

# AT/18 Ultra Miniature Triaxial IEPE Accelerometer

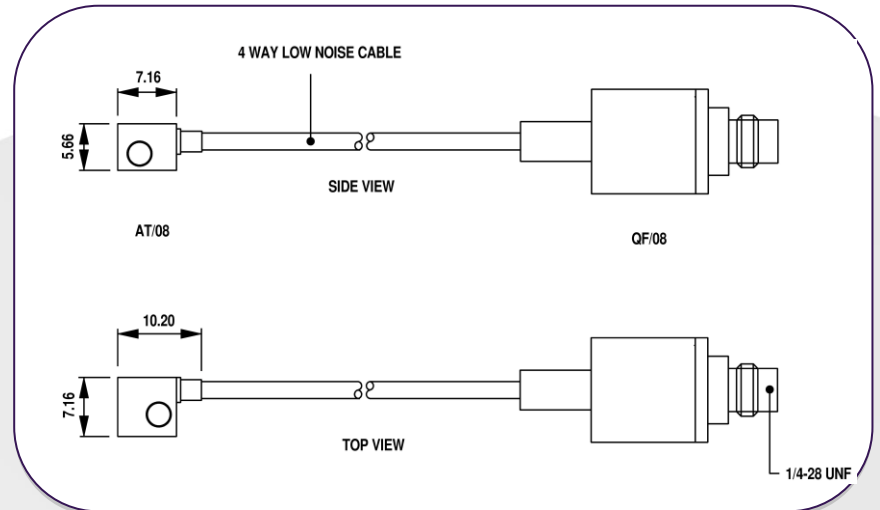
1mV/g up to 10mV/g  $\pm 10\%$     1.2gm    200°C Max Temp



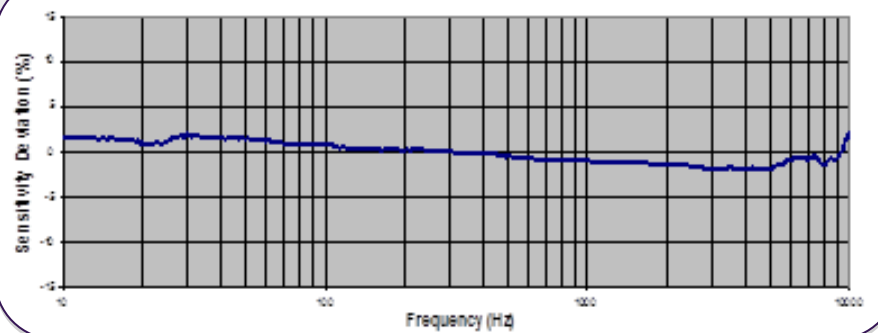
An Ultra-lightweight miniature triaxial IEPE vibration transducer comprising of three voltage output piezo-electric accelerometer elements mounted orthogonally within a titanium block. The use of independent shear sensing elements ensures a rugged and repeatable triaxial measurement under the most extreme 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

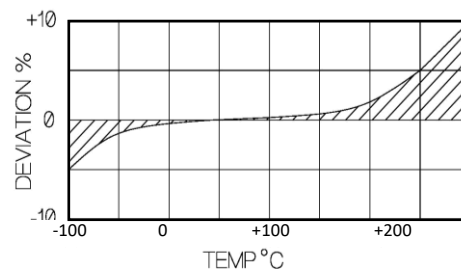
The AT/18 triaxial IEPE accelerometer can also be specified as a low outgassing accelerometer for use in vacuum applications.



## Typical Frequency Response:



## Temperature Response



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

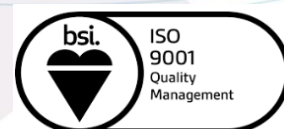
1Hz	1312 $\mu$ g/vHz
10Hz	401 $\mu$ g/vHz
100Hz	147 $\mu$ g/vHz
1kHz	63 $\mu$ g/vHz
10kHz	29 $\mu$ g/vHz

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

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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	
Voltage Sensitivity @ 20°C $\pm 10\%$	0.1mV/(m/s <sup>2</sup> )	0.5mV/(m/s <sup>2</sup> )	1mV/g	5mV/g
Resonant Frequency	$\geq 58$ kHz			
Typical Frequency Response $\pm 5\%$ $\pm 10\%$	1Hz – 9kHz 0.7Hz – 10kHz	10Hz – 9kHz 5Hz – 10kHz	1Hz – 9kHz 0.7Hz – 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>	980m/s <sup>2</sup>	5000g	1000g
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	$\leq 5\%$			

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