



## LSOX-L Analog Inclinometer

### Features

- Extremely Rugged
- High Accuracy
- Temperature Compensation Available
- 4-20mA Output
- +20 to +30 VDC Power Input
- RoHS Compliant
- CE Certification Available



### Application

- High-precision Geotech
- Oil and Gas, Riser Tilt Monitoring
- Railroad MOW Equipment
- Pavement Profiling Rigs
- Vehicle Wheel Alignment
- Robotics

### Introduction

The LSOX Series Inclinometer is a rugged, high performance, single-axis tilt sensor designed for peak performance in extreme conditions. The fluid damped mechanism delivers superior noise rejection in high shock and vibration environments as well as excellent output stability. Units are available with a 6-pin connector, pin-terminals or flying leads. Available outputs include +/-5V, 0-5V and 4-20mA. Custom input ranges, filters and temperature compensation are also available on request.

### Performance specifications

#### Static/dynamic

Input range (°)	±1	±3	±14.5	±30	±60	±90
Full Range Output (mA) <sup>1</sup>	4-20	4-20	4-20	4-20	4-20	4-20
Nonlinearity (% FRO) <sup>2</sup>	0.05	0.03	0.03	0.03	0.03	0.05
Scale Factor (mA/g nom.)	458.4	152.9	32.0	16.0	9.2	8.0
Scale Factor Sensitivity (PPM/°C max)	350	300	100	60	60	60
Bandwidth, Hz (-3 dB)	0.5	2	15	20	30	30
Transverse Axis Misalignment (° max)	±0.25	±0.25	±0.5	±0.5	±0.5	±0.5
0° Output nominal (mA)	12 ±0.6	12 ±0.6	12 ±0.3	12 ±0.3	12 ±0.3	12 ±0.3
0° Output Temp. Sensitivity (mA/°C max)	0.024	0.01	0.002	0.001	0.001	0.0008
Resolution & Threshold (µradians) <sup>3</sup>	1	1	1	1	1	1

#### Electrical

Number of Axes	1
Input Voltage Range, (VDC)	+20 to +30
Input Current, mA, max	40
Noise, µArms, maximum	0.002
Mass (grams)	370

#### Environmental

Operating Temp Range	-40°C to +80°C
Storage Temp Range	-60°C to +90°C
Shock	1500g, 0.5 msec, ½ sine

#### Enclosure

Seal	IP66
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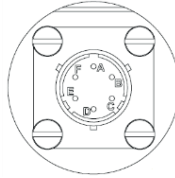
**Notes**

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.
3. Full Resolution is achieved with noise reduction techniques.

**Pin description**

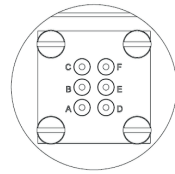
**Connector Version**

Pin	Function
A	Power in
B	Common
C	N/C
D	Signal out
E	N/C
F	N/C



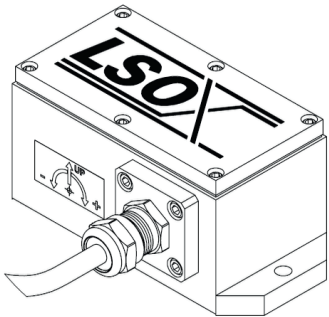
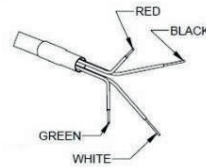
**Pin Terminal Version**

