

# A320 Series

## Ultra-Low Range Linear Servo Accelerometer



## Features

- Ultra Low Range  $\pm 1/10$  g to  $\pm 2$ g
- High-level output signal
- Fully self-contained - connect to a DC power source and a readout or control device for a complete operating system
- Extremely rugged, withstands 1500g shock

## Benefits

- Small size for easy integration into constrained space
- Wide temperature range  $-18^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

## Applications

Geophysical, seismic and civil engineering studies

Flight test monitoring

Structural monitoring

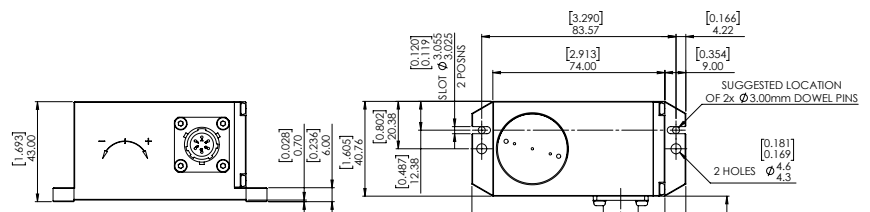
Low acceleration analysis

## Electrical Connections

Pin A	Supply +15Vdc
Pin B	0V common
Pin C	Supply -15Vdc
Pin D	Output
Pin E	Not used
Pin F	Self Test

SIDEVIEW

PLAN VIEW



## Specifications

### Specifications by Range @20°C

		± 0.10g	± 0.25g	± 0.5g	± 1.0g	± 2.0g
Output Impedance	Ω (max)			10		
Output Noise (DC to 10kHz)	V <sub>rms</sub> (max)			0.002		
Non-linearity (see note 2)	% FRO(max)			0.05		
Non-repeatability	% FRO(max)	0.02	0.02	0.02	0.01	0.01
Resolution	% FRO(min)			0.0005		
Frequency Response (-3dB)	Hz (nom)	15	30	40	55	55
Cross-axis Sensitivity (see note 4)	g/g (max)			± 0.002		
Zero Offset (see note 3)	Volts dc (max)			± 0.10		
Thermal Zero Shift	%FRO/°C(max)	± 0.03	± 0.01	± 0.005	± 0.005	± 0.005
Thermal Sensitivity Shift	%Reading/°C (max)	± 0.03	± 0.01	± 0.006	± 0.006	± 0.006

### Electrical

Full Range Output (FRO)(see note 1 & 5)	Volts dc	±5 (option of ±10Vdc)
Excitation Voltage	Volts dc	±12 to ±18
Current Consumption	mA (nom)	±15

### Environmental Characteristics

Operating Temperature Range	°C	-18 to 70
Survival Temperature Range	°C	-40 to 70
Constant Acceleration Overload	g	50
Shock Survival		1500g, 0.5msec, ½ sine
Vibration Endurance		35g rms, 20 Hz to 2000 Hz sinusoidal

## Notes

1. Full Range Output is defined as the peak-to-peak acceleration, i.e. ±1g = 2g peak-to-peak
2. Non-linearity is determined by the method of least squares under constant acceleration conditions
3. Zero offset is specified under static conditions with no vibration inputs
4. Cross-axis Sensitivity is the output at 1g in cross-axis when tested under static acceleration conditions

## Model Designation & Ordering Code

A 32   - 0001 -   g

3 Electrical Connector └─┬─┘ g Range  
5 Solder Pins