



**BEST OF CLASS**

The Jewell LCA Series Accelerometer is a general-purpose  $\pm 0.5G$  to  $\pm 5G$  device designed for industrial, commercial and aerospace sensing requirements.

#### LCA-100 Series Accelerometer Specifications

##### Performance

Input Range, g (Note 1)	$\pm 0.50$	$\pm 2.0$	$\pm 5.0$
Full Range Output (FRO), volts $\pm 0.5\%$	$\pm 5.0$	$\pm 5.0$	$\pm 5.0$
Nonlinearity, % FRO max (Note 2)	0.05%	0.05%	0.05%
Scale Factor, volts/g nominal	10.0	2.50	1.00
Scale Factor Temp. Sens, PPM/ $^{\circ}C$ max	180	180	180
Bias, g max	0.010	0.010	0.010
Bias Temperature Sens, micro g/ $^{\circ}C$ max	100	100	100
Natural Frequency, Hz min (Note 3)	60	60	60
Bandwidth (-3 dB), Hz min	60	60	60
Input Axis Misalignment, $^{\circ}$ max	1.0	1.0	1.0
Resolution and Threshold, micro g max	100	100	100

##### Electrical

Input Voltage, VDC	$\pm 12$ to $\pm 18$
Input Current, mA nominal	$\pm 25$
Output Impedance, ohms nominal	100
Noise, Vrms max	0.005

##### Environmental

Operating Temp Range	$-55$ to $+85^{\circ}C$
Survival Temp Range	$-60$ to $+90^{\circ}C$
Shock	100g, 11 msec, $\frac{1}{2}$ sine
Seal	Epoxy

**NOTE 1:** Full Range is defined as "from negative to positive full input acceleration."

**NOTE 2:** Referenced to a best-fit straight line independent of misalignment.

**NOTE 3:** Output phase angle =  $-90^{\circ}$ .

#### Applications

- Aircraft Flight Controls
- Fatigue Monitoring
- Performance Testing

Supplied in partnership with Jewell Instruments



### Polaron Components Limited

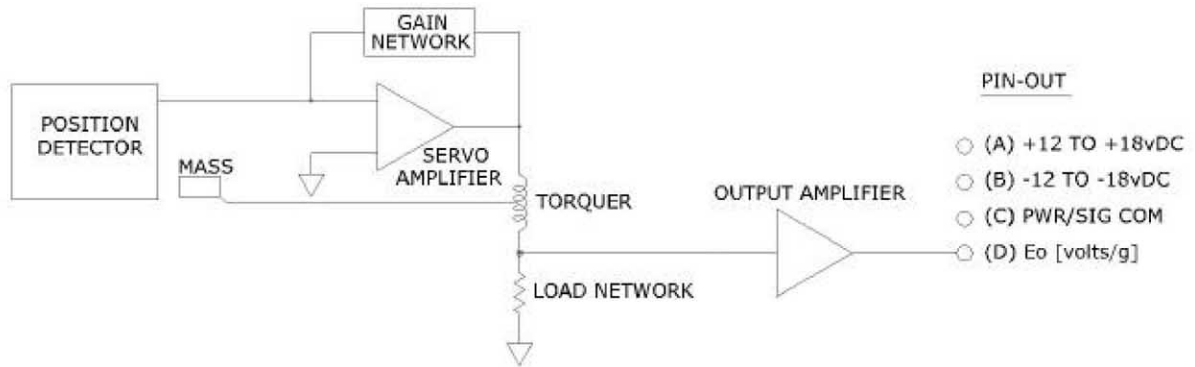
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## LCA-100 Series Accelerometer

### Block Diagram



### Outline Diagram

