

Schaevitz® LSI Series

DC-Operated, Gravity-Referenced
Servo Inclinometer

Features

- Fully self-contained - connect to a DC power source and a readout or control device for a complete operating system
- High-level DC output signal proportional to sine of the angle of tilt
- $\pm 14.5^\circ$, $\pm 30^\circ$ & $\pm 90^\circ$ ranges available

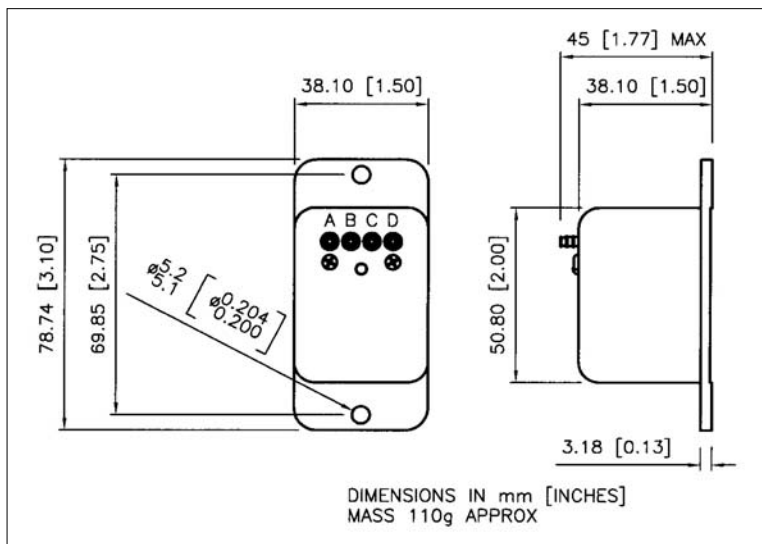
Applications

- Level control of machines and structures
- Safety control of cranes and lifting equipment
- Civil engineering studies
- Marine ballast transfer systems

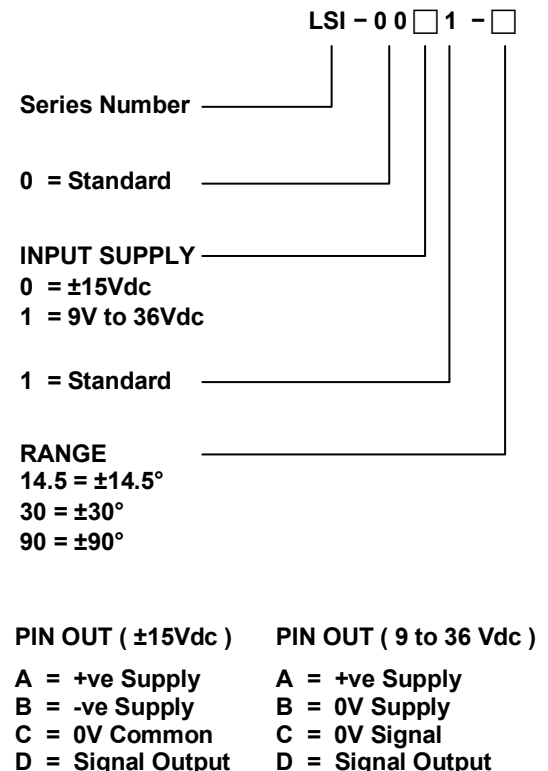


Description

The LSI Series is a precision gravity referenced servo inclinometer that can be used for a wide variety of industrial and military applications. Versions are available in a choice of angular ranges and power supply options. Electrical terminations are via solder posts.



DESIGNATION & ORDERING CODE



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Environmental Characteristics

Operating Temperature Range	°C	-20 to 80
Survival Temperature Range	°C	-40 to 90
Shock Survival		500g, 0.5msec, ½ sine
Environmental Sealing		IP64

Specifications @ 20°C

		14.5°	30°	90°
Excitation Voltage options	Volts dc		±15, +9 to +36	
Power Consumption	W (max)	±15V version = ±0.6	+9V to +36V version = 1.5	
Full Range Output (FRO) options (see note 1)	Volts dc		±5 ±0.5%	
Output Impedance	Ω		less than 10	
Output Noise	µV/√Hz (max)	±15V version = 2	+9V to +36V version = 20	
Non-Linearity (see note 2)	% FRO (max)	0.02	0.02	0.05
Non-Repeatability	% FRO (max)		0.004	
-3 dB Frequency (Option of 30Hz)	Hz		5	
Cross-axis sensitivity (see note 3)	% FRO (max)		± 1	
Zero Offset (see note 4)	Volts dc (max)		± 0.050	
Thermal Zero Shift	%FRO/°C (max)		± 0.003	
Thermal Sensitivity	%Reading/°C (max)		± 0.01	

Notes

1. Full Range Output is defined as the full angular excursion from positive to negative, i.e. ±90° = 180°
2. Non-linearity is determined by the method of least squares
3. Cross-axis Sensitivity is the output of unit when tilted to full range angle in cross-axis.
4. Zero offset is specified under static conditions with no vibration inputs

How to Order

Specify model type, input supply and range.

e.g.

LSI-0001-30 = ±15Vdc supply, ±30°

LSI-0011-90 = +9Vdc to +36Vdc supply, ±90° degree