

LCF-2330-L Series Dual Axis Inclinometer

4-20mA Output



Making Sense Out of Motion...

The Jewell LCF-2330-L Series Inclinometer is a dual axis version of the rugged and high accuracy LCF Series.



The **LCF-2330-L** offers the same performance and reliability as the standard LCF-2330 series, but with a convenient 4-20mA output signal. This solution is ideal for applications that require long cable runs such as platform/radar leveling and geotechnical monitoring.

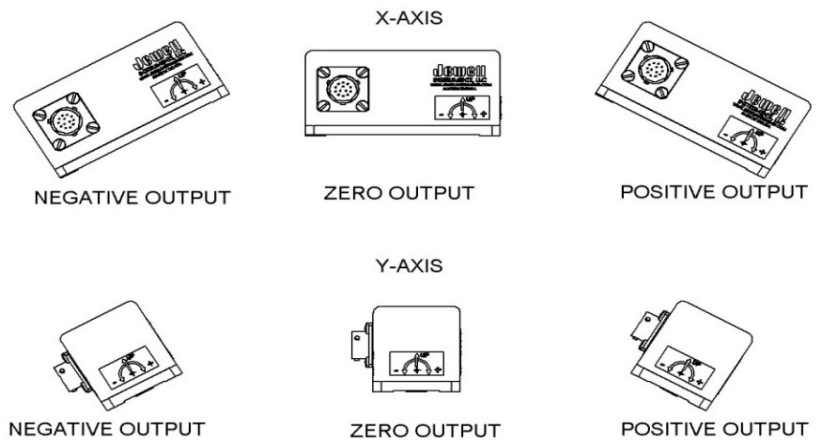
Features & Benefits

- $\pm 1^\circ$ to $\pm 90^\circ$ Input Full Range
- Micro Radian Resolution
- Available Internal Temp Sensor
- 4-20mA Output Signal
- Superior 0° Output Stability over Temperature
- Low Impedance Output

Applications

- Radar & Antenna Leveling
- Weapons Platform Leveling
- Barge and Offshore Platform Control
- Deviation Surveys
- 2-Axis Machine Tool Leveling
- Bridge Structural Monitoring
- Submersible Control Feedback
- Offshore Platform Stability
- Production/Manufacturing Process Equipment for Aerospace Industry

Tilt Orientation



Pin-Out: LCF-2330-L Inclinometer Series

CONNECTOR		CABLE ASSEMBLY
PIN	FUNCTION	COLOR CODING
1	+20 to +30 VDC	RED
2	N/C	-
3	Power Return	WHITE
4	X-Axis Output Signal	ORANGE
5	Signal Return	GREEN
6	Y-Axis Output Signal	RED/BLACK
7	Signal Return	BLUE
8 - 13	N/C	-

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LCF-2330-L Inclinometer Specifications

PERFORMANCE

Input Range, deg.	±1.0	±3	±14.5	±30	±90
Full Range Output (FRO), mA, ±1 %	4-20	4-20	4-20	4-20	4-20
Nonlinearity, % FRO, maximum	0.05	0.05	0.02	0.03	0.04
Scale Factor, mA/g, nominal	458.39	152.86	31.95	16.00	8.00
Scale Factor Temp Sensitivity, PPM/°C, maximum	300	300	100	100	100
Bandwidth, (-3 dB), Hz, nominal	0.5	2.0	15.0	20.0	30.0
Transverse Axis Misalignment, deg, maximum	±0.5	±0.5	±0.5	±0.5	±0.5
Output at 0° Tilt, mA, maximum	12 ±0.6	12 ±0.6	12 ±0.3	12 ±0.3	12 ±0.3
0° Output Temp Sensitivity, mA/°C, maximum	0.024	0.009	0.002	0.001	0.001
Resolution and Threshold, μradians, maximum	1	1	1	1	1

ELECTRICAL

Input Voltage, VDC	+20 to +30
Input Current, mA, maximum	90
Output Noise, mArms, maximum	0.01

