



**BEST OF CLASS**

The Jewell LCF Series Accelerometer is a  $\pm 0.5G$  to  $\pm 5G$  device designed for applications where high levels of shock and vibration are present. LCF units are characterized by excellent turn on repeatability and very low hysteresis.

#### LCF-200 Series Flexure Suspension Servo Fluid Damped 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	100	100	100
Bias, g max	0.005	0.005	0.005
Bias Temperature Sens, micro g/ $^{\circ}C$ max	100	100	100
Natural Frequency, Hz min (Note 3)	30	30	30
Bandwidth (-3 dB), Hz min	30	30	30
Input Axis Misalignment, $^{\circ}$ max	1.0	1.0	1.0
Resolution and Threshold, micro g max	10	10	10

##### Electrical

Input Voltage, VDC	$\pm 12$ to $\pm 18$
Input Current, mA nominal	$\pm 15$
Output Impedance, ohms nominal	100
Noise, Vrms max	0.002

##### Environmental

Operating Temp Range	$-40$ to $+80^{\circ}C$
Survival Temp Range	$-60$ to $+90^{\circ}C$
Vibration	20 grms
Shock	1000g, 1 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

- Geophysical Testing
- Railcar Acceleration Control
- Platform Orientation

sales@jewellinstruments.com    www.jewellinstruments.com    800 227-5955

Supplied in partnership with Jewell Instruments



### Polaron Components Limited

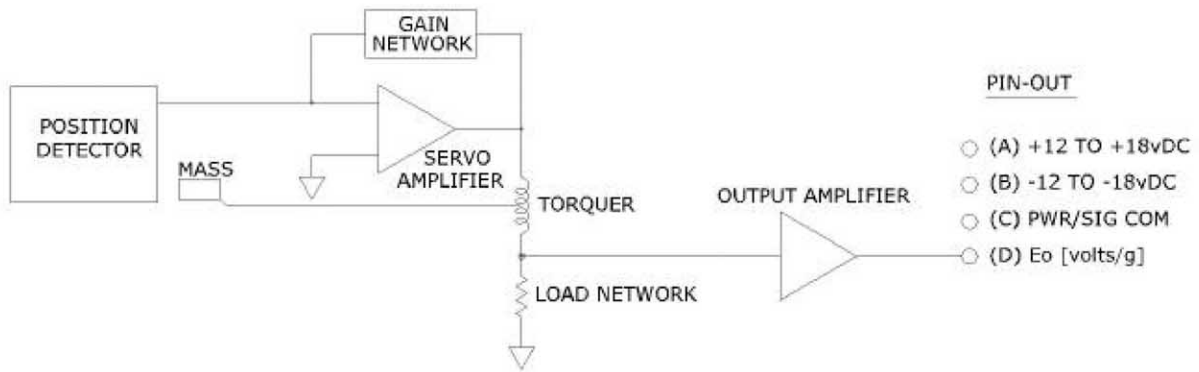
26 Greenhill Crescent, Watford Business Park, Watford, Herts, WD18 8XG. UK

Tel: +44 (0)1923 495401. Fax: +44 (0)1923 495416. E-mail: components@polaron.co.uk Web: www.polaron.co.uk

BS EN ISO 9001 : 2000 - ISO Number FM 70209

## LCF-200 Series Flexure Suspension Servo Fluid Damped Accelerometer

### Block Diagram



### Outline Diagram

