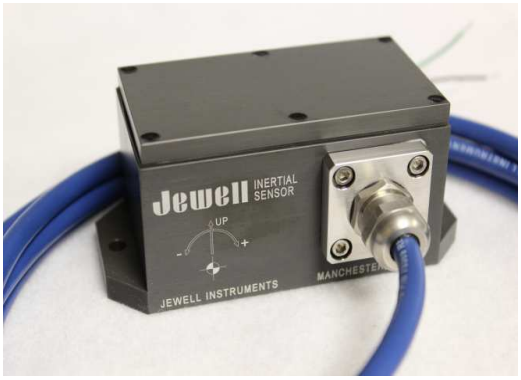
LSOX-L

LSOX-L- 4-20mA - Precision Fluid Damed Inclinometer

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.



Features

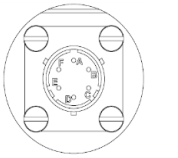
- ***Extremely Rugged***
- ***High Accuracy***
- ***Temperature Compensation Available***
- ***4-20mA Output***
- ***+20 to +30 VDC Power Input***
- ***RoHS Compliant***
- ***CE Certification Pending***

Applications

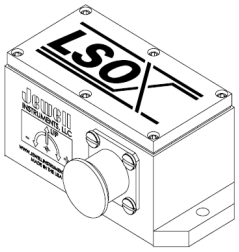
- ***High-precision Geotech***
- ***Oil and Gas/Riser Tilt Monitoring***
- ***Railroad MOW Equipment***
- ***Pavement Profiling Rigs***
- ***Vehicle Wheel Alignment***
- ***Robotics***

LSOX RoHS COMPLIANT

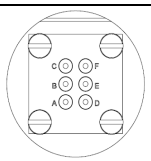
Connector Version



PIN	FUNCTION
A	POWER IN
B	COMMON
C	N/C
D	SIGNAL OUT
E	N/C
F	N/C

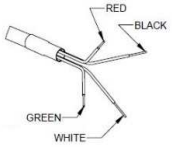


Pin Terminal Version



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

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LSOX-L

LSOX-L- 4-20mA - Precision Fluid Damed Inclinometer

STATIC/DYNAMIC

Input Range (deg.)	±1	±3	±14.5	±30	±60	±90
Full Range Output (mA)[1]	4-20	4-20	4-20	4-20	4-20	4-20
Non-linearity (% FRO)[2]	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)[3]	1	1	1	1	1	1

[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.

