LCF 2000 Inclinometer

Making Sense out of Motion…

Input Ranges From ±1.0° to ±90° With High Reliability, High Resolution, and Dual Axis

The Jewell **LCF 2000 Series** dual axis inclinometer is a rugged, high accuracy version of the LCF Series. It is available with a wide range of custom options including single ended input power, internal temperature sensor and 4-20mA.

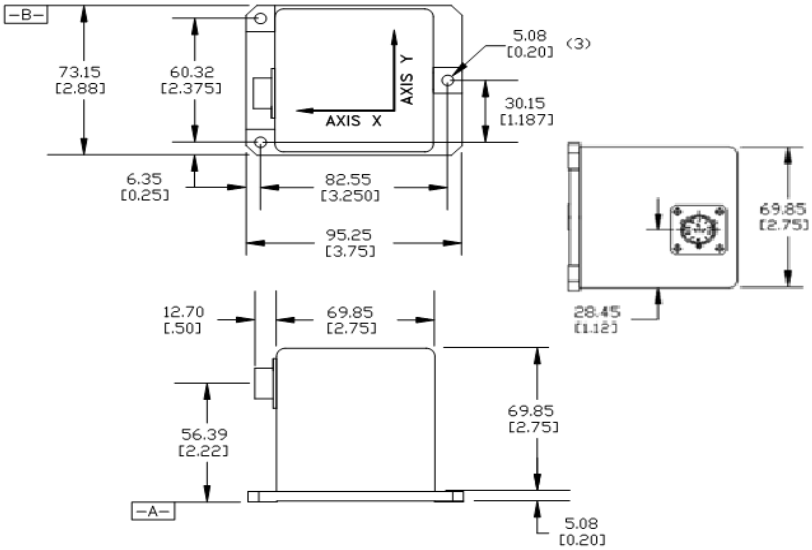
Features

- Ranges Available from ±1° to ±90°
- Operating Temp Range of -40°C to +80°C
- Shock Survival of 1000g
- High Level of ±5 Vdc Output
- Fluid Damped for High Shock and Vibration Applications
- Dual Axis

Applications

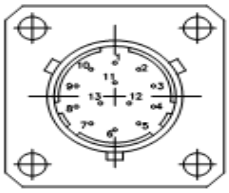
- Antenna Leveling
- Weapons Platforms
- Barge & Offshore Platform Leveling & Control
- Data Buoy Pitch and Roll Measurement
- Missile Launchers
- Crane Overturning-Moment Alarms
- Electronic Level Applications
- Aircraft Manufacturing Equipment
- Wind Turbine Tilt Control Nacelle

Outline Diagram



Pin Out (Options: C-connector, P-Pin)

CONNECTOR
MS27476Y10D35P



Pin 1	+15 VDC
Pin 2	-15 VDC
Pin 3	Power/Output Common
Pin 4	Output Signal, X Axis
Pin 5	Output Signal, Y Axis
Pin 6-13	N/C

Jewell Instruments LLC , 850 Perimeter Road, Manchester, NH 03103
sales@jewellinstruments.com • www.jewellinstruments.com • Tel (800) 227-5955

LCF-2000 Inclinometer

Making Sense out of Motion…

Performance Specifications

STATIC/DYNAMIC

Input Range, °:	±1	±3	±14.5	±30	±90
Full Range Output (FRO -Note 1) VDC ±1%:	±5.00	±5.00	±5.00	±5.00	±5.00
Scale Factor, Volts/g, nominal:	286.5	95.54	20	10	5
Scale Factor Temp. Sensitivity (SFTS), PPM /°C maximum:	200	100	100	100	100
Bandwidth (-3 dB), Hz nominal:	3.00	3.00	30.00	30.00	30.00
Output Axis Misalignment, ° maximum:	0.2	0.4	0.4	0.7	0.7
Pendulous Axis Misalignment, ° maximum:	0.18	0.35	0.35	0.71	0.71
0° Output, Volts range:	±0.75	±0.25	±0.075	±0.05	±0.05
0° Output Temp. Sensitivity, Volts /°C maximum:	0.015	0.005	0.001	0.0005	0.0003
Resolution and Threshold, µradians maximum:	1.0	1.0	1.0	1.0	1.0
Nonlinearity (Note 2) % FRO maximum	0.05	0.05	0.02	0.02	0.05

ELECTRICAL

Number of Axes:	2
Input Voltage Range, (VDC):	±12 to ±18
Input Current, mA, max:	30
Output Impedance, Ohms, nom:	100
Noise, Vrms, maximum:	0.002

ENCLOSURE

Weight oz.:	16
Seal:	Mil-Std 202, Mtd 112

ENVIRONMENTAL

Operating Temp Range:	-40°C to +80°C
Storage Temp Range:	-40°C to +90°C
Vibration grms:	20
Shock:	1000g, 0.001 sec., ½ sine

Notes: Note 1: Full Range is defined "from negative full input angle to positive full input angle."

Note 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**

Custom Capabilities

- Unit Power Connections can be easily adapted for operations from single-ended, floating power supplies of 24 to 36 Volts DC
- Internal Temperature Sensor
- 4-20 mA output

How to Order

LCF-2000 ± 1	468200-005
LCF-2000 ± 3	468200-006
LCF-2000 ± 14.5	468200-002
LCF-2000 ± 30	468200-003
LCF-2000 ± 90	468200-004

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