

**BEST OF  
CLASS**



The LCF-2530 utilizes Jewell's newest technology providing superior stability over temperature and time. The design of the LCF-2530 was optimized to provide the high accuracy and superior repeatability, and reliability of low g acceleration and utilizes Jewell's rugged, fluid damped, flexure suspension servo technology in a small convenient package for applications requiring a compact dual axis solution. This accelerometer provides better than 1  $\mu$ g (micro g) resolution and Jewell's new sensor technology and is ideal for applications where EMI is of concern compared to other sensors available on the market utilizing traditional closed-loop sensor technology.

### LCF-2530 Inclinometer Specifications

#### Performance

Input Range, g:	$\pm 0.25$	$\pm 0.5$	$\pm 1.0$	$\pm 2.0$	$\pm 5.0$
Full Range Output (FRO) <sup>1</sup> , Volts, $\pm 1\%$ :	$\pm 5.0$	$\pm 5.0$	$\pm 5.0$	$\pm 5.0$	$\pm 5.0$
Nonlinearity, % FRO <sup>2</sup> , maximum:	0.02	0.02	0.02	0.05	0.10
Scale Factor, volts/g, nominal:	20.0	10.0	5.0	2.5	1.0
Scale Factor Temp Sensitivity, PPM/ $^{\circ}$ C maximum:	100	60	60	100	100
Bias, g, maximum:	0.001	0.002	0.004	0.005	0.005
Bias Temp Sensitivity, Volts/ $^{\circ}$ C, maximum:	0.001	0.0005	0.0003	0.0003	0.0003
Bandwidth (-3 dB) <sup>3</sup> , Hz, nominal:	30	30	30	30	30
Transverse Axis Misalignment, $^{\circ}$ , maximum:	$\pm 0.50$	$\pm 1.00$	$\pm 1.00$	$\pm 1.00$	$\pm 1.00$
Resolution and Threshold, $\mu$ g:			1		

#### Electrical

Input Voltage, VDC:	$\pm 12$ to $\pm 18$
Input Current, mA, nominal:	30
Noise, Vrms, maximum:	0.002

#### Environmental

Operating Temp Range:	-40 to $+80^{\circ}$ C
Survival Temp Range:	-60 to $+90^{\circ}$ C
Vibration:	20grms
Shock:	1000g, 1msec, $\frac{1}{2}$ sine
Seal:	MIL-STD-202, Method 112
Weight:	8oz

### Applications

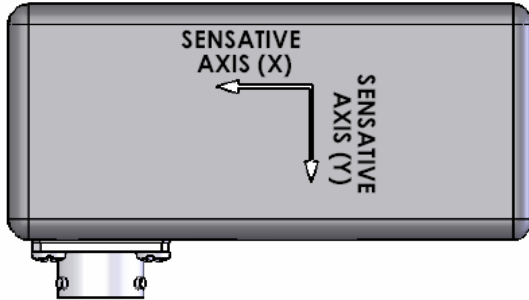
- Satellite Nutation Sensing
- Train Banking and Braking
- Performance Testing
- Attitude Heading and Reference Systems
- Autopilot

<sup>1</sup> Full Range is defined as "from negative to positive full input angle."

<sup>2</sup> Nonlinearity is specified as deviation of output referenced to a best fit straight line, independent of misalignment.

<sup>3</sup> Custom bandwidth available. Consult factory for additional options.

## Output Polarity



PIN-OUT	
1	+12 to +18 VDC
2	-12 to -18 VDC
3	COMMON
4	OUTPUT SIGNAL, X AXIS
5	OUTPUT SIGNAL RTN, X AXIS
6	OUTPUT SIGNAL, Y AXIS
7	OUTPUT SIGNAL RTN, Y AXIS
8-13	N/C

## Outline Diagram