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

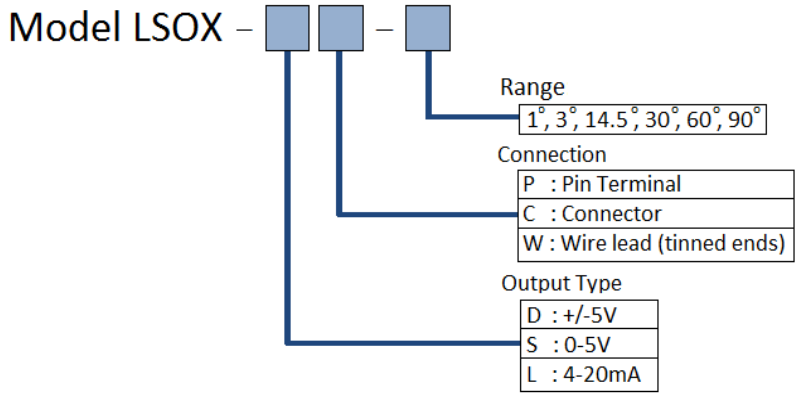
ENVIRONMENTAL

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

Order Code



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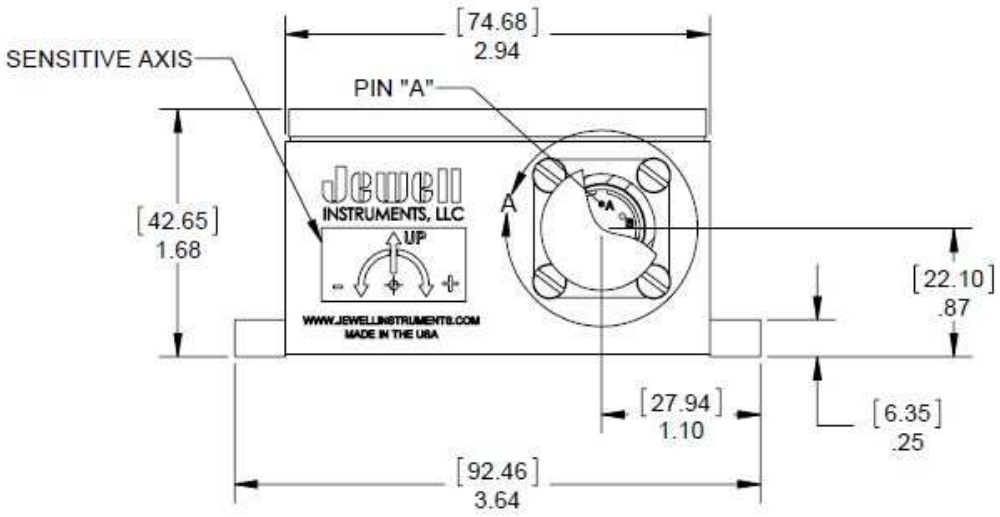
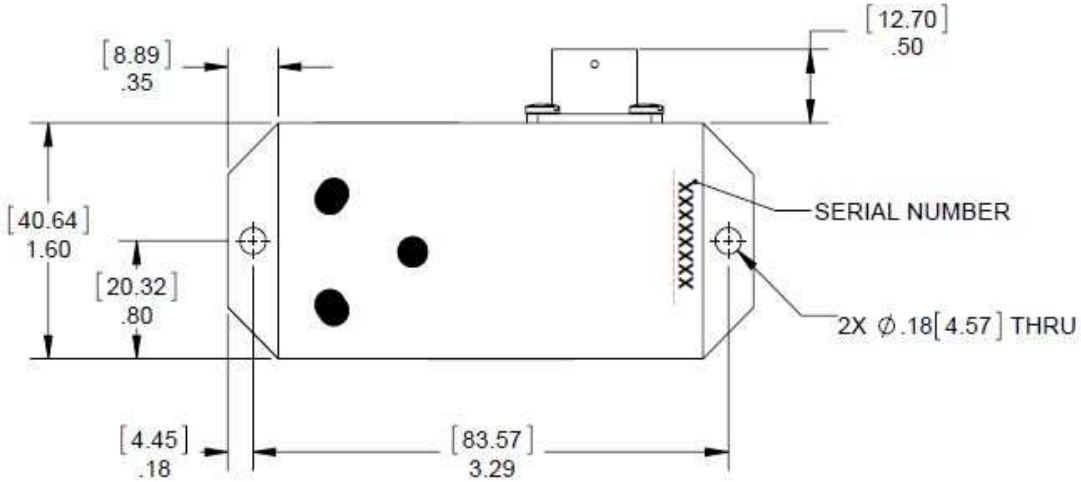
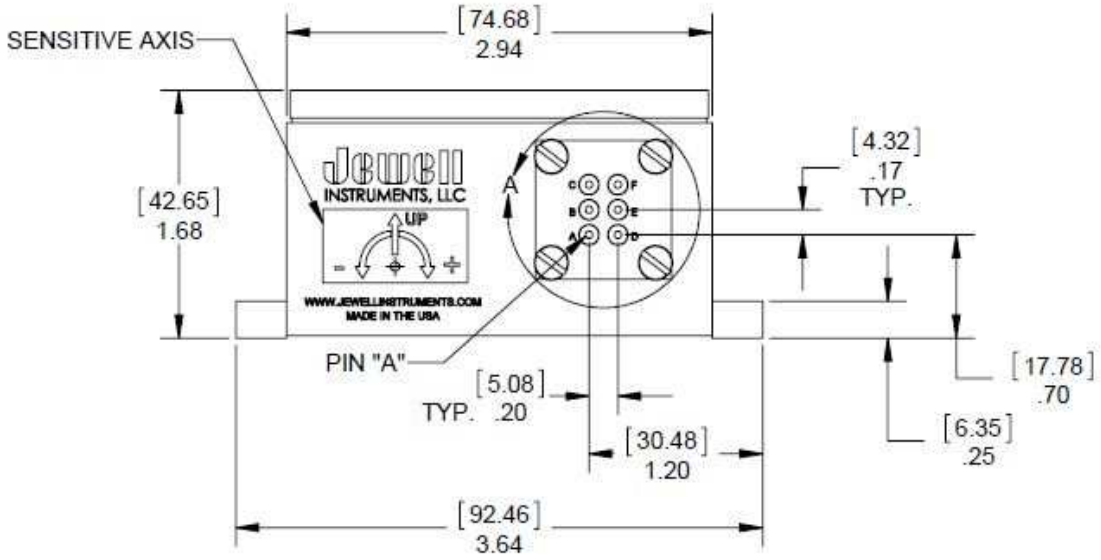
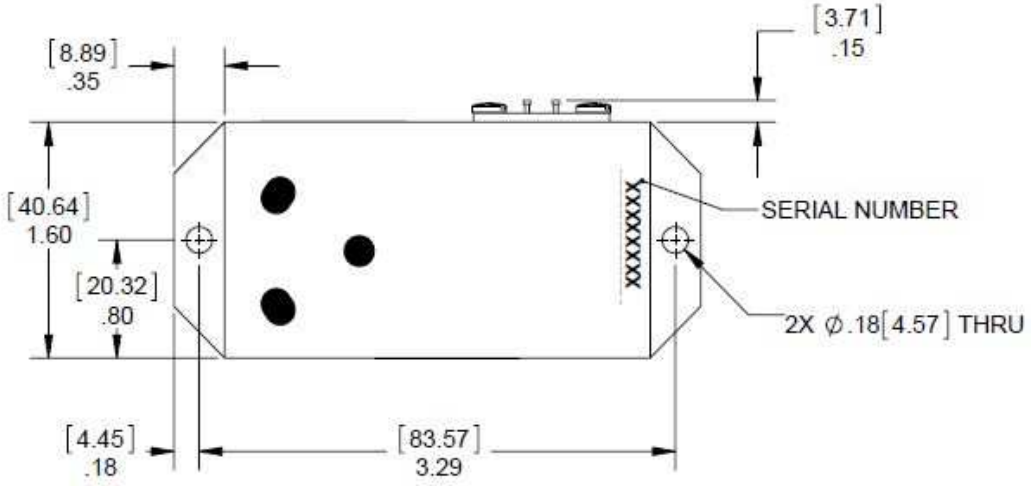
Outline Drawing: Connector Version