ENVIRONMENTAL

Operating Temperature Range	-40°C to +80°C
Storage Temperature Range	-60°C to +90°C
Vibration	20 grms
Shock	1000g, 1 msec, 1/2 sine
Seal	IP65
Weight	280 grams

Optional Temperature Sensor

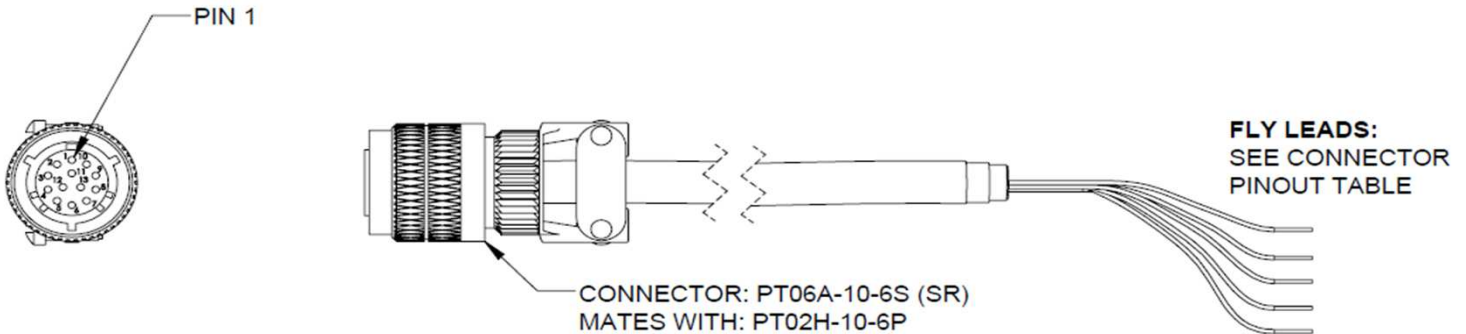
Sensor Type	AD590
Scale Factor	1 μA/K
Sensor Spec @ Room Ambient Temperature	298.2 ±10.5 μA

- Notes: 1 - Full range is defined as "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.
 *Specifications subject to change without notice on account of continued product development

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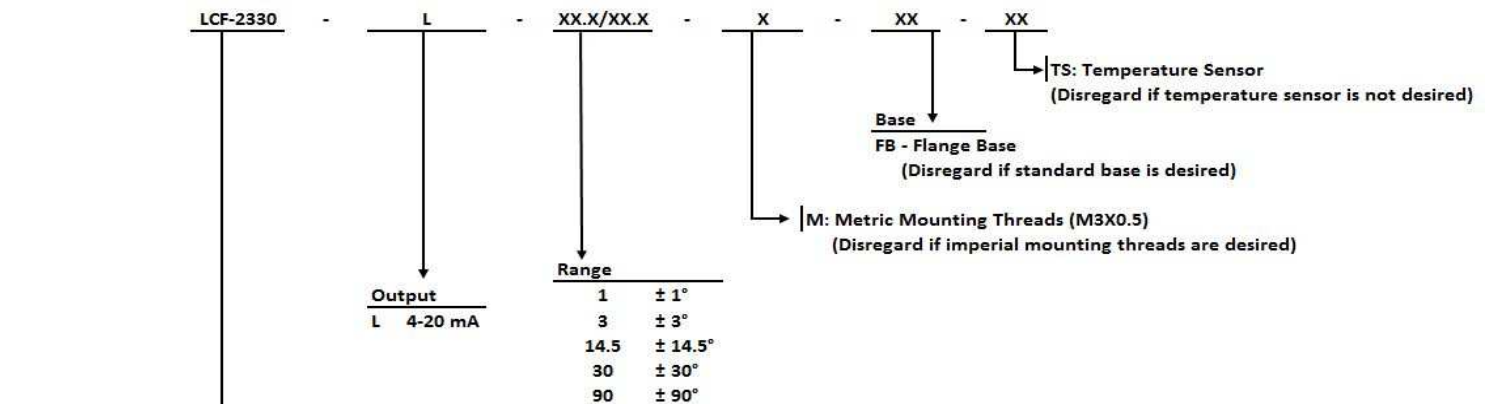
CABLE ACCESSORY



