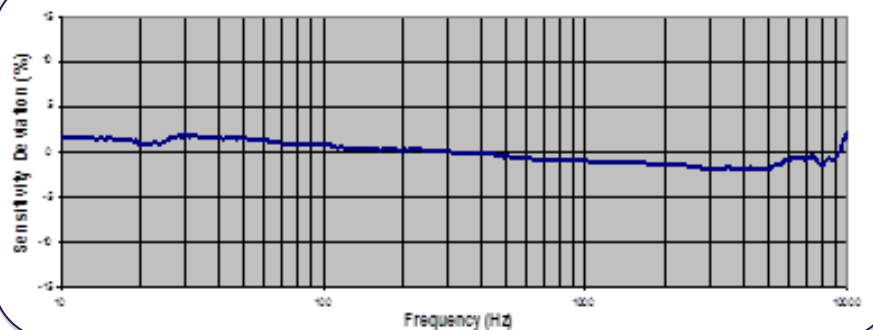
An Ultra-lightweight miniature triaxial IEPE vibration transducer comprising of three voltage output piezo-electric accelerometer elements mounted orthogonally within a titanium block. The use of independent shear sensing elements ensures a rugged and repeatable triaxial measurement under the most extreme conditions. This design will outperform single element devices. The AT/18 uses high temperature piezo-ceramics as standard to ensure thermal stability. The accelerometer features a 1m integral cable which terminates with the industry standard 1/4-28 UNF socket, Extension cable assemblies of any length can be provided breaking out to 3 BNC plugs. The AT/18 is available with DJB's unique high temperature IEPE solution capable of testing up to 200°C

Standard sensitivity options are from 1mV/g up to 10mV/g

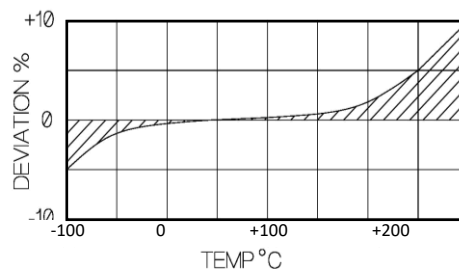
The AT/18 triaxial IEPE accelerometer can also be specified as a low outgassing accelerometer for use in vacuum applications.



## Typical Frequency Response:



## Temperature Response



### Typical Spectral Noise (5mV/g)

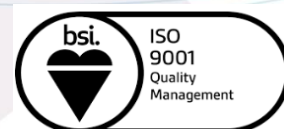
1Hz	1312 $\mu$ g/vHz
10Hz	401 $\mu$ g/vHz
100Hz	147 $\mu$ g/vHz
1kHz	63 $\mu$ g/vHz
10kHz	29 $\mu$ g/vHz

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

**DJB Instruments (UK) Ltd**  
Finchley Avenue,  
Mildenhall, Suffolk IP28 7BG

Tel +44 (0)1638 712 288  
Email sales@djbinstruments.com  
Web www.djbinstruments.com

DJB Iss.2.2018



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

FM11310

## AT/18 Ultra Miniature Triaxial IEPE Accelerometer

1mV/g up to 10mV/g  $\pm 10\%$

1.2gm

200°C Max Temp



	Metric			Imperial		
	0.1mV/(m/s <sup>2</sup> )	0.5mV/(m/s <sup>2</sup> )	10.2mV/(m/s <sup>2</sup> )	1mV/g	5mV/g	10mV/g
Voltage Sensitivity @ 20°C $\pm 10\%$	0.1mV/(m/s <sup>2</sup> )	0.5mV/(m/s <sup>2</sup> )	10.2mV/(m/s <sup>2</sup> )	1mV/g	5mV/g	10mV/g
Resonant Frequency	$\geq 58\text{kHz}$					
Typical Frequency Response $\pm 5\%$ $\pm 10\%$	10Hz – 9kHz 5Hz – 10kHz	10Hz – 9kHz 5Hz – 10kHz	20Hz – 9kHz 15Hz – 10kHz	10Hz – 9kHz 5Hz – 10kHz	1Hz – 9kHz 10Hz – 10kHz	10Hz – 9kHz 5Hz – 10kHz
Cross Axis Error	$\leq 5\%$ max					
Temperature Range	-50/ +200°C			-58/ +392°F		
Voltage Sensitivity deviation (20°C / 68°F)	-5% @ -50°C +10% @ +200°C			-5% @ -58°F +10% @ +392°F		
Supply Voltage	15V DC to 35V DC standard					
Supply Current	2-20mA					
Bias Voltage (20°C / 68°F)	9 to 10V DC					
Max Continuous accn.g sine	49033m/s <sup>2</sup>			5000g		
Saturation limit (equiv. g)	49033m/s <sup>2</sup>	9807m/s <sup>2</sup>	4903 m/s <sup>2</sup>	5000g	1000g	500g
Case Material	Titanium					
Mounting	Adhesive					
Weight	1.2gm			0.04oz		
Case Seal	Welded					
Size	7 x 7.5 x 5.6mm			0.275 x 0.295 x 0.220in		
Connector	1m low noise Integral Cable with ¼-28 UNF socket					
Base Strain Sensitivity	$\leq 5\%$					

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

### DJB Instruments (UK) Ltd

Finchley Avenue,  
Mildenhall, Suffolk IP28 7BG

Tel +44 (0)1638 712 288  
Email sales@djbinstruments.com  
Web www.djbinstruments.com

DJB Iss.2.2018



FM11310

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