

Schaevitz® A320 'L' Series

Gravity Referenced, Ultra-Low Range

Linear Servo Accelerometer with 4 to 20mA Output

Features

- Fully self-contained - connect to a DC power source and a readout or control device for a complete operating system
- 4 to 20mA output signal
- $\pm 1/10$ g to ± 2 g ranges available
- Extremely rugged, withstands 1500g shock

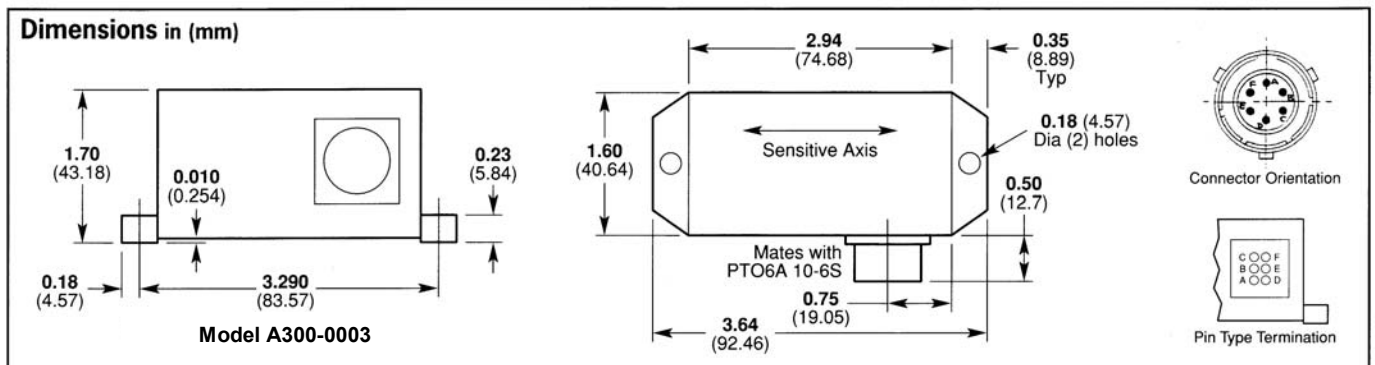
Applications

- Geophysical, seismic and civil engineering studies
- Flight test monitoring
- Structural monitoring
- Low acceleration analysis



A320L

The A320L Series are high precision, closed loop, servo balance, ultra-low range accelerometers with 4 to 20mA outputs that can be used in a wide variety of industrial and military applications. Despite its low measuring range the A320L Series are very robust and resistant to mechanical shock. Electrical terminations are via 6-pin, bayonet lock connector or solder pins.



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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
Environmental Sealing		IP65

Specifications by Range @ 20°C

Ranges		± 0.10g	± 0.25 g	± 0.50g	± 1.00g	± 2.00g
Excitation Voltage	Volts dc			20 to 30		
Current Consumption	mA (nom)			35		
Full Range Output (FRO) (see notes 1 & 5)	mA (nom)			4 to 20		
Output Standardisation	% FRO (max)			±2		
Output Noise	mA (max)			0.020		
Non-Linearity (see note 2)	%Reading (max)			0.08		
Non-Repeatability	% FRO (max)	0.02	0.01	0.01	0.01	0.01
Resolution	% FRO (max)			0.01		
Frequency Response (-3dB)	Hz (nom)	20	30	40	55	60
Cross-axis sensitivity (see note 4)	g/g (max)			± 0.002		
Zero Offset (see note 3)	mA (max)			± 0.10		
Thermal Zero Shift	%FRO/°C (max)	± 0.05	± 0.02	± 0.01	± 0.01	± 0.01
Thermal Sensitivity Shift	%Reading/°C (max)	± 0.05	± 0.02	± 0.01	± 0.01	± 0.01

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 static acceleration conditions
3. Zero offset is specified under static conditions with no vibration inputs
4. Cross-axis Sensitivity is the output at 90 degrees when tested under static acceleration conditions
5. For 1g biased units, the scale factor is 8mA/g

How to Order

Specify model type with appropriate range; e.g. an A323L-0001-0.5G is an accelerometer with connector and a range of ±½ g; an A325 - 0003 - 0.25G is an accelerometer with pins and a range of ±¼ g. Please specify Mating Connector 3CON-0009 if required.