LCF-2330 Series Dual Axis Inclinometer

Making Sense Out of Motion…

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

The design of the **LCF-2330 Series** was optimized to provide the high accuracy and superior repeatability of Jewell's rugged, fluid damped, flexure suspension, servo technology in a small and convenient package for applications requiring a compact dual axis solution.

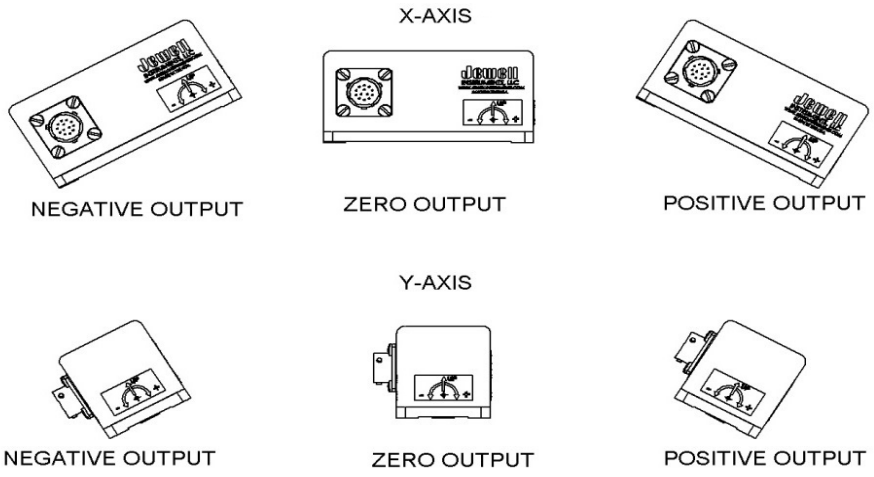
Features & Benefits

- ±1° to ±90° Input Full Range
- Micro Radian Resolution
- Available Internal Temp Sensor
- High Level ± 5 Vdc Output
- 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 Inclinometer Series*

CONNECTOR		CABLE ASSEMBLY
PIN	FUNCTION	COLOR CODING
1	+12 TO +18 VDC	RED
2	-12 TO -18 VDC	BLACK
3	POWER COMMON	WHITE
4	X-AXIS OUTPUT SIGNAL	ORANGE
5	X-AXIS OUTPUT RETURN	GREEN
6	Y-AXIS OUTPUT SIGNAL	RED/BLACK
7	Y-AXIS OUTPUT RETURN	BLUE

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LCF-2330 Inclinometer Specifications

PERFORMANCE

Input Range (°)	± 1.0	± 3.0	± 14.5	± 30.0	± 90.0
Full Range Output (FRO), Volts, ±1% (Note 1)	± 5.0	± 5.0	± 5.0	± 5.0	± 5.0
Non Linearity (%FRO′ Max.) (Note 2)	0.05	0.05	0.02	0.02	0.02
Scale Factor (V/g, Nom.)	286.5	95.5	20.0	10.0	5.0
Scale Factor Temp Sens (PPM/°C, Max.)	300	300	100	100	100
Bandwidth (-3dB), Hz, Nom.	0.5	2.0	15.0	20.0	30.0
Transverse Axis Misalignment, (°, Max.)	±0.25	±0.50	±0.50	±1.00	±1.00
Output at 0° Tilt, Volts, Max.	0.10	0.04	0.02	0.02	0.02
0° Output Temp Sens, Volts/°C, Max.	0.015	0.005	0.001	0.0005	0.0003
Resolution and Threshold			1µradian		

ELECTRICAL

Input Voltage (Vdc)	±12 to ±18
Input Current (mA, Nom.)	30
Output Impedance (Ohms, Nom.)	100
Noise (Vrms, Max.)	0.002