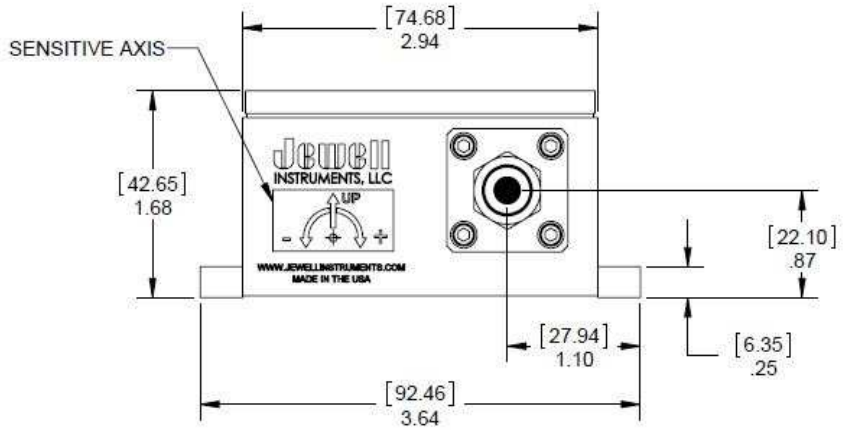


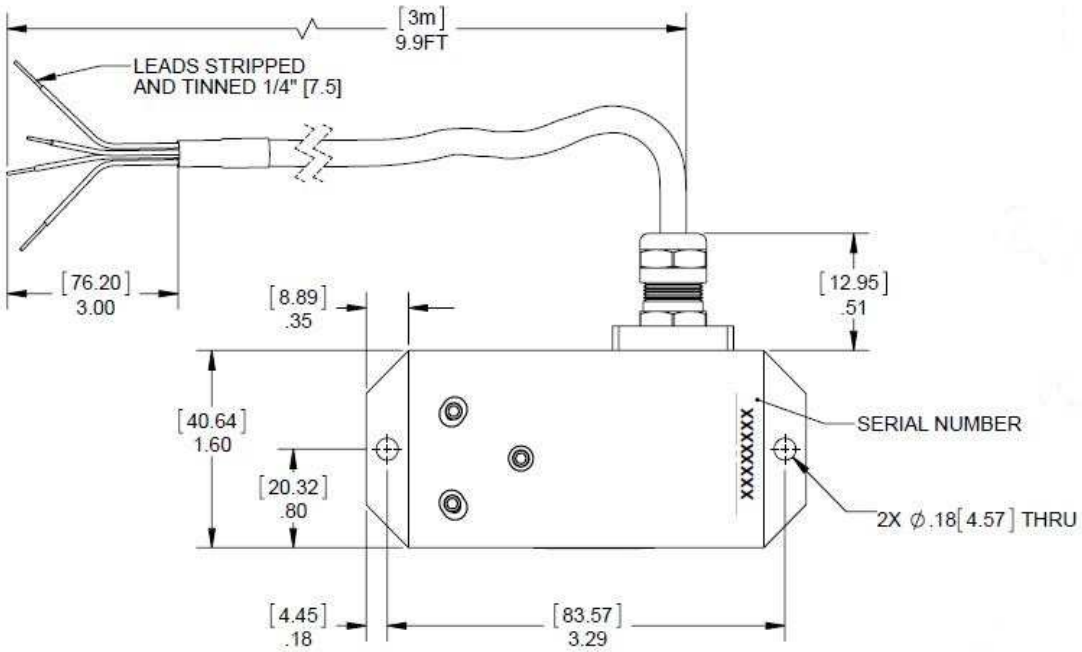
Outline Drawing: Pin Terminal Version





Outline Drawing: Wired Version

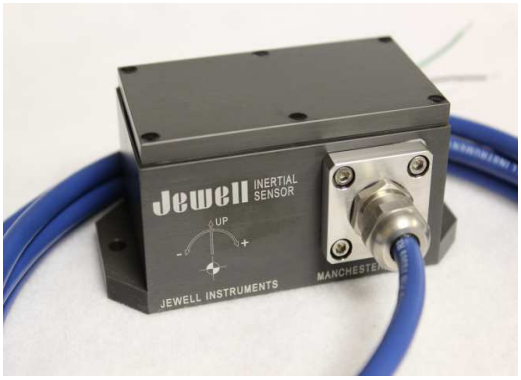




LSOX-D

LSOX-D- ± 5V DC out - Precision Fluid Damed Inclinometer

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.



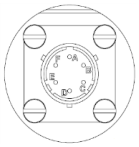
Features

- ***Extremely Rugged***
- ***High Accuracy***
- ***Temperature Compensation Available***
- ***+/-5V Output***
- ***±12 to ±18 Volts DC Power Input***
- ***RoHS Compliant***
- ***CE Certification Pending***

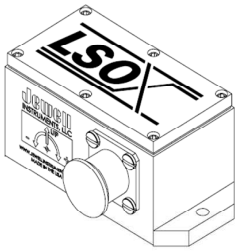
Applications

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

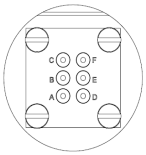
Connector Version



PIN	FUNCTION
A	+POWER IN
B	COMMON
C	- POWER IN
D	SIGNAL OUT
E	N/C
F	N/C

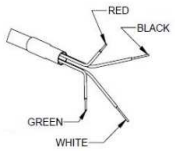


Pin Terminal Version



PIN	FUNCTION
A	+POWER IN
B	COMMON
C	- POWER IN
D	SIGNAL OUT
E	N/C
F	N/C

Wired Version



COLOR	FUNCTION
RED	+POWER IN
WHITE	COMMON
BLACK	-POWER IN
GREEN	SIGNAL OUT

LSOX RoHS COMPLIANT

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LSOX-D

LSOX-D- ± 5V DC out - Precision Fluid Damed Inclinometer

STATIC/DYNAMIC

Input Range (deg.)	±1	±3	±14.5	±30	±60	±90
Full Range Output (VDC)[1]	±5	±5	±5	±5	±5	±5
Non-linearity (% FRO)[2]	0.05	0.02	0.02	0.02	0.02	0.05
Scale Factor (V/g nom.)	285.5	95.5	20.0	10.0	5.8	5.0
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 (VDC)	±0.10	±0.04	±0.02	±0.02	±0.02	±0.02
0° Output Temp. Sensitivity (V/°C max)	0.015	0.005	0.001	0.0005	0.0004	0.0003
Resolution & Threshold (µradians)[3]	1	1	1	1	1	1

[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.

