



A320 Series

Ultra-Low Range Linear Servo Accelerometer

Features

- Ultra Low Range $\pm 1/10$ g to ± 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°C to $+70^{\circ}\text{C}$

Applications

Geophysical, seismic and civil engineering studies

Flight test monitoring

Structural monitoring

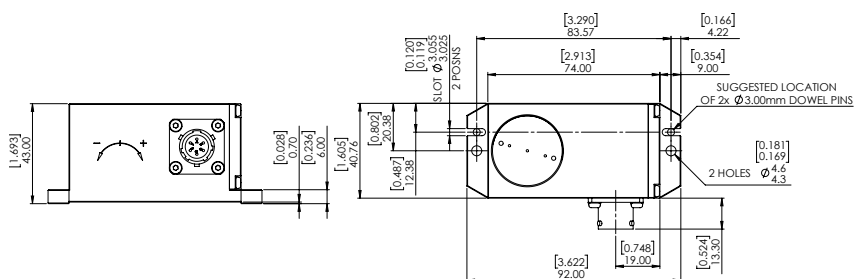
Low acceleration analysis

Electrical Connections

Pin A	Supply 20-30Vdc
Pin B	0V common
Pin C	0V common
Pin D	Output 4-20mA
Pin E	Not used
Pin F	Self Test

SIDE VIEW

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 rms (max)			0.002		
Non-linearity (<i>see note 2</i>)	% 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)	20	30	40	55	60
Cross-axis Sensitivity (<i>see note 4</i>)	g/g (max)			± 0.002		
Zero Offset (<i>see note 3</i>)	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) (<i>see note 1 & 5</i>)	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 3 2 - 0 0 0 1 - g

3 Electrical Connector
5 Solder Pins

g Range