Pin	Function
A	Power in
B	Common
C	N/C
D	Signal out
E	N/C
F	N/C



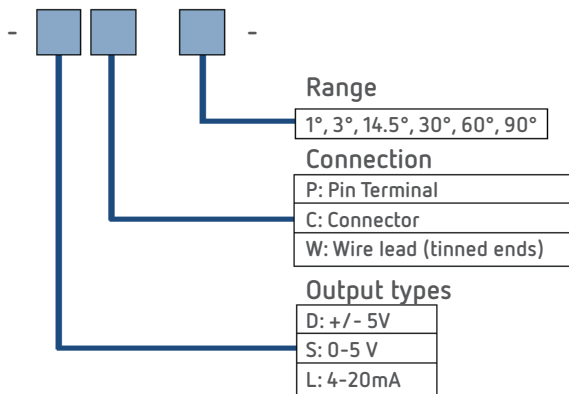
**Wired Version**

Color	Function
Red	Power in
White	Common
Black	N/C
Green	Signal out

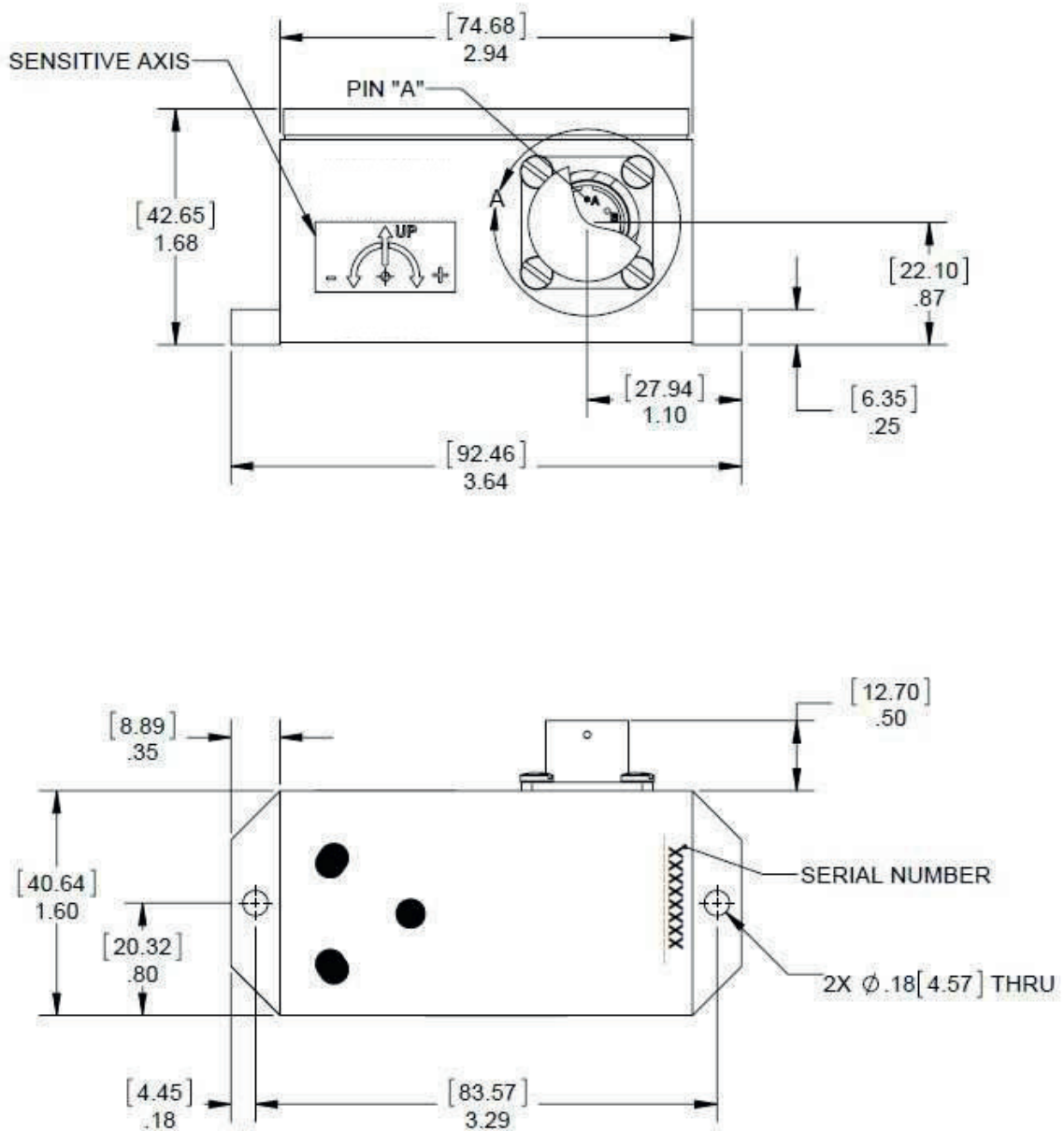