ELECTRICAL

Number of Axes:	1
Input Voltage Range, (VDC):	±12 to ±18
Input Current, mA, max:	40
Noise, Vrms, maximum:	0.002
Output Impedance (ohms)	1
Mass (grams)	370

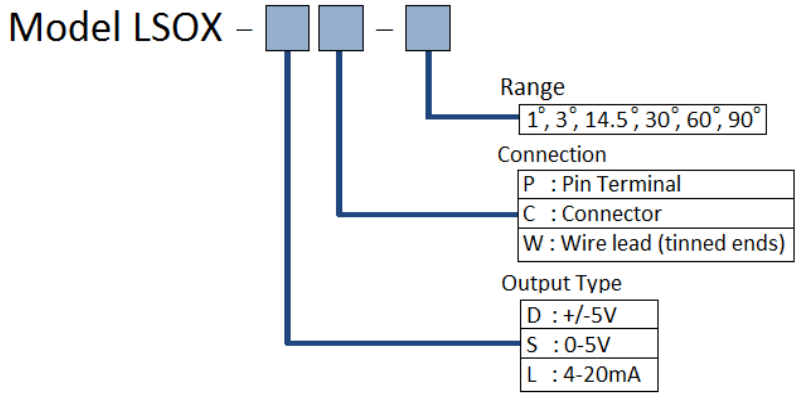
ENVIRONMENTAL

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

Order Code



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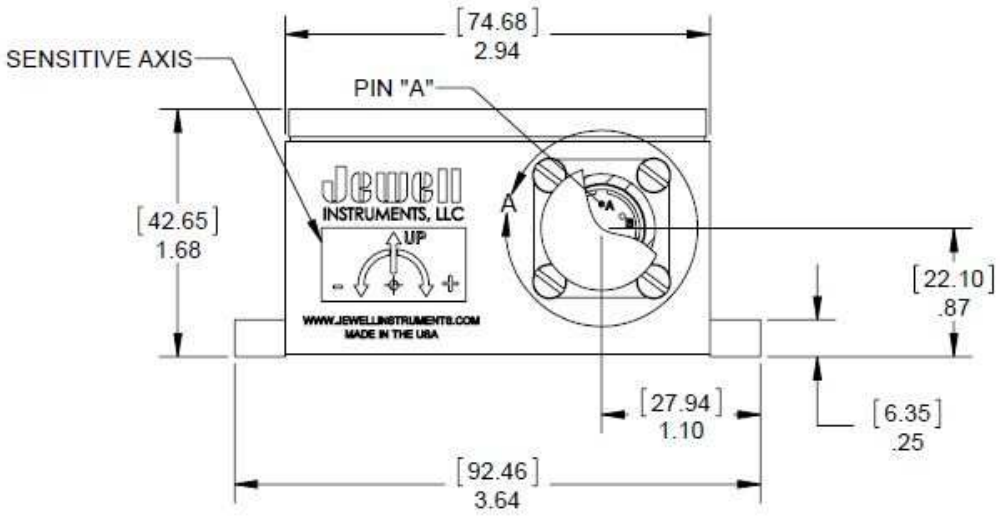
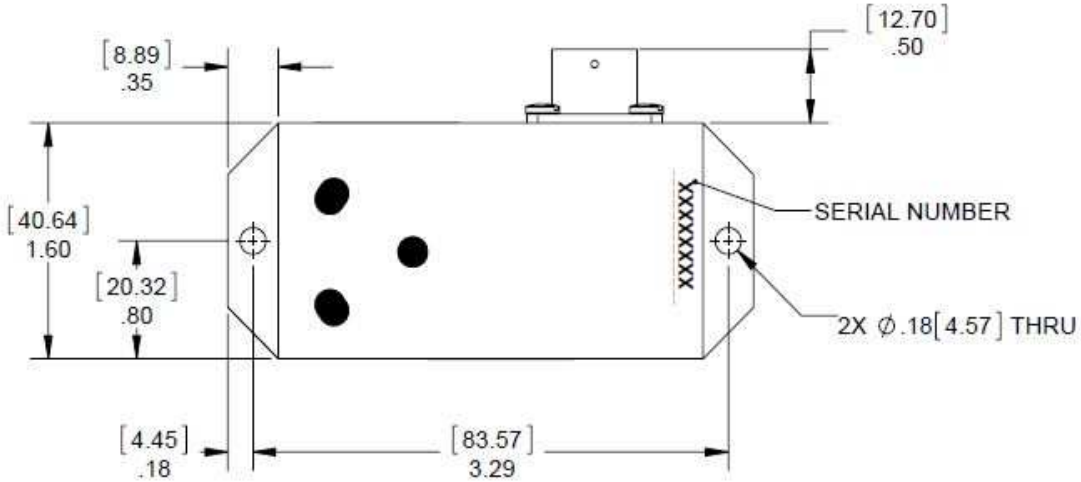
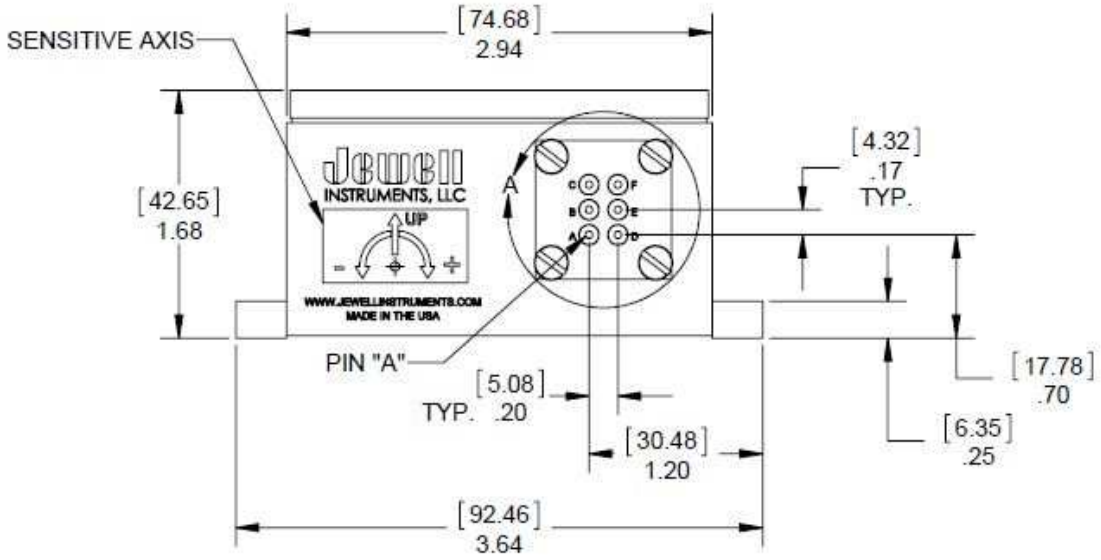
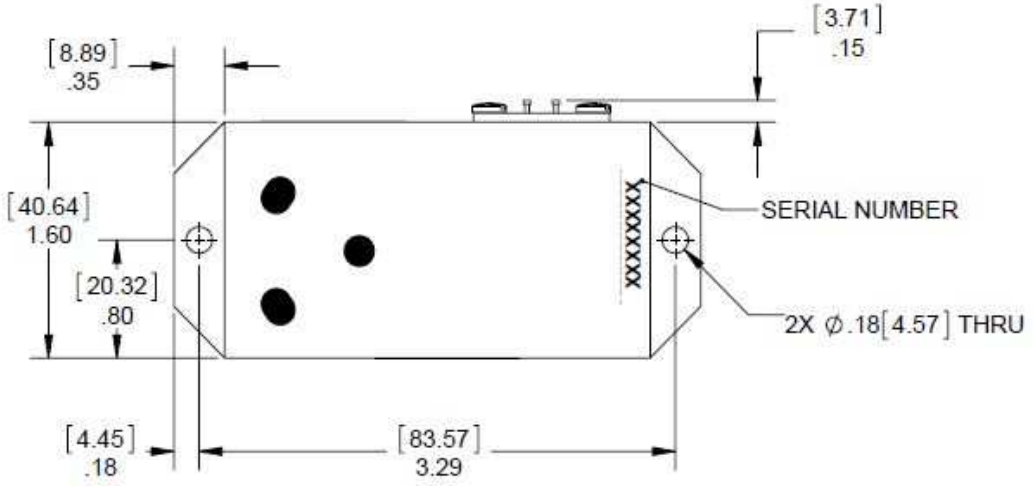
Outline Drawing: Connector Version



