



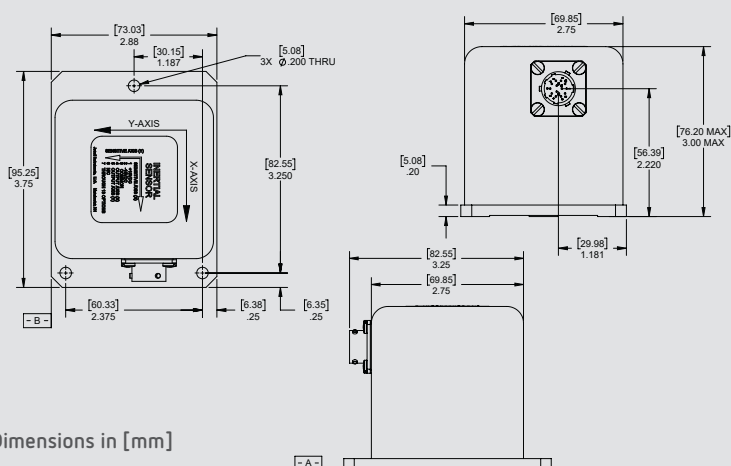
## LCF-2000 Analog Inclinometer

### Introduction

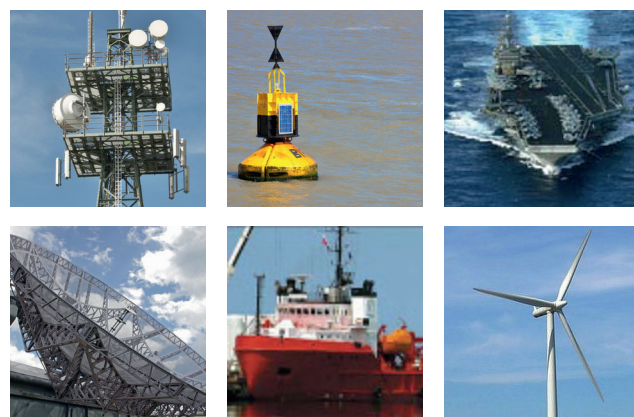
The LCF-2000 Series is a rugged, high accuracy dual axis inclinometer. It is available with a wide range of options including single ended input power, internal temperature sensor and 4-20mA output.

### ■ Features

- Ranges Available from  $\pm 1^\circ$  to  $\pm 90^\circ$
- Operating Temp Range of  $-40^\circ\text{C}$  to  $+80^\circ\text{C}$
- Shock Survival of 1000g
- High Level of  $\pm 5\text{ Vdc}$  Output
- Fluid Damped for High Shock & Vibration Applications
- Dual Axis



Dimensions in [mm]



### ■ Application

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



## Performance specifications LCF-2000

### Performance

Input range (°)	±1	±3	±14.5	±30.0	±90.0
Full range output (FRO) VDC ± 1% <sup>1</sup>	±5.0				
Non linearity (%fro max) <sup>2</sup>	0.05	0.05	0.02	0.02	0.05
Scale factor (V/g, nominal)	286.5	95.54	20	10	5
Scale factor temp. Sensitivity (ppm/°C, max)	200	100	100	100	100
Bandwidth (-3db hz, nominal)	3.00	3.00	30.00	30.00	30.00
Transverse axis misalignment (° max)	0.18	0.35	0.35	0.71	0.71
0° output range (Volts)	±0.75	±0.25	±0.075	±0.05	±0.05
0° output temp. Sensitivity (Volts/°C, max)	0.015	0.005	0.001	0.0005	0.0003
Resolution & threshold (µradian)	1				

### Electrical

Number of axes	2
Input voltage range (VDC)	±12 to ±18
Input current (mA, max)	30
Output impedance (Ohms, nominal)	100
Noise (Vrms max)	0.002

### Environmental

Operating temp. Range	-40° to +80°C
Survival temp. Range	-40° to +90°C
Shock	1000g, 0.001 sec, ½ sine
Seal	MIL-STD-202, Mtd. 112
Weight	WEIGHT 16 oz
Vibration	20 grms

### Notes

1. Full range is defined as "from negative full input angle to positive full input angle."  
The Inclinometer output is proportional to the sine of the tilt 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

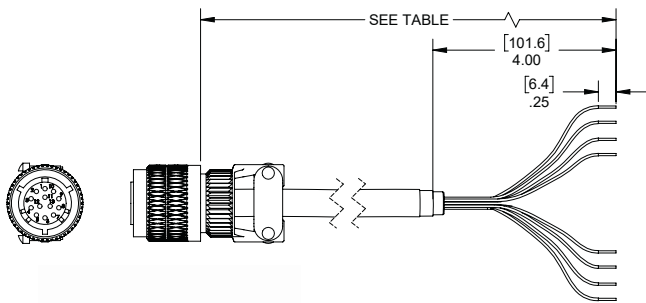
### Pin outs

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



## Accessories

### Connector cable



NOTE: Please contact factory for any custom length cable assemblies.

PART #	MODEL #	LENGTH m (ft)
847774-002	13-Pin Mating Connector	-
879605-003	DSI-CBL-060-2	6 ft
879605-004	DSI-CBL-010-2	10 ft
879605-009	DSI-CBL-02M-2	2 m
879605-010	DSI-CBL-03M-2	3 m

PIN	COLOR	PIN OUT
A	Red	+VDC
B	White	Common
C	Black	-VDC
D	Orange	Signal output & self test return
E	N/C	N/C
F	Blue	Self test

## Ordering information

### Custom capabilities

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

±1.0	LCF-2000-1/1	468200-005
±3.0	LCF-2000-3/3	468200-006
±14.5	LCF-2000-14.5/14.5	468200-002
±30.0	LCF-2000-30/30	468200-003
±90.0	LCF-2000-90/90	468200-004