

LSOC/LSOP: $\pm 5V$ OUTPUT

The Jewell LSOC/LSOP Series fluid damped, flexure suspension, servo inclinometer is a precision inertial grade sensing instrument and is Jewell's most robust solution designed to meet the needs of a variety of commercial, industrial, and aerospace applications.

APPLICATIONS:

- Steel Processing
- Heavy Construction
- Structural Monitoring
- Railway Control & Analysis

PERFORMANCE SPECIFICATIONS

STATIC/DYNAMIC

INPUT RANGE (°)	± 1	± 3	± 14.5	± 30	± 45	± 90
FULL RANGE OUTPUT (VDC) $\pm 1\%^1$	± 5					
NONLINEARITY (% FRO) ² max	0.05	0.05	0.02	0.02	0.02	0.05
SCALE FACTOR (V/g) nominal	286.5	95.5	20.0	10.0	7.071	5.0
SCALE FACTOR TEMP. SENSITIVITY (PPM/°C max)	400	300	100	60	60	60
BANDWIDTH (-3dB) Hz, nominal	0.5	2	15	20	20	40
TRANSVERSE AXIS MISALIGNMENT, ° max	0.1	0.15	0.25	0.5	1.00	1.00
OUTPUT AT 0° TILT (V)	± 0.1	± 0.04	± 0.02	± 0.02	± 0.02	± 0.02
0° OUTPUT TEMP. SENSITIVITY (Volts/°C) max	0.005	0.003	0.001	0.0005	0.0004	0.0003
RESOLUTION & THRESHOLD (μ radians) max	1					

NOTES:

1. Full Range is defined "from negative full input angle to positive full input angle."
2. Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment.

PIN OUTS

A	RED	SUPPLY +15VDC
B	WHITE	POWER/SIGNAL COMMON
C	BLACK	SUPPLY -15VDC
D	ORANGE	$\pm 5V$ OUTPUT
E	N/C	SELF TEST RETURN
F	BLUE	SELF TEST

*Specifications subject to change without notice on account of continued product development



PRODUCT SPECIFICATIONS

ELECTRICAL

NUMBER OF AXES	1
INPUT VOLTAGE RANGE (VDC)	±12 to ±18
INPUT CURRENT (mA, max)	15
OUTPUT IMPEDANCE (Ohms) nominal	100
NOISE (Vrms, max)	0.002

ENVIRONMENTAL

OPERATING TEMP. RANGE	-18° to +71°C
STORAGE TEMP. RANGE	-40° to +71°C
VIBRATION	20 grms
SHOCK	1500g, 0.5 msec, ½ sine

ENCLOSURE

HOUSING MATERIAL	Anodized Aluminum
WEIGHT	13 oz (368.5 g)
PROTECTION CLASS (per IEC 529)	IP68
FASTENER SIZE³	#8-32 (M4X0.7)
TORQUE FOR STEEL FASTENERS⁴	10 inch-lbs (1.0nM)
JEWELL CONNECTOR PART #	62101011-000
SURFACE FLATNESS³	0.003 (0.0765mm)

NOTES:

- 3. Jewell Instruments recommendations
- 4. Manufacture is Amphenol or equivalent

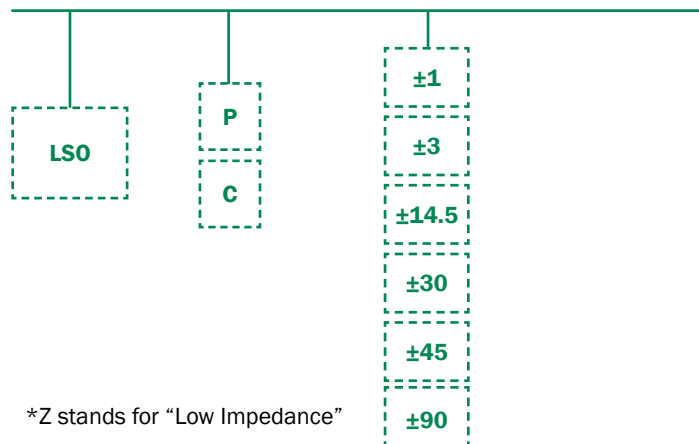
CUSTOM CAPABILITIES

- Internal temperature sensor and thermal modeling for the highest levels of accuracy over a wide temperature range
- Available in LSR Series package configuration for applications requiring a more compact solution
- Factory set zero biasing for non-horizontal measurements
- Solder terminals and flying leads in place of military connector
- Custom input ranges from ±0.5° to ±90° available
- Custom output impedances available
- Custom bandwidths available on certain ranges

ORDERING INFORMATION

HOW TO ORDER Model Numbers are comprised of the series, the connector option, and the input range.

SERIES TERMINATION - INPUT RANGE - Z* - ROHS



*Z stands for "Low Impedance"

	TERMINATION	MODEL #	PART #
±1	PIN	LSOP-1-Z-ROHS	02550412-201-ROHS
	CONNECTOR	LSOC-1-Z-ROHS	02550412-206-ROHS
±3	PIN	LSOP-3-Z-ROHS	02550412-202-ROHS
	CONNECTOR	LSOC-3-Z-ROHS	02550412-207-ROHS
±14.5	PIN	LSOP-14.5-Z-ROHS	02550412-203-ROHS
	CONNECTOR	LSOC-14.5-Z-ROHS	02550412-208-ROHS
±30	PIN	LSOP-30-Z-ROHS	02550412-204-ROHS
	CONNECTOR	LSOC-30-Z-ROHS	02550412-209-ROHS
±45	PIN	Not Available	Not Available
	CONNECTOR	LSOC-45-Z-ROHS	02550412-211-ROHS
±90	PIN	LSOP-90-Z-ROHS	02550412-205-ROHS
	CONNECTOR	LSOC-90-Z-ROHS	02550412-210-ROHS