**Ordering information**

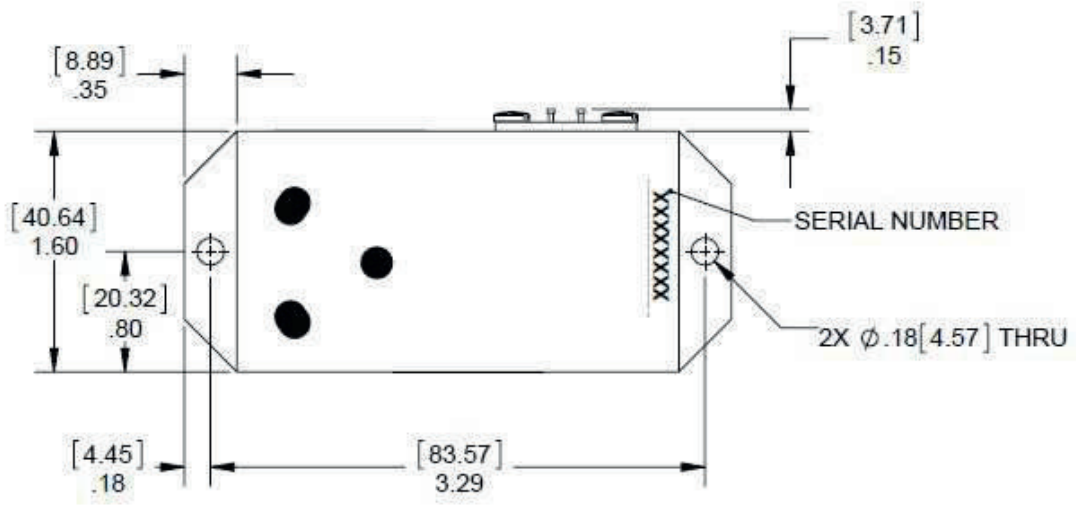
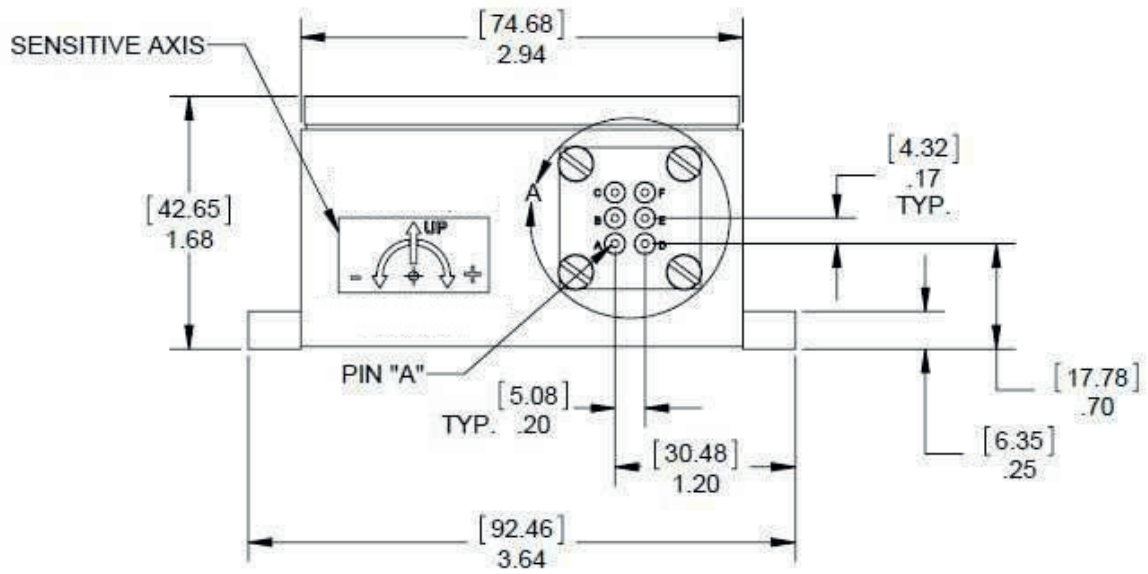
**Model LSOX**



■ Outline Drawing: Connector version



■ Outline Drawing: Pin Terminal version



■ Outline Drawing: Wired version

