

MODEL ZLZ - LINEAR CABLE ENCODER (Replaces MODEL LES)

- LOW COST LINEAR SOLUTION
- 50 OR 500 PULSES PER INCH
- STAINLESS STEEL CABLE
- 0 TO 50 INCHES OF CABLE MEASUREMENT
- VARIOUS CABLE ASSEMBLIES AVAILABLE



DESCRIPTION

The Linear Cable Encoder can provide an accurate, yet low cost solution for Linear Measurement applications. Common applications include robotics, extrusion presses, valve positioning, textile machinery, and gate control positioning, just to name a few. The ZLZ has some unique advantages over other sensing solutions. Using a stainless steel cable, perfect parallel alignment is no longer required and with a 50 inch cable reach, it can easily be mounted away from harsh environments. The ZLZ is available in a quadrature output, allowing the sensor to operate in positioning applications.

Additional cable exit configurations, pulses per inch, and mating connectors are available on special request. Contact the factory for details.

Open Collector Output Wiring

The ZLZ sensors have open collector outputs. An open collector output brings the uncommitted collector of the encoder switching device to the external world. Because the collector element is not associated with the sensor supply voltage, the sensor output collector may be "pulled up" to external voltages (40 VDC max.) different than the encoder supply voltage. NPN open collector outputs are current sinking devices. An output signal will not be generated unless a pull-up resistor is connected from the open-collector to the positive side of an external supply. The same supply can be used for powering the unit and for the pull-up resistor.

SPECIFICATIONS

ELECTRICAL SPECIFICATIONS

1. **INPUT VOLTAGE:** 4.75 to 28 VDC
2. **INPUT CURRENT:** 80 mA maximum with no output load
3. **INPUT RIPPLE:** 100 mV peak-to-peak at 0 to 100 KHz
4. **OUTPUT:** NPN open collector; 250 mA max per channel; Incremental - square wave with channel A leading B during linear extension.
5. **INDEX:** Once per 5" cable extension or retraction
6. **MAX FREQUENCY:** 0 to 125 KHz
7. **SYMMETRY:** 180° (±18°) electrical
8. **QUAD PHASING:** 90° (±22.5°) electrical
9. **RISE TIME:** Less than 1 µsec

MECHANICAL SPECIFICATIONS

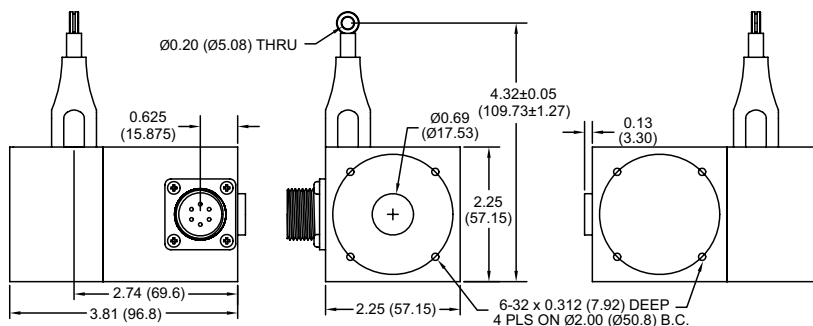
1. **FULL STROKE LENGTH (FSL):** 50" standard.
2. **FINISH:** Black powder coated aluminum
3. **ACCURACY:** ±0.10% FSL
4. **REPEATABILITY:** ±0.015% FSL
5. **LINEAR RESOLUTION:** Up to 500 cycles per inch (0.002" per cycle)
6. **CABLE MATERIAL:** 0.034" nylon coated stainless steel rope
7. **CABLE TENSION:** 20 oz maximum typical
8. **LIFE (CYCLES):** 1,000,000 predicted at zero angle cable exit
9. **CONNECTOR TYPE:** 6-Pin MS type connector
10. **WEIGHT:** 19 oz (538.64 g)

