Sherborne Sensors

A320 'L' Series

Ultra-Low Range
Linear Servo Accelerometer

Features

- Ultra Low Range ±1/10g to ±2g
- 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

Applications

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

Benefits

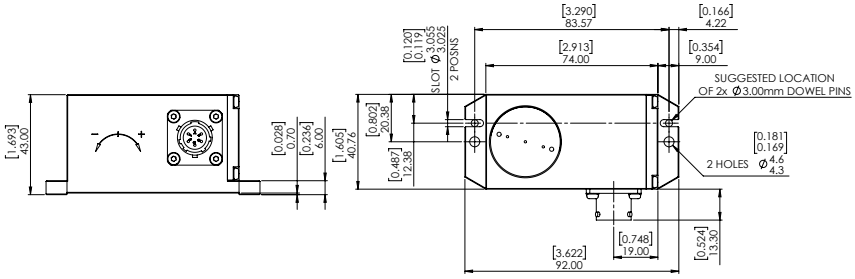
- Small size for easy integration into constrained space
- Wide temperature range -18 °C to +70 °C

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



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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)	mA (max)			0.020		
Non-linearity *(see note 2)*	% FRO (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)	15	30	40	55	55
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

Electrical

Full Range Output (FRO) *(see note 1 & 5)*	mA (nom)	4 to 20
Excitation Voltage	Volts dc	20 to 30
Current Consumption	mA (nom)	35

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 90 degrees when tested under static acceleration conditions
5. For 1g biased units, the scale factor is 8mA/g

Model Designation & Ordering Code

A 3 2 □ L - 0 0 0 1 - □ g

3 Electrical Connector
5 Solder Pins

g Range

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Sherborne Sensors, a Nova Metrix company