

A320 'L' Series

Ultra-Low Range
Linear Servo Accelerometer



Features

- Ultra Low Range $\pm 1/10g$ to $\pm 2g$
- 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

Flight test monitoring

Structural monitoring

Low acceleration analysis

Benefits

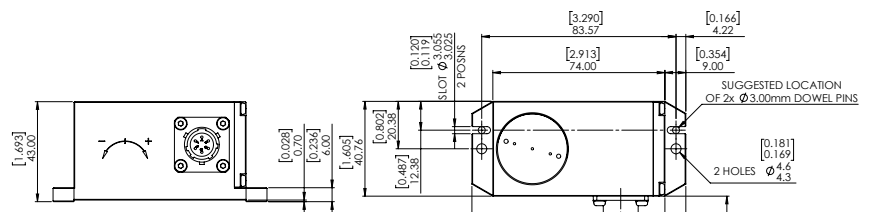
- Small size for easy integration into constrained space
- Wide temperature range $-18\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$

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



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

