

Slow turning machinery accelerometer



Features

- Low frequency response
- Rugged design
- High sensitivity
- Hermetic seal
- Case isolated
- ESD protection
- Reverse wiring protection
- EMI / RFI shielded

Dynamic

Sensitivity, $\pm 10\%$, 25°C	500 mV/g
Acceleration range	10 g peak
Amplitude nonlinearity.....	1%
Frequency response:	
$\pm 5\%$	0.5 - 4,000 Hz
$\pm 1\text{ dB}$	0.3 - 6,000 Hz
$\pm 3\text{ dB}$	0.1 - 10,000 Hz
Resonance frequency.....	24 kHz
Transverse sensitivity, max.....	5% of axial
Temperature response:	
-50°C	-5%
$+120^{\circ}\text{C}$	+5%

Electrical

Power requirement: voltage source	18 - 30 VDC
current regulating diode	2 - 10 mA
Electrical noise, Broadband Spectral(g):	
2.5 Hz to 25 kHz.....	200 μg
10 Hz.....	4 $\mu\text{g}/\sqrt{\text{Hz}}$
100 Hz.....	2 $\mu\text{g}/\sqrt{\text{Hz}}$
1000 Hz.....	1 $\mu\text{g}/\sqrt{\text{Hz}}$
Output impedance, max.....	100 Ω
Bias output voltage.....	12 VDC
Grounding.....	case isolated, Internally shielded

Environmental

Temperature range.....	-50 to 120°C
Vibration limit.....	100 g peak
Shock limit.....	2,000 g peak
Electromagnetic sensitivity, equiv g, max	70 $\mu\text{g}/\text{gauss}$
Sealing	Hermetic
Base strain sensitivity, max.....	0.0002 g/ μstrain

Physical

Sensing element design.....	PZT ceramic/shear
Weight.....	100 grams
Case material.....	304L stainless steel
Mounting.....	1/4 - 28 UNF
Output connector.....	2 pin, MIL-C-5015
Mating connector.....	R6 type
Recommended cabling.....	J10 / J9T2A

Accessories

1/4-28 to 1/4-28 mounting stud (or customers specified)

Calibration certificate

Note: Frequency response limits spectral and noise values are typical

Ordering Information

310A-10-LF

