

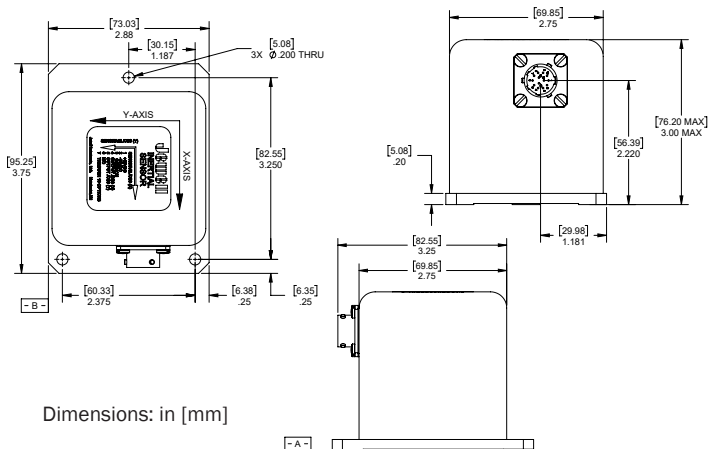
LCF-2000

Dual-Axis Analog Inclinometer

The Jewell 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°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



PIN OUT:

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



APPLICATIONS:

- 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) ¹ VDC ± 1%	±5.0				
NONLINEARITY ² (%FRO max)	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, max)	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 TEMPERATURE RANGE	-40° to +80°C
SURVIVAL TEMPERATURE RANGE	-40° to +90°C
SHOCK	1000g, 0.001 sec, ½ sine
SEAL	MIL-STD-202, Mtd. 112
WEIGHT	16 oz
VIBRATION	20 grms

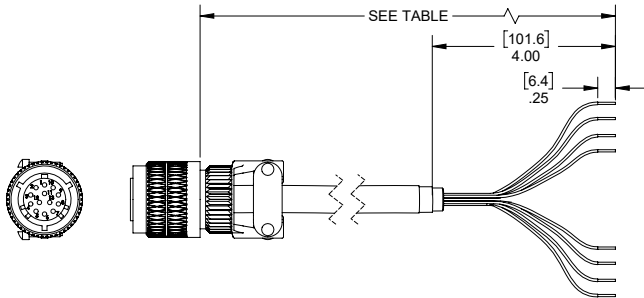
NOTES:

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 are subject to change without notice due to continued product development

MATING CONNECTOR AND CABLE ASSEMBLIES

CONNECTOR CABLE



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

PART #	MODEL #	LENGTH
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

HOW TO ORDER

	MODEL #	PART #
±1	LCF-2000-1/1	468200-005
±3	LCF-2000-3/3	468200-006
±14.5	LCF-2000-14.5/14.5	468200-002
±30	LCF-2000-30/30	468200-003
±90	LCF-2000-90/90	468200-004