

AT/18 Ultra Miniature Triaxial IEPE Accelerometer

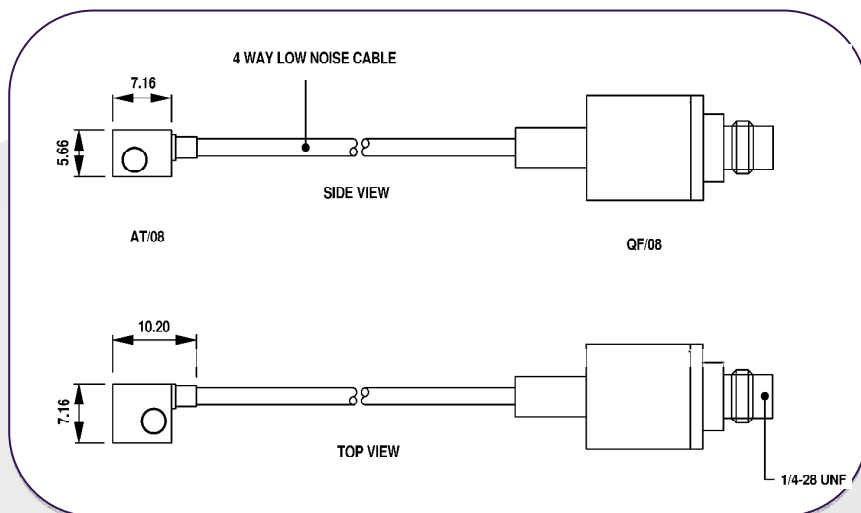
1mV/g up to 10mV/g $\pm 10\%$ 1.2gm 200°C Max Temp



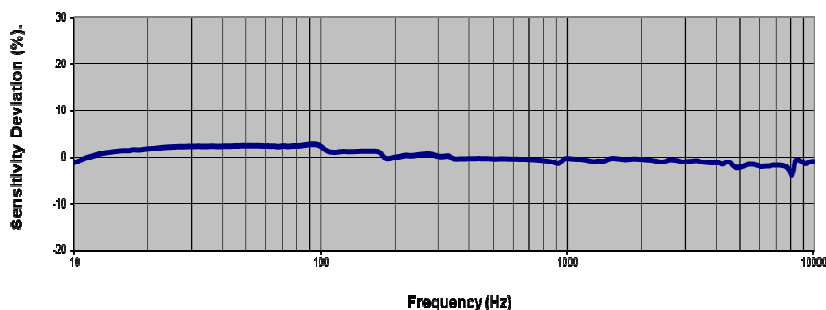
An Ultra-lightweight miniature triaxial IEPE vibration transducer comprising of three voltage output piezo-electric accelerometer elements mounted orthogonally within a stainless steel block. The use of independent shear sensing elements ensures a rugged and repeatable triaxial measurement under the 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 plug, Extension cable assemblies of any length can be provided breaking out to 3 BNC plugs

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

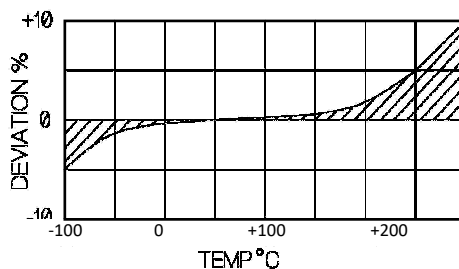
The AT/18 triaxial IEPE accelerometer can also be specified as a low outgassing accelerometer for use in vacuum applications.



Typical Frequency Response:



Temperature Response



Typical Spectral Noise (10mV/g)

1Hz	987 μ g/VHz
10Hz	282 μ g/VHz
100Hz	84.3 μ g/VHz
1kHz	39.2 μ g/VHz
10kHz	39.1 μ 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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DJB Iss.7.2020



ISO 9001 – 00025363

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 ±10%	0.1mV/(m/s²)	1.02mV/(m/s²)	1mV/g	10mV/g
Resonant Frequency	≥58kHz			
Typical Frequency Response ±5% ±10%	1Hz – 12kHz 0.7Hz – 14kHz	2Hz – 12kHz 1Hz – 14kHz	1Hz – 12kHz 0.7Hz – 14kHz	2Hz – 12kHz 1Hz – 14kHz
Cross Axis Error	≤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 35VDC standard			
Supply Current	2-20mA			
Bias Voltage (20°C / 68°F)	10 to 14VDC			
Broadband resolution (grms)	0.005		0.005	
Amplitude linearity (%FS)	≤2%		≤2%	
Shock limit	98066m/s²		10000g	
Saturation limit (equiv. g)	49033m/s²	4903m/s²	5000g	500g
Case Material	Stainless Steel			
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 plug			
Settling time within 10% bias	≤16 seconds			

The AT/18 triaxial IEPE accelerometer is an ultra lightweight and miniature accelerometer and by its nature should be handled with care and suitable consideration made by the user to the cable positioning and fixing. For best results the cable should be fixed to avoid noise issues and once installed minimal handling of the cable during testing. The human body can generate significant static electrical charge, handling of the cable can cause spurious signals, ensure the system is correctly earthed.

Removal should be done carefully and excess adhesive removed without damaging the surface of the accelerometer.

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