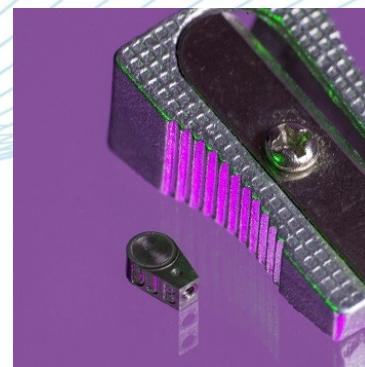


## A/28/E Micro-miniature Piezoelectric Accelerometer

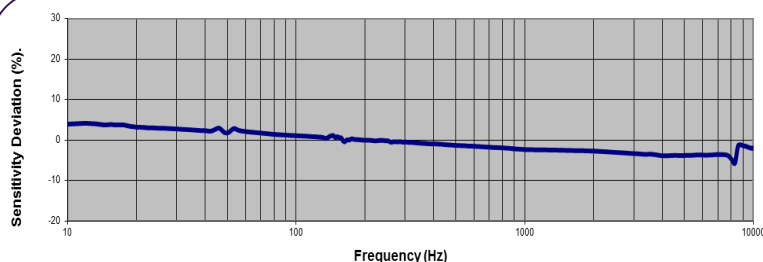
0.4pC/g nom.      0.19gm      200°C Max



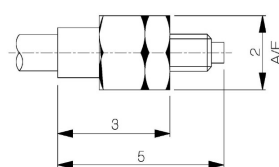
The A/28/E is the world's smallest piezoelectric fully welded stainless steel accelerometer. This ultra-miniature piezoelectric vibration transducer provides virtual transparency when applied to the lightweight structures, allied to relative freedom from strain induced error. A/28/E incorporates a mechanically 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 tribo-electric 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 /  $\sqrt{\text{Hz}}$  above 100Hz increasing by 3dB/octave below 100Hz. Wideband noise is nsd x  $\sqrt{\text{bandwidth}}$ , 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).

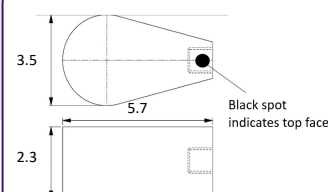
### Typical Frequency Response



### L8 Connector

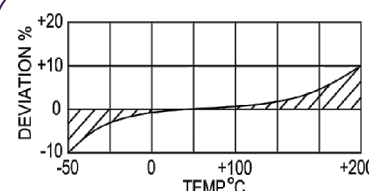


### A/28/E



	Metric	Imperial
Charge sensitivity nom.	0.04pC/(m/s <sup>2</sup> )	0.4pC/g
Resonant Frequency	≥45kHz	
Typical Frequency Response	1Hz- 12kHz 0.7Hz- 14kHz	
Cross Axis error	≤5%	
Capacitance nom.	335 pF	
Temperature Range	-50/ +200°C	-58/ +392°F
Charge sensitivity deviation (20°C/68°F)	-5% @ - 50°C +10% @ +200°C	-5% @ - 58°F +10% @ +392°F
Base strain sensitivity	≤ 5%	
Maximum Shock g level, rise time $\mu\text{s}$	98100m/s <sup>2</sup> , 20	10000g, 20
Case Material	s/steel 303 S31	
Mounting	Adhesive	
Weight	0.19gm	0.007oz
Case Seal	Welded	
Size	5.7 x $\varnothing$ 3.5 x 2.3mm	.022 x $\varnothing$ 0.14 x 0.09in
Connector	L8	

### Temperature Response



### Options

A/28/E-1: Includes 1m integral cable

**peak**  
DISTRIBUTOR

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

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