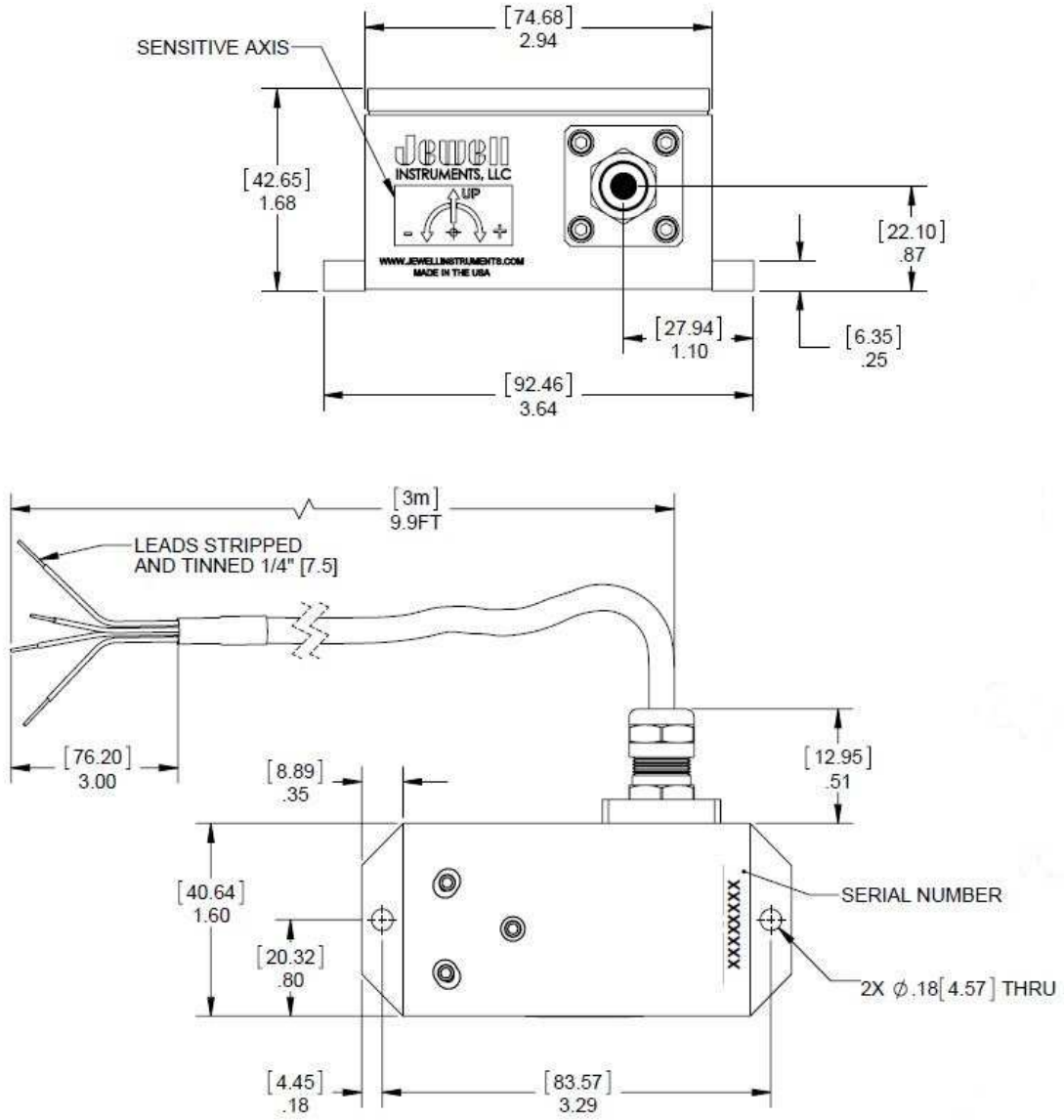


Outline Drawing: Pin Terminal Version





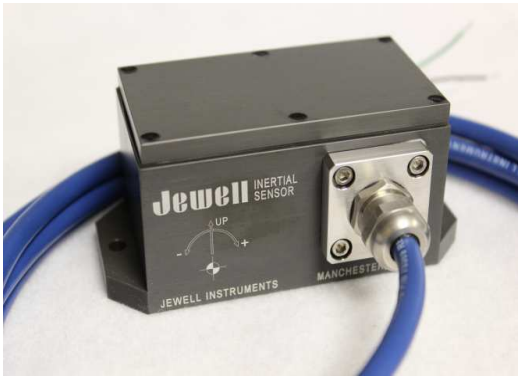
Outline Drawing: Wired Version



LSOX-S

LSOX-S-0-5V DC Out - Precision Fluid Damed Inclinometer

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.