CABLE CONFIGURATIONS & PART NUMBERS

Part Number	Description
847774-002	Circular Connector(13 Pin)
879605-003	DSI-CBL-006-2 (6 Ft)
879605-004	DSI-CBL-010-2 (10 Ft)
879605-009	DSI-CBL-02M-2 (2M)
879605-010	DSI-CBL-03M-2 (3M)

How to Order

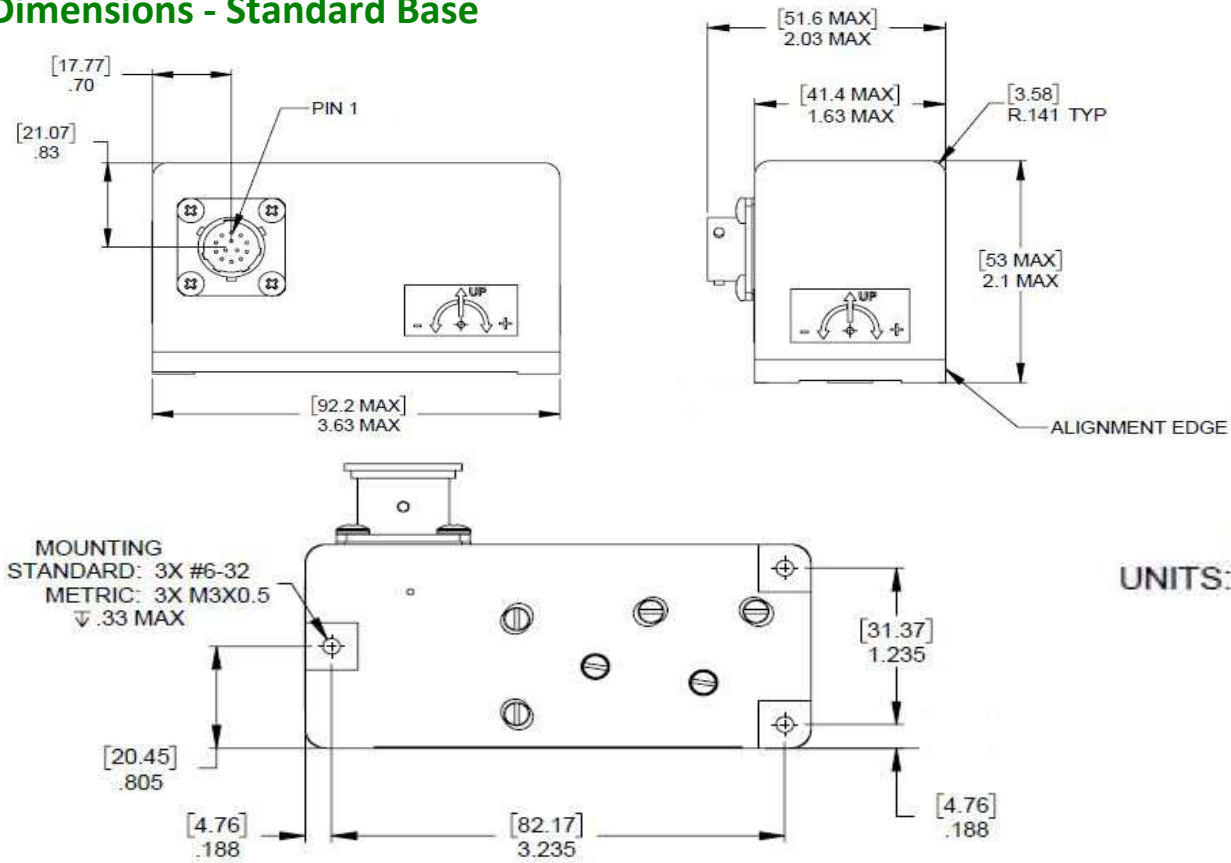


Example: LCF-2330-L-90/90 = LCF-2330, 4-20 mA output, ±90° range, imperial mounting threads, standard base

LCF-2330-L Series Dual Axis Inclinometer

4-20mA Output

Dimensions - Standard Base



Flange Base