ENVIRONMENTAL

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

Optional Temperature Sensor

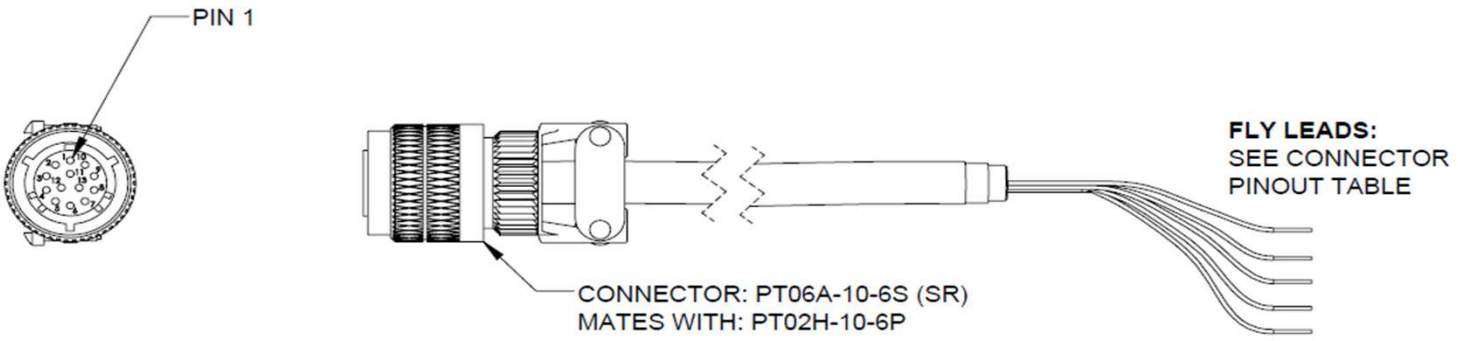
Sensor Type	AD590
Scale Factor	1 µA/K
Sensor Spec @ Room Ambient Temperature	298.2 ±10.5 µA