Features

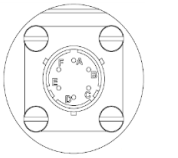
- ***Extremely Rugged***
- ***High Accuracy***
- ***Temperature Compensation Available***
- ***0-5V Output***
- ***+9 to +18 Volts DC Power Input***
- ***RoHS Compliant***
- ***CE Certification Available***

Applications

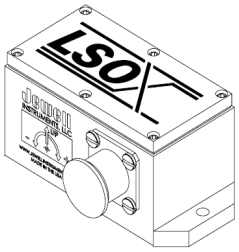
- ***High-precision Geotech***
- ***Oil and Gas, Riser Tilt Monitoring***
- ***Railroad MOW Equipment***
- ***Pavement Profiling Rigs***
- ***Vehicle Wheel Alignment***
- ***Robotics***

LSOX RoHS COMPLIANT

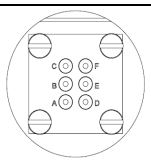
Connector Version



PIN	FUNCTION
A	POWER IN
B	COMMON
C	N/C
D	SIGNAL OUT
E	N/C
F	N/C

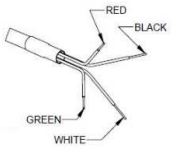


Pin Terminal Version



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

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LSOX-S

LSOX-S-0-5V DC Out - Precision Fluid Damed Inclinometer

STATIC/DYNAMIC

Input Range (deg.)	±1	±3	±14.5	±30	±60	±90
Full Range Output (VDC)[1]	0-5	0-5	0-5	0-5	0-5	0-5
Non-linearity (% FRO)[2]	0.05	0.02	0.02	0.02	0.02	0.05
Scale Factor (V/g nom.)	143.2	47.8	10.0	5.0	2.9	2.5
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)	±0.10	±0.04	±0.02	±0.02	±0.02	±0.02
0° Output Temp. Sensitivity (V/°C max)	0.015	0.005	0.001	0.0005	0.0004	0.0003
Resolution & Threshold (µradians)[3]	1	1	1	1	1	1

[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.

ELECTRICAL

Number of Axes:	1
Input Voltage Range, (VDC):	+9 to +18
Input Current, mA, max:	40
Noise, µArms, maximum:	0.002
Output Impedance (ohms)	1
Mass (grams)	370

