

Embedded IEPE accelerometer

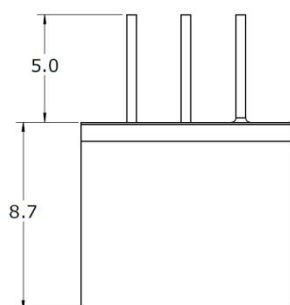
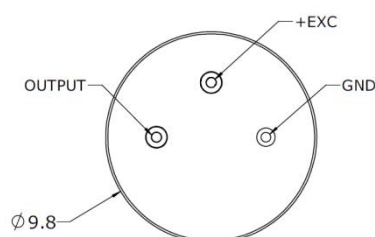


Features

- Miniature size
- Size 10X9
- Adhesive or stud mounting
- Annular shear mode
- Wide temperature range
- Wide frequency response

Application

- Embedded monitoring
- Shock testing
- Modal analysis
- Machine monitoring



Dynamic

Sensitivity, $\pm 10\%$, 25°C	100 mV/g
Acceleration range	20 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 - 12,000 Hz
Resonance frequency.....	38 kHz
Transverse sensitivity, max.....	5% of axial
Temperature response:	
-50°C	-10%
$+120^{\circ}\text{C}$	$+10\%$

Electrical

Power requirement: voltage source	3.0 – 5.5 VDC
Resolution, Broadband Spectral(g):.....	1 mg
Output impedance, max.....	100 Ω
Bias output voltage.....	VCC/2
Current consumption.....	<0.15mA
Warm up time.....	<1s
Grounding.....	Case grounded

Environmental

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

Physical

Sensing element design.....	PZT ceramic/shear
Weight.....	3.2 grams
Case material.....	Stainless Steel
Output.....	TO-5

Accessories

TO-5 connector output
Calibration certificate
Option: Ceramic washer

Note: Frequency response limits spectral and noise values are typical

Ordering Information

515B-20	
└─	Range in g
└─	Output type
└─	Model