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

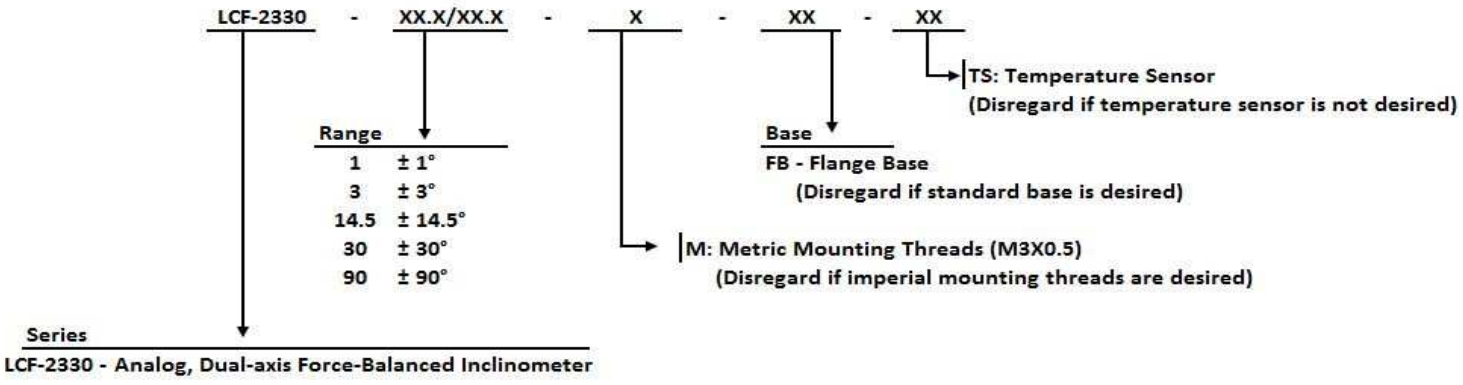
CABLE ACCESSORY



CABLE CONFIGURATIONS & PART NUMBERS

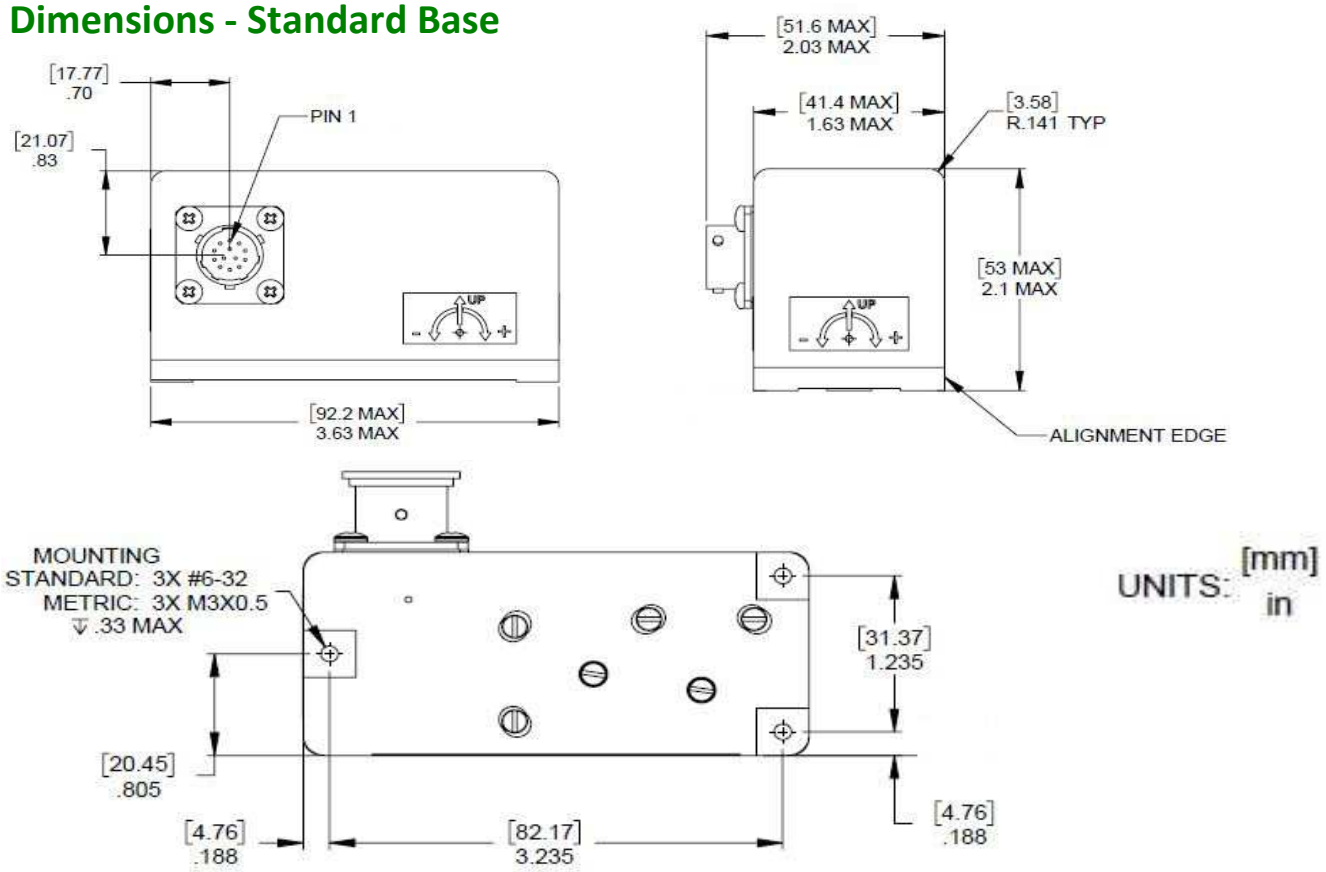
Part Number	Description
847774-002	Circular Connector(13 Pin)
879605-003	DSI-CBL-006-2 (6 Ft)
879605-004	DSI-CBL-010-2 (10 Ft)
879605-009	DSI-CBL-02M-2 (2M)
879605-010	DSI-CBL-03M-2 (3M)

How to Order



Example: LCF-2330-90/90 = LCF-2330, ±90° range, imperial mounting threads, standard base

Dimensions - Standard Base



Flange Base