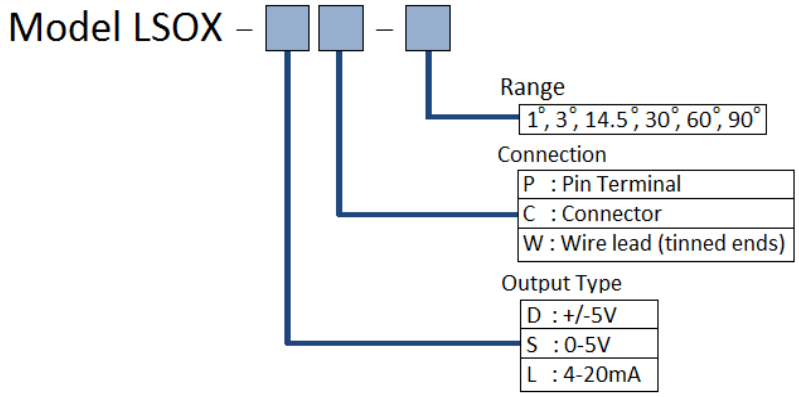
ENVIRONMENTAL

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

Order Code



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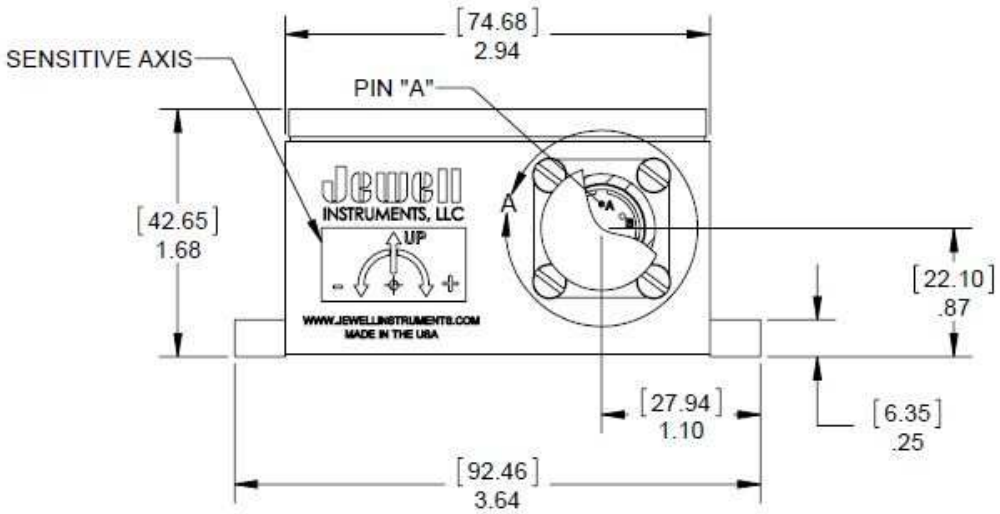
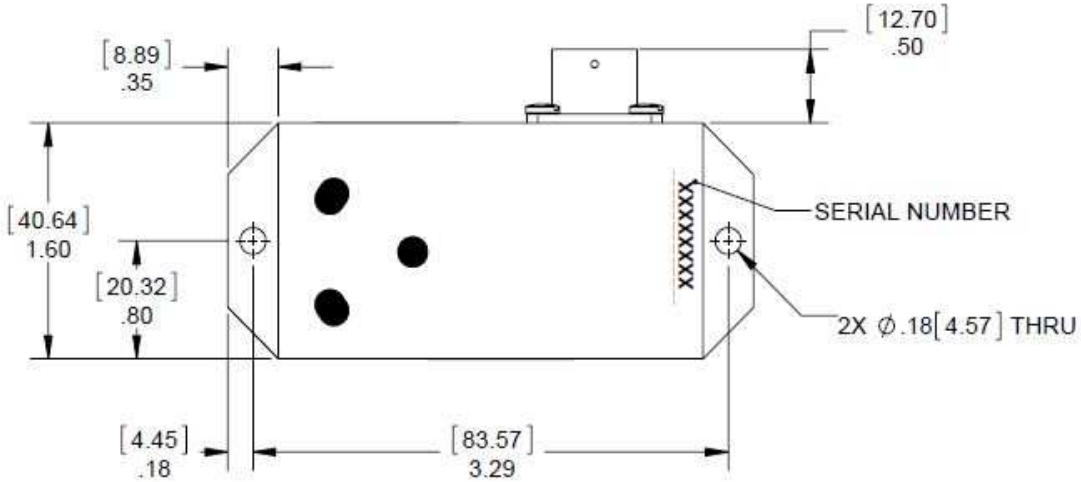
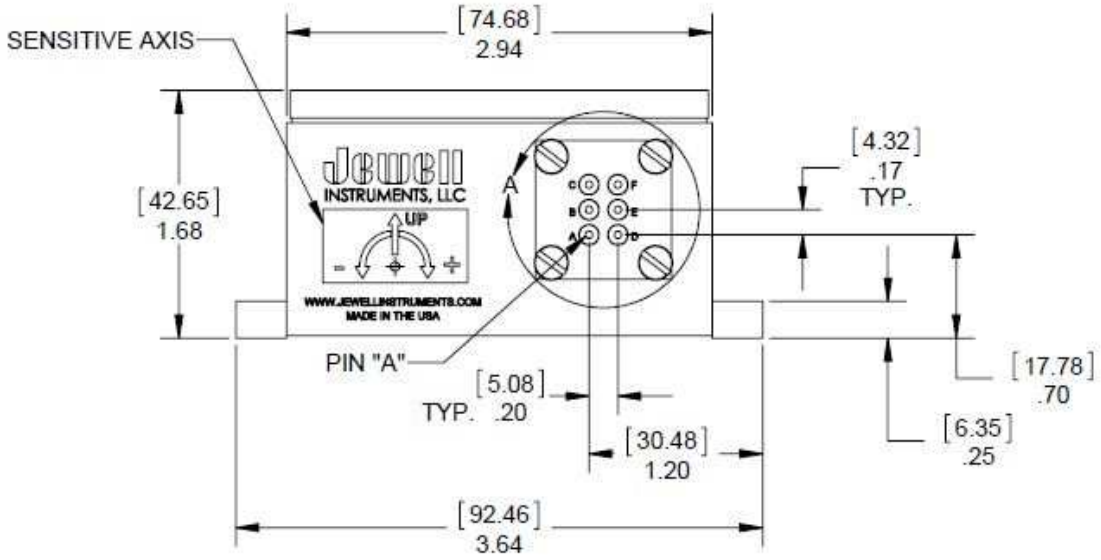
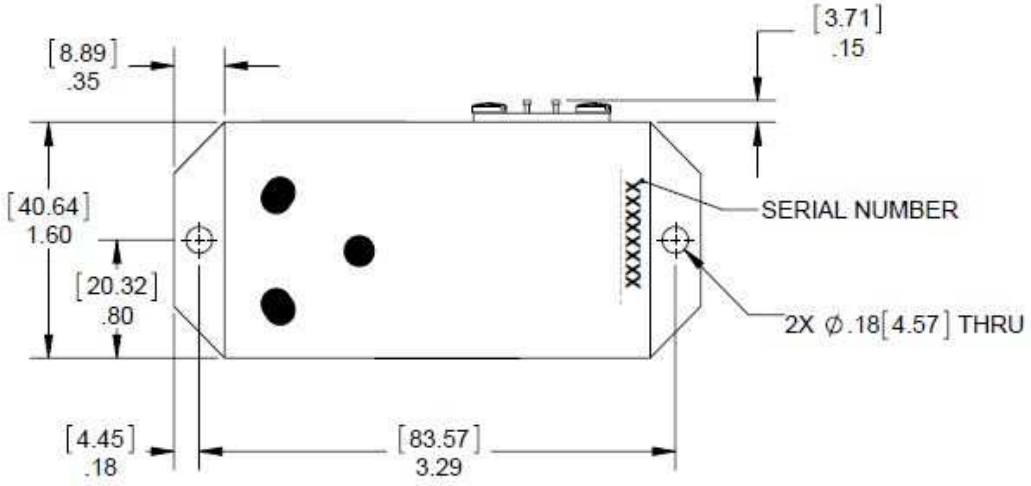
Outline Drawing: Connector Version



