

Tri-axial IEPE accelerometer



Features

- Tri-axial measurement
- Miniature cube
- 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°C	10 mV/g
Acceleration range	500 g peak
Amplitude nonlinearity.....	1%
Frequency response:	
$\pm 5\%$	2 - 4,000 Hz
$\pm 1\text{dB}$	1- 10,000 Hz
$\pm 3\text{ dB}$	0.4 - 12,000 Hz
Resonance frequency.....	40 kHz
Transverse sensitivity, max.....	5% of axial
Temperature response:	
-50°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.....	5 mg
Output impedance, max.....	100Ω
Bias output voltage.....	10 VDC
Grounding.....	Case grounded

Environmental

Temperature range.....	-50 to 120°C
Vibration limit.....	1000 g peak
Shock limit.....	5,000 g peak
Electromagnetic sensitivity, equiv g, max	$70\mu\text{g/gauss}$
Sealing	Hermetic
Base strain sensitivity, max.....	$0.0002\text{ g}/\mu\text{strain}$

Physical

Sensing element design.....	PZT ceramic/shear
Weight.....	12 grams
Case material.....	Titanium
Output connector.....	4 pin

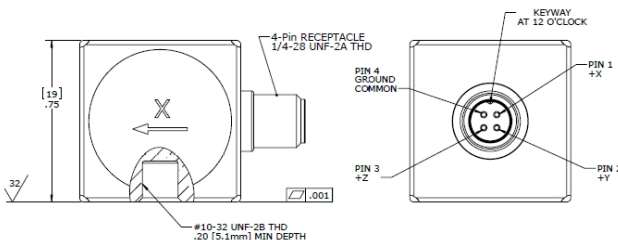
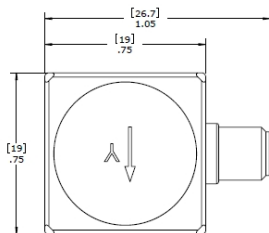
Accessories

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

Mating cable with BNCx3 output

Calibration certificate

Note: Frequency response limits spectral and noise values are typical



Ordering Information

530A-500-M

- └─ Mounting stud
- └─ Range in g
- └─ Output type
- └─ Model