

## Single axial IEPE accelerometer

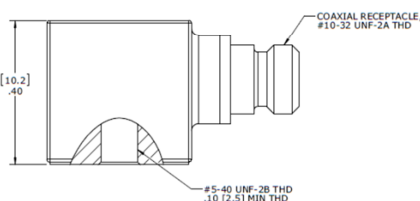
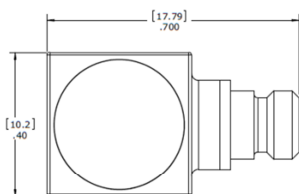


### Features

- Miniature cube
- Size 10X10X10
- Adhesive or stud mounting
- Hermetic seal
- Annular shear mode
- Wide temperature range
- Wide frequency response

### Application

- Vibration monitoring
- Shock testing
- Road testing
- Modal analysis
- Aircraft testing



### Dynamic

Sensitivity, $\pm 10\%$ , $25^{\circ}\text{C}$ .....	100 mV/g
Acceleration range .....	50 g peak
Amplitude nonlinearity.....	1%
Frequency response:	
$\pm 5\%$ .....	1 - 7,000 Hz
$\pm 1\text{dB}$ .....	1 - 10,000 Hz
$\pm 3\text{dB}$ .....	0.5 - 15,000 Hz
Resonance frequency.....	40 kHz
Transverse sensitivity, max.....	5% of axial
Temperature response:	
$-50^{\circ}\text{C}$ .....	-10%
$+120^{\circ}\text{C}$ .....	+10%

### Electrical

Power requirement: voltage source .....	18 - 30 VDC
current regulating diode .....	2 - 10 mA
Electrical noise, Broadband Spectral(g):	
1 Hz to 10 kHz.....	500 $\mu\text{g}$
Output impedance, max.....	100 $\Omega$
Bias output voltage.....	10 VDC
Grounding.....	Case grounded

### Environmental

Temperature range.....	$-50$ to $125^{\circ}\text{C}$
Vibration limit.....	500 g peak
Shock limit.....	5,000 g peak
Electromagnetic sensitivity, equiv g, max .....	70 $\mu\text{g/gauss}$
Sealing .....	Hermetic
Base strain sensitivity, max.....	0.0002 g/ $\mu\text{strain}$

### Physical

Sensing element design.....	PZT ceramic/shear
Weight.....	7 grams
Case material.....	Stainless Steel
Output connector.....	10-32

### Accessories

Mounting stud: M5(-M), 10-32(-E), or W/O

Mating cable with BNC output

Calibration certificate

Note: Frequency response limits spectral and noise values are typical

### Ordering Information

510A-10-M