ENVIRONMENTAL SPECIFICATIONS

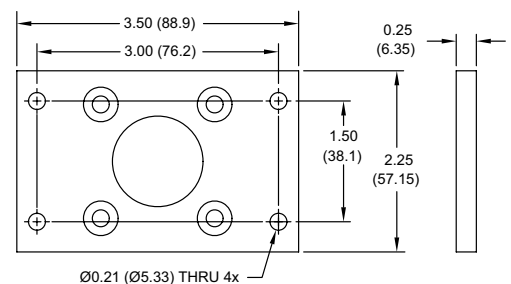
1. **OPERATING TEMPERATURE:** 0 °C to 85 °C
2. **SEALING:** IP65 standard

DIMENSIONS In inches (mm)

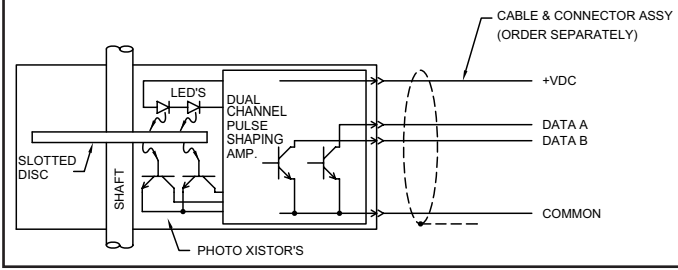
ZLZ



MOUNTING BRACKET



ZLZ ELECTRICAL CONNECTIONS



ZLZ WIRING SPECIFICATIONS

FUNCTION	LE PIN	CCARPG WIRE COLOR
+VDC	A	RED
COMMON	B	BLACK
DATA A	C	WHITE
DATA B	D	GREEN
NO CONNECTION	E	

ORDERING INFORMATION

MODEL NO.	DESCRIPTION	PART NUMBER
ZLZ	Quadrature output, 50 PPI, Standard Housing	ZLZ0050G
	Quadrature output, 500 PPI, Standard Housing	ZLZ0500G

ACCESSORIES

MODEL NO.	DESCRIPTION	PART NUMBER
	ZLZ Mounting Bracket	LEMTBR00
CCARPG	Mating 6-Pin MS Connector	CCARPG00
	10' 6-Pin 4-Wire Cable/Connector	CCARPG01
	25' 6-Pin 4-Wire Cable/Connector	CCARPG25
	50' 6-Pin 4-Wire Cable/Connector	CCARPG50

LIMITED WARRANTY

The Company warrants the products it manufactures against defects in materials and workmanship for a period limited to two years from the date of shipment, provided the products have been stored, handled, installed, and used under proper conditions. The Company's liability under this limited warranty shall extend only to the repair or replacement of a defective product, at The Company's option. The Company disclaims all liability for any affirmation, promise or representation with respect to the products.

The customer agrees to hold Red Lion Controls harmless from, defend, and indemnify RLC against damages, claims, and expenses arising out of subsequent sales of RLC products or products containing components manufactured by RLC and based upon personal injuries, deaths, property damage, lost profits, and other matters which Buyer, its employees, or sub-contractors are or may be to any extent liable, including without limitation penalties imposed by the Consumer Product Safety Act (P.L. 92-573) and liability imposed upon any person pursuant to the Magnuson-Moss Warranty Act (P.L. 93-637), as now in effect or as amended hereafter.

No warranties expressed or implied are created with respect to The Company's products except those expressly contained herein. The Customer acknowledges the disclaimers and limitations contained herein and relies on no other warranties or affirmations.

Red Lion Controls
Headquarters
20 Willow Springs Circle
York PA 17406
Tel +1 (717) 767-6511
Fax +1 (717) 764-0839

Red Lion Controls
Europe
Softwareweg 9
NL - 3821 BN Amersfoort
Tel +31 (0) 334 723 225
Fax +31 (0) 334 893 793

Red Lion Controls
India
201-B, 2nd Floor, Park Centra
Opp 32 Mile Stone, Sector-30
Gurgaon-122002 Haryana, India
Tel +91 984 487 0503

Red Lion Controls
China
Unit 302, XinAn Plaza
Building 13, No.99 Tianzhou Road
ShangHai, P.R. China 200223
Tel +86 21 6113 3688
Fax +86 21 6113 3683