

Model LCE Linear Cable Encoder



Features

- Low Cost Linear Solution
- Imperial and Metric Options
- Up to 1.27M or 50 Inches Full Stroke Length

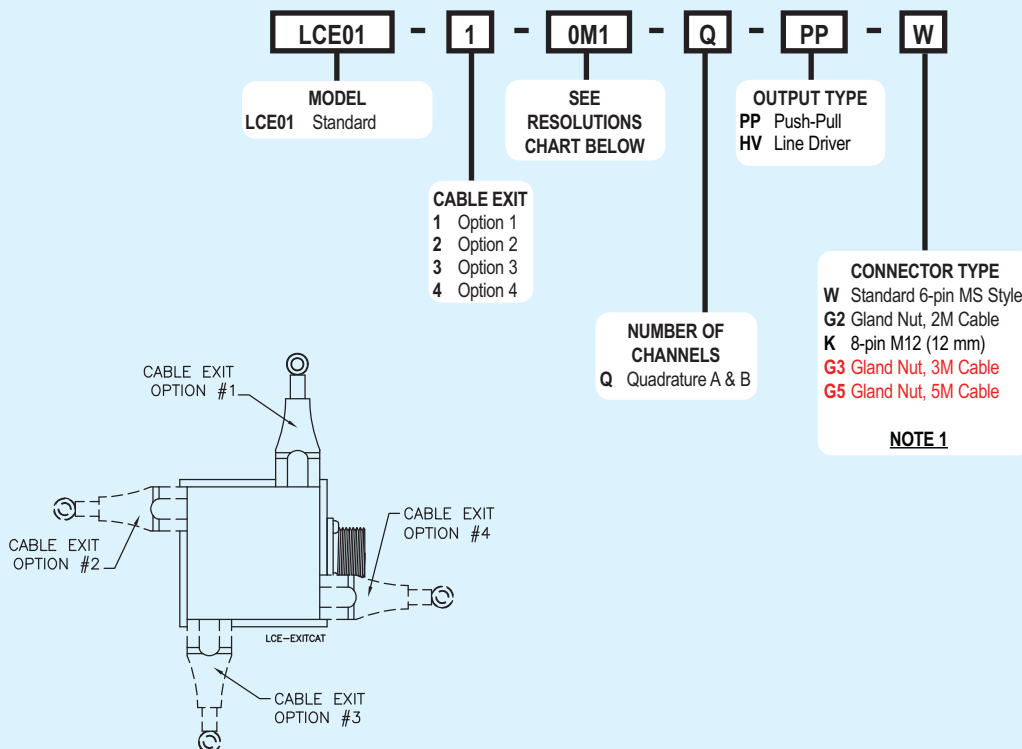
The Linear Cable Encoder (LCE) provides a low cost alternative for obtaining accurate linear measurements. As opposed to typical rotary shaft style encoders, the LCE has a retractable stainless steel cable, allowing for numerous and unusual measuring configurations. Placing the LCE away from harsh environmental conditions, while still providing precise measurements, gives the LCE an outstanding advantage over shaft style encoders. Installation is easy with a variety of cable exit directions, and perfect parallel alignment is no longer necessary. The heart of the LCE is the 716 Series encoder. The 716 provides a reliable digital pulse train in quadrature format, with resolutions down to 0.1mm. The small overall size, a variety of resolutions, and choice of connector types, makes the versatility of the LCE unbeatable!

Common Applications

Robotics, Extrusion Presses, Valve Positioning, Textile Machinery, Control Gate Positioning

Model LCE Ordering Guide

Red type indicates price adder options. Not all configuration combinations may be available. Contact Customer Service for details.



Model LCE Resolution Table

Pulses Per 127mm / 5.0" Linear Travel	0127	1270	0050	0500
Linear Resolution	1.00mm	0.10mm	0.10"	0.01"
Select Option	1M0	0M1	E10	E01

NOTES:

1 For non-standard cable lengths, please call the sales office.

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Model LCE Specifications

Electrical

Input Voltage.....4.75 to 24 VCC max for temperatures up to 70° C
 Input Current.....80 mA maximum with no output load
 Input Ripple100 mV peak-to-peak at 0 to 100 kHz
 Output FormatIncremental- Square wave with channel A leading B during linear extension
 Output Type
 Push-Pull- 20 mA max per channel
 Line Driver- 20 mA max per channel (Meets RS 422 at 5 VCC supply)
 Freq Response.....Up to 125 kHz
 Symmetry180° (±18°) electrical
 Quad Phasing.....90° (±22.5°) electrical
 Rise Time.....Less than 1 microsecond

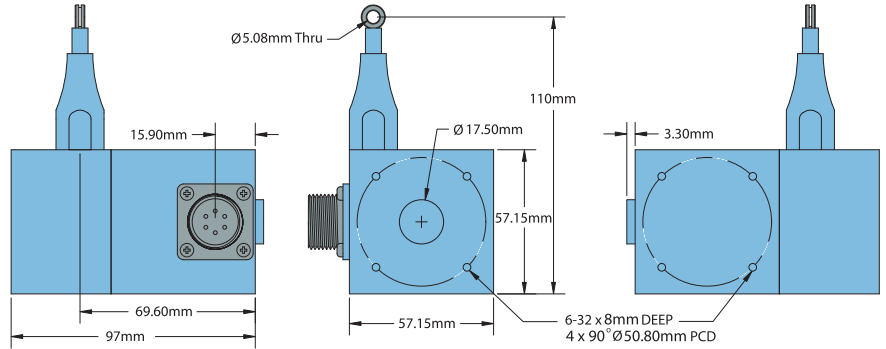
Mechanical

Full Stroke.....1.27M / 50" standard.
 FinishBlack powder coated aluminum
 Accuracy±0.10% of FSL
 Repeatability.....±0.015% of FSL
 Linear Resolution**See resolution table**
 Cable Material0.864mm Dia nylon coated stainless steel rope
 Cable Tension.....570 gms maximum typical
 Life (cycles)1,000,000 predicted at zero angle cable exit
 Electrical Conn6-pin MS, or 8-pin M12 Eurofast
 Gland with 2M cable (foil and braid shield, 24 AWG conductors)

Environmental

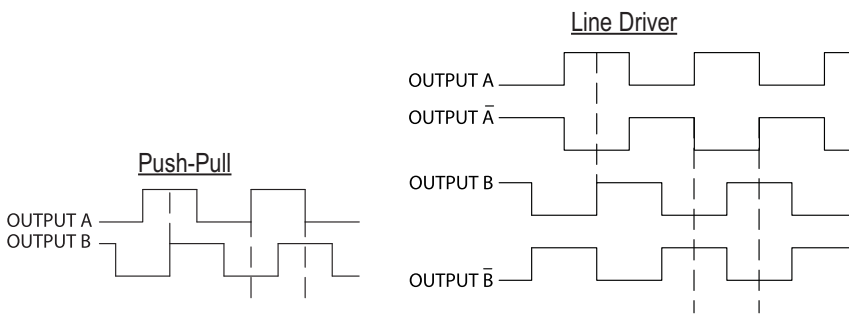
Operating Temp.....0° to 70° C standard
 Sealing.....IP50 Standard

Model LCE



1.27M or 50" Full Stroke Length

Waveform Diagrams



Wiring Tables

Function	Gland Cable Wire Color	8-pin M12 HV A+B	6-pin MS HV A+B	6-pin MS PP A+B
Com	Black	7	A	A
+VDC	Red	2	B	B
A'	Brown	1	C	---
A	White	3	D	D
B	Blue	4	E	E
B'	Violet	5	F	---
Shield	Screen	---	---	---