

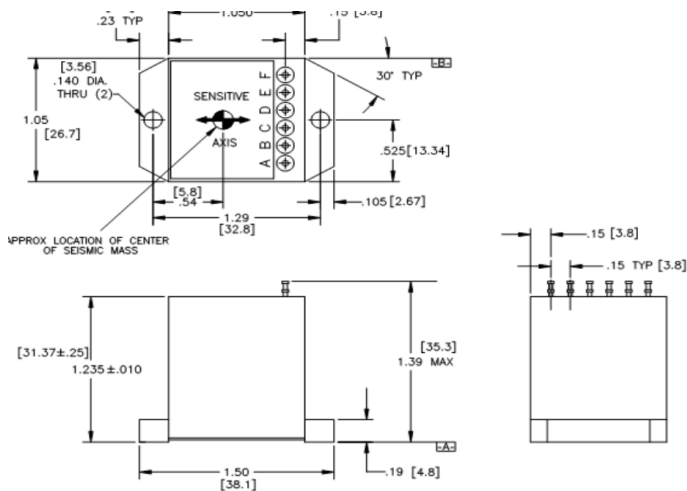
LSMP

Linear Accelerometer

If space is a concern, the Jewell LSM Series accelerometer is the solution for you. The LSM offers equivalent features to the LSA 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 μg 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

A	+VDC POWER
B	POWER/SIGNAL COMMON
C	-VDC
D	Eo (Volts/g)
E	CURRENT OUTPUT
F	SELF TEST (OPTIONAL)



PERFORMANCE SPECIFICATIONS

PERFORMANCE

INPUT RANGE (rad/sec²)¹	±0.5	±1.0	±2.0	±5.0	±10.0	±20.0
FULL RANGE OUTPUT (FRO V± 1.0%)	±5.0					
NON LINEARITY (%FRO max)²	0.05	0.05	0.05	0.10	0.10	0.10
SCALE FACTOR (V/g, nominal)	10.0	5.0	2.5	1.0	0.5	0.25
SCALE FACTOR TEMP. SENSOR (PPM/°C, max)	200					
BIAS (g, max)	0.050	0.010	0.010	0.010	0.020	0.050
BIAS TEMPERATURE (µg/°C, max)	50	50	50	100	100	100
BANDWIDTH (-3db, Hz, nom)	70	100	140	100	140	160
INPUT-AXIS MISALIGNMENT (° max)	±1.0					
RESOLUTION & THRESHOLD (µg, max)	10	10	10	10	20	50

ELECTRICAL

INPUT VOLTAGE RANGE (VDC, nominal)⁴	±12 to ±18					
INPUT CURRENT (mA, nom)	10.0					
OUTPUT IMPEDANCE (Ohms, nom)	10k	5k	2.5k	5k	2.5k	2.5k
NOISE (mV, rms max)	5.0					

ENVIRONMENTAL

OPERATING TEMPERATURE RANGE	-55° to +95°C
SURVIVAL TEMPERATURE RANGE	-65° to +105°C
VIBRATION	100 grms
SEAL	MIL-STD 202, Method 112. IP 65
WEIGHT. oz (grams)	2 oz (57g)

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. Output phase angle = -90°.
4. Unit Power connections can be easily adapted for operation from single-ended, floating power supplies of 24 to 36 Volts DC

HOW TO ORDER

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