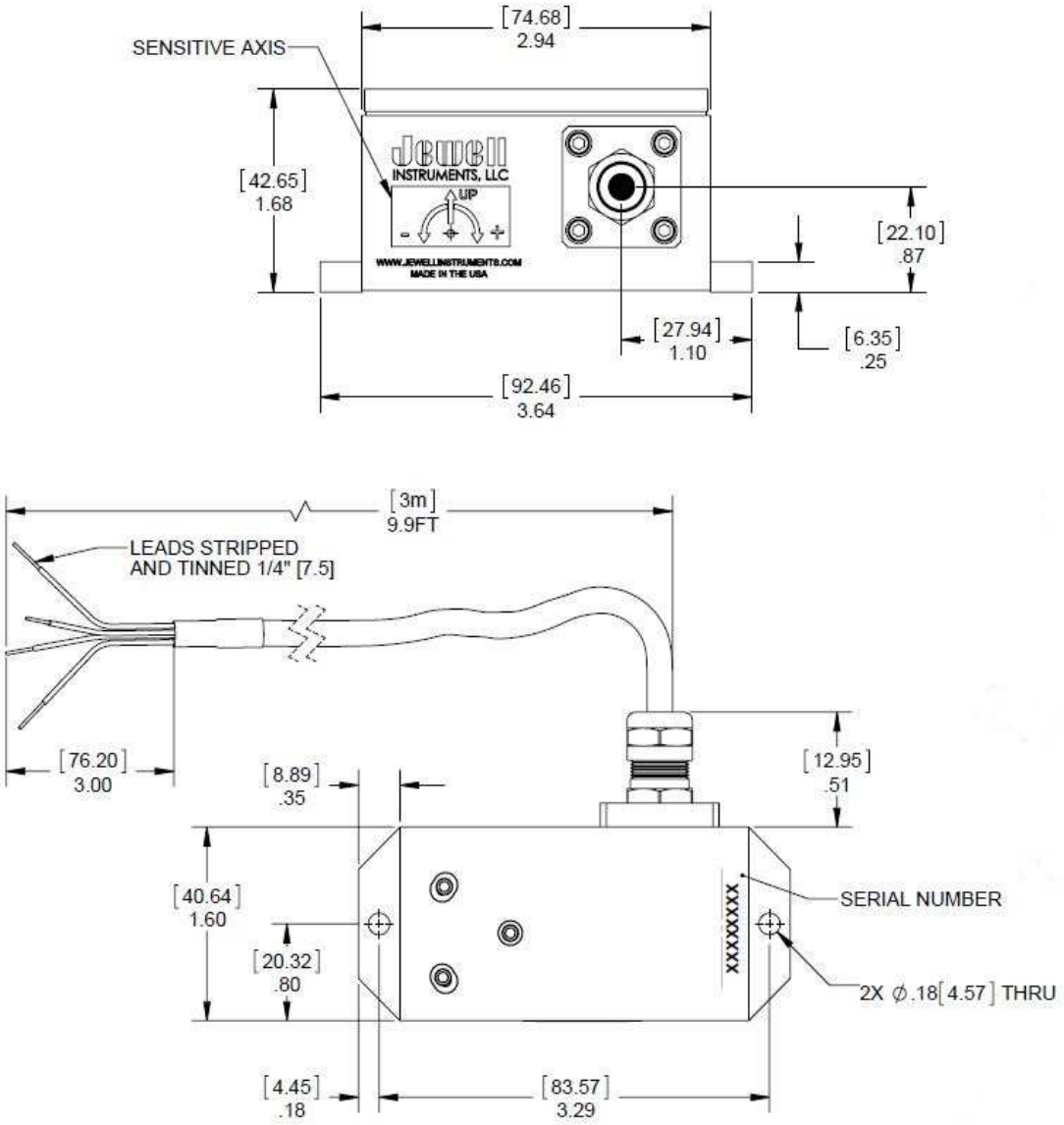


Outline Drawing: Pin Terminal Version





Outline Drawing: Wired Version



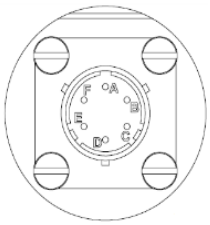
LSOX-SCE

LSOX-SCE - 0-5Vdc - Precision Fluid Damed Inclinometer -CE Marked

The LSOX Series Inclinometer is a rugged, high performance, single-axis, **CE marked**, 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.

Features

- ***Extremely Rugged***
- ***High Accuracy***
- ***Temperature Compensation Available***
- ***0-5Vdc Output***
- ***+9 to +18 Volts DC Power Input***
- ***RoHS Compliant***
- ***CE Marked***



PIN	FUNCTION
A	POWER IN
B	COMMON
C	N/C
D	SIGNAL OUT
E	N/C
F	N/C

Applications

- ***High-precision Geotechnical***
- ***Oil and Gas/Riser Tilt Monitoring***
- ***Railroad MOW Equipment***
- ***Pavement Profiling Rigs***
- ***Vehicle Wheel Alignment***
- ***Robotics***

CE LSOX RoHS COMPLIANT

LSOX-SCE

LSOX-SCE - 0-5Vdc - Precision Fluid Damed Inclinometer -CE Marked

STATIC/DYNAMIC

Input Range (deg.)	±1	±3	±14.5	±30	±60	±90
Full Range Output (VDC)[1]	0-5	0-5	0-5	0-5	0-5	0-5
Non-linearity (% FRO)[2]	0.05	0.02	0.02	0.02	0.02	0.05
Scale Factor (V/g nom.)	143.2	47.8	10.0	5.0	2.9	2.5
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)	±0.10	±0.04	±0.02	±0.02	±0.02	±0.02
0° Output Temp. Sensitivity (V/°C max)	0.015	0.005	0.001	0.0005	0.0004	0.0003
Resolution & Threshold (µradians)[3]	1	1	1	1	1	1

[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.

ELECTRICAL

Number of Axes:	1
Input Voltage Range, (VDC):	+9 to +18
Input Current, mA, max:	40
Noise, µArms, maximum:	0.002
Output Impedance (ohms)	1
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

Order Code

Model LSOX - S | CE - [ ]

Range
1°, 3°, 14.5°, 30°, 60°, & 90°

Connection
CE: Connector

Output Type
S: 0-5V

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Outline Drawing: Connector Version