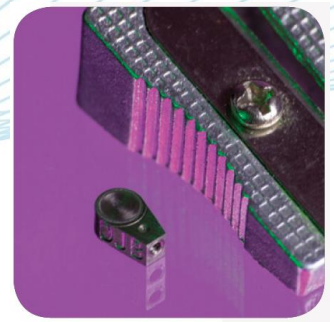
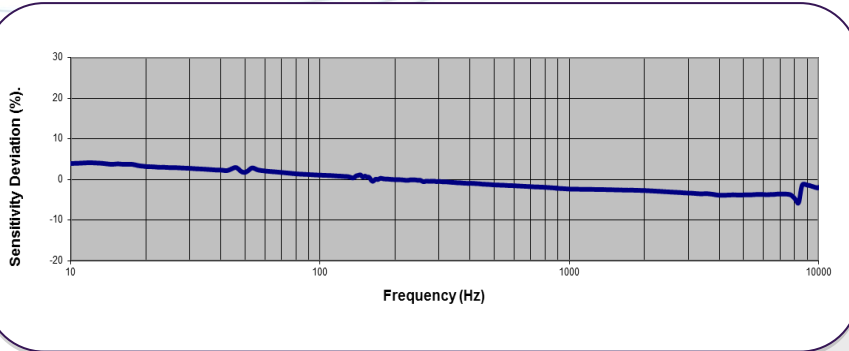


A/28/E Micro-miniature Piezoelectric Accelerometer

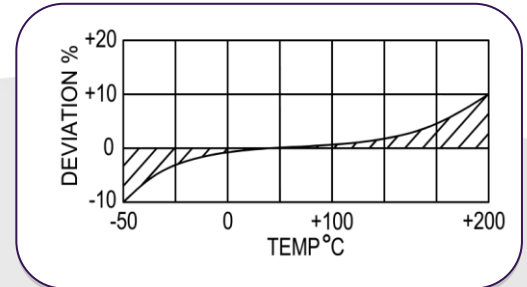
0.4pC/g nom. 0.19gm 200°C Max



Typical Frequency Response



Temperature Response



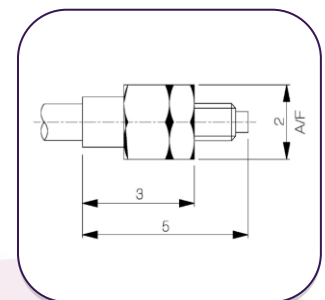
The A/28/E is the world's smallest piezoelectric fully welded stainless steel accelerometer. This ultra-miniature piezoelectric vibration transducer provides virtual transparency when applied to the lightweight structures, allied to relative freedom from strain induced error. A/28/E incorporates a mechanically pre-loaded shear plate sensing element. Good practice in use of A/28/E will maximize service life. Removal from a structure involves shearing an adhesive bond, shock means are not advisable, use the detachment tool provided. Abrasive cleaning of the attachment face will reduce base thickness over time; sparing use of adhesive will aid longevity and data accuracy. Signal outlet is via a surface contact socket.

A 0.8mm dia. Soft line cable is available specifically for the A/28/E. although graded anti-microphonic a certain amount of triboelectric induced noise will be generated. This together with cable induced strain may be minimized by anchoring the cable adjacent to the transducer, which should reduce measurement uncertainty around 5% @ 10g. Minimum g threshold is determined by instrumentation noise and environmental factors. A typical instrumentation (charge amplifier) noise spectral density (nsd) is around 0.02fC / √Hz above 100Hz increasing by 3dB/octave below 100Hz. Wideband noise is nsd x √bandwidth, i.e. 0.006pC/100 kHz and assumes zero input capacitance, increasing by a further 0.006pC/nF input capacitance (assuming 1nF charge amplifier transfer capacitance).

A/28/E-1 Integral Cable option.

	Metric		Imperial	
Charge sensitivity nom.	0.03pC/(m/s ²)	0.06pC/(m/s ²)	0.3pC/g	0.6pC/g
Capacitance pF	250	420	250	420
Resonant Frequency KHz	≈45		≈45	
Cross Axis error % max	5		5	
Temperature Range	-50/ +200°C		-58/ +392°F	
Charge sensitivity deviation re 20°C/68°F	-5% @ - 50°C +10% @ +200°C		-5% @ - 58°F +10% @ +392°F	
Frequency Response	1Hz- 12KHz ±5% 1Hz- 15KHz ±10%		1Hz- 12KHz ±5% 1Hz- 15KHz ±10%	
Maximum Continuous 'g level	49,033m/s ²		5000g	
Maximum Shock g level, rise time μs	98100m/s ² , 20		10000g, 20	
Case Material	s/steel 303 S31		s/steel 303 S31	
Connector	L8		L8	
Mounting	Adhesive		Adhesive	
Case Seal	Welded		Welded	
Weight	0.19gm		0.007oz	
Size	5.7 x Ø3.5 x 2.3mm		.022 x Ø0.14 x 0.09in	

L8 Connector



A/28/E

