

# LCF-200 Series Accelerometer

**Input Range of  $\pm 0.5g$  to  $\pm 5.0g$   
with exceptional bias and  
scale factor.**

The Jewell **LCF-200 Series** Flexure Suspension Fluid Damped 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.

## Features & Benefits

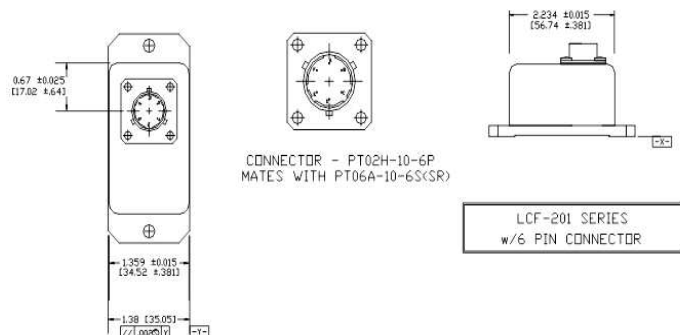
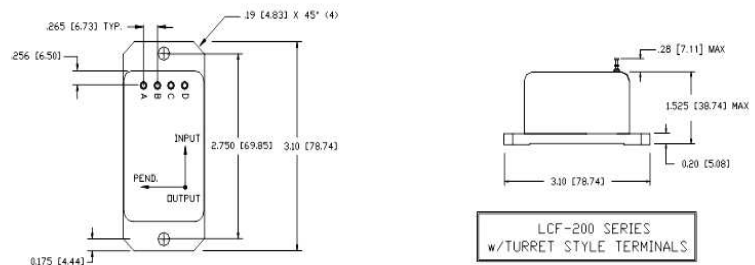
- $\pm 0.5g$  to  $\pm 5.0g$  Full Range
- Filtering 5 to 100 Hz Bandwidth
- Exceptional Bias & Scale Factor
- High Level  $\pm V_{dc}$  Output
- 1,500g Shock Capability

## Applications

- Geophysical Testing
- Railcar Acceleration Control
- Railcar Deceleration Control
- Ocean Buoy Acel Sensing
- Aircraft Stability Control
- Aircraft Flight Testing
- Vehicle Roadway Profiling



**Dimensional Diagram: LCF-200 Series Accelerometer**



**Pin Out: LCF-200 Series Accelerometer**

Pin A	+12 to +18 VDC
Pin B	-12 to -18 VDC
Pin C	Power/Signal Common
Pin D	E <sub>o</sub> (Volts/g)

## LCF-200 Series Accelerometer Specifications

### STATIC/DYNAMIC

Input Range, g:	±0.5	±1	±2	±5
Full Range Output (FRO -Note 1) VDC ±0.5%:	±5.00	±5.00	±5.00	±5.00
Scale Factor, Volts/g, nominal:	10	5	2.5	1
Scale Factor Temp. Sensitivity (SFTS), PPM /°C maximum:	100	100	100	100
Natural Frequency, Hz nominal (Note 3):	30.00	30.00	30.00	30.00
Bandwidth (-3 dB), Hz nominal:	30.0	30.0	30.0	30.0
Output Axis Misalignment, ° maximum:	0.71	0.71	0.71	0.71
Pendulous Axis Misalignment, ° maximum:	0.71	0.71	0.71	0.71
Bias, g range:	±0.005	±0.005	±0.005	±0.005
Bias Temperature Sensitivity, µg /°C maximum:	50	50	50	50
Resolution and Threshold, µg maximum:	1	1	1	1

### ELECTRICAL

Number of Axes:	1
Input Voltage Range, (VDC):	±12 to ±18
Input Current, mA, max:	15
Output Impedance, Ohms, nom:	100
Noise, grms, maximum:	0.001

### ENCLOSURE

Weight oz:	4
Seal:	MIL-STD-202, Mtd. 112

### ENVIRONMENTAL

Operating Temp Range:	-40°C to +80°C
Storage Temp Range:	-40°C to +90°C
Vibration grms:	20
Shock:	1000 g, 1 msec, ½ sine

- Notes:
- 1 - Full range is defined as "from negative full input acceleration."
  - 2 - Referenced to best-fit straight line independent of misalignment.
  - 3 - Output phase angle = -90°.

## How to Order

LCF-200-.5g	458200-001
LCF-200-1.0g	458200-004
LCF-200-2.0g	458200-002
LCF-200-5.0g	458200-003