

LCF-2330 Series Dual Axis Inclinometer

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.

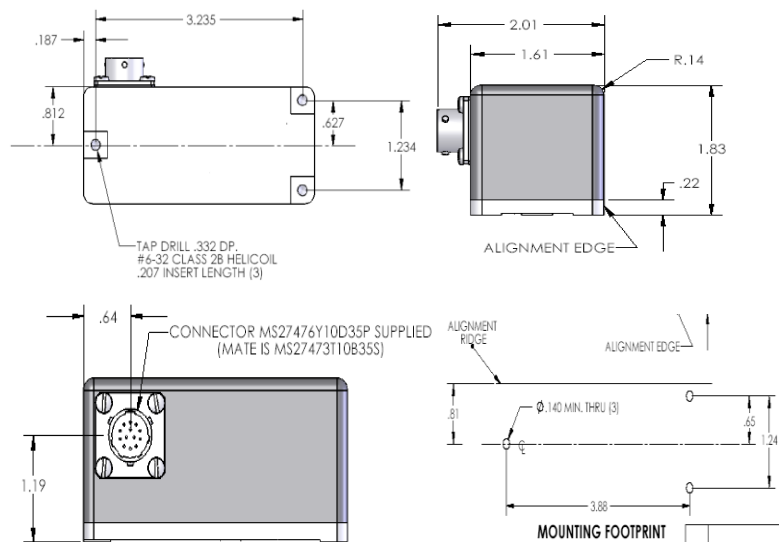
Features & Benefits

- $\pm 1^\circ$ to $\pm 90^\circ$ Input Full Range
- Micro Radian Resolution
- Available Internal Temp Sensor
- High Level ± 5 Vdc Output
- Superior 0° Output Stability over Temperature
- Low Impedance Output

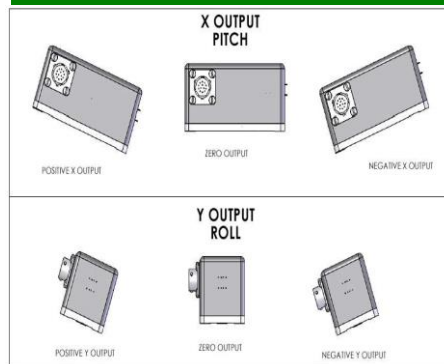
Applications

- 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

Dimensional Drawing: LCF-2330 Inclinometer Series



Pin-Out: LCF-2330 Inclinometer Series



Pin 1	+12 to +18 VDC
Pin 2	-12 to +12 VDC
Pin 3	Power/Sig Common
Pin 4	Output Signal, X Axis
Pin 5	Output Signal RTN, X Axis
Pin 6	Output Signal, Y Axis
Pin 7	Output Signal RTN, Y Axis
Pin 8-13	N/C

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	60	60
Bandwidth (-3dB), Hz, Nom.	2.0	3.0	30.0	30.0	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	MIL-STD 202, Method 112
Weight	8.0 oz.

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.

How to Order

LCF-2330- 1/1	468233-005
LCF-2330- 3/3	468233-006
LCF-2330- 14.5/14.5	468233-002
LCF-2330- 30/30	468233-003
LCF-2330- 90/90	468233-004