

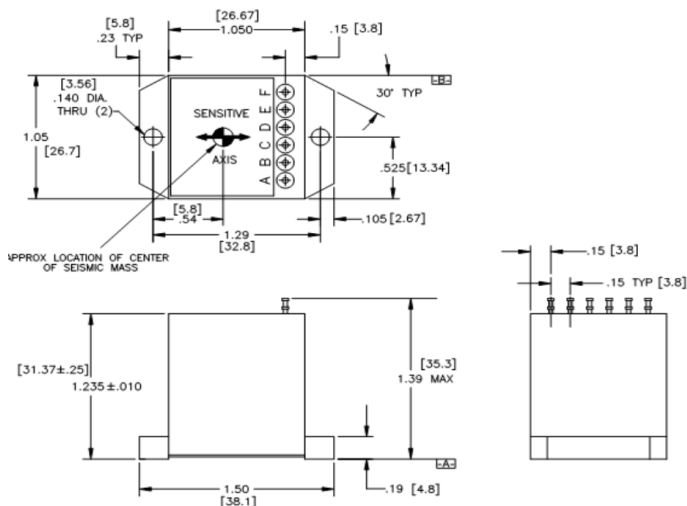
## LSMP

### Linear Accelerometer

If space is a concern, the Jewell LSMP Series accelerometer is the solution for you. The LSMP offers equivalent features to the LCA in a smaller package - an approximately 1" cube. Its wide input range and bandwidth features meet the demanding needs of a variety of aerospace applications.

#### FEATURES:

- $\pm 0.5g$  to  $\pm 20.0g$  Full Range
- Filtering up to 200 Hz Bandwidth
- with 0.6 Damping
- Satellite Application Reliability
- Better than 20  $\mu g$  Res at 10g Full Scale
- $-55^{\circ}C$  to  $+95^{\circ}C$  Operating Temp Range



Dimensions: in [mm]



#### APPLICATIONS:

- Satellite Nutation Sensing
- Radar Leveling
- Train Braking and Banking
- Autopilot Systems
- Train Performance Testing
- Performance Testing
- Wind Shear Detection Systems
- Mars Rover
- Thermal Vacuum Chamber (product) Testing

#### PIN OUTS

<b>A</b>	+VDC POWER
<b>B</b>	POWER/SIGNAL COMMON
<b>C</b>	-VDC
<b>D</b>	E <sub>o</sub> (Volts/g)
<b>E</b>	CURRENT OUTPUT
<b>F</b>	SELF TEST (OPTIONAL)



# PERFORMANCE SPECIFICATIONS

## PERFORMANCE

<b>INPUT RANGE (g)<sup>1</sup></b>	<b>±0.5</b>	<b>±1.0</b>	<b>±2.0</b>	<b>±5.0</b>	<b>±10.0</b>	<b>±20.0</b>
<b>FULL RANGE OUTPUT (FRO V± 1.0%)</b>	<b>±5.0</b>					
<b>NON LINEARITY (%FRO max)<sup>2</sup></b>	0.05	0.05	0.05	0.10	0.10	0.10
<b>SCALE FACTOR (V/g, nominal)</b>	10.0	5.0	2.5	1.0	0.5	0.25
<b>SCALE FACTOR TEMP. SENSOR (PPM/°C, max)</b>	<b>200</b>					
<b>BIAS (g, max)</b>	0.050	0.010	0.010	0.010	0.020	0.050
<b>BIAS TEMPERATURE (µg/°C, max)</b>	50	50	50	100	100	100
<b>BANDWIDTH (-3db, Hz, nom)</b>	70	100	100	100	140	160
<b>INPUT-AXIS MISALIGNMENT (° max)</b>	<b>±1.0</b>					
<b>RESOLUTION &amp; THRESHOLD (µg, max)</b>	10	10	10	10	20	50

## ELECTRICAL

<b>INPUT VOLTAGE RANGE (VDC, nominal)<sup>3</sup></b>	<b>±12 to ±18</b>					
<b>INPUT CURRENT (mA, nom)</b>	<b>15</b>					
<b>OUTPUT IMPEDANCE (Ohms, nom)</b>	10k	5k	2.5k	5k	2.5k	2.5k
<b>NOISE (Vrms max)</b>	<b>0.005</b>					

## ENVIRONMENTAL

<b>OPERATING TEMPERATURE RANGE</b>	<b>-55° to +95°C</b>
<b>SURVIVAL TEMPERATURE RANGE</b>	<b>-65° to +105°C</b>
<b>SHOCK</b>	<b>100 grms 0.011 sec, ½ sine</b>
<b>SEAL</b>	<b>MIL-STD 202, Method 112. IP 65</b>
<b>WEIGHT. oz (grams)</b>	<b>2 oz (57g)</b>

Notes:

1. Full range is defined as “from negative full input acceleration to positive full input acceleration.”
2. Nonlinearity is specified as deviation of output referenced to a best fit straight line, independent of misalignment.
3. Unit Power connections can be easily adapted for operation from single-ended, floating power supplies of 24 to 36 Volts DC

## HOW TO ORDER

	<b>MODEL #</b>	<b>PART #</b>
<b>±0.5g</b>	LSMP-0.5g	02550277-001
<b>±1g</b>	LSMP-1g	02550277-002
<b>±2g</b>	LSMP-2g	02550277-003
<b>±5g</b>	LSMP-5g	02550277-004
<b>±10g</b>	LSMP-10g	02550277-005
<b>±20g</b>	LSMP-20g	02550120-000

850 Perimeter Road Manchester, NH 30103 USA

SENSORS: 800.227.5955

www.jewellinstruments.com | sensors@jewellinstruments.com

© Jewell Instruments 2025

**Jewell**  
**Instruments**

**ISO9001**  
CERTIFIED