

Model LCE Linear Cable Encoder



Features

- Low Cost Linear Solution
- Imperial and Metric Options
- IP65 Sealing Available
- Up to 1.27M or 50 Inches Full Stroke Length

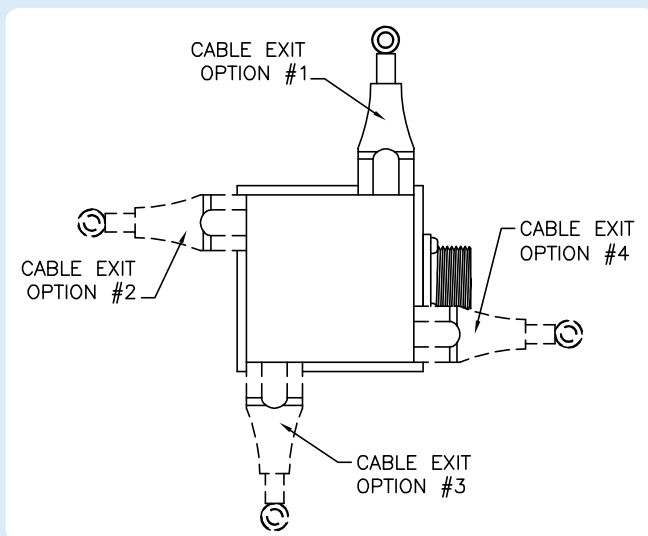
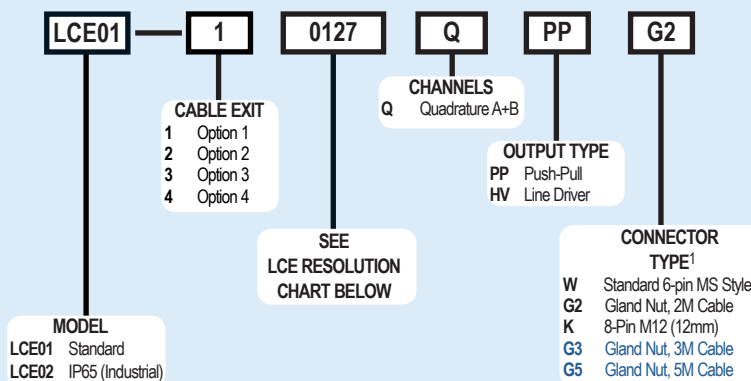
The Linear Cable Encoder (LCE) provides a low cost alternative for obtaining accurate linear measurements. As opposed to typical rotary shaft style encoders, the LCE has a retractable stainless steel cable, allowing for numerous and unusual measuring configurations. Placing the LCE away from harsh environmental 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 no longer necessary. The heart of the LCE is the popular 716 Series Encoder, the finest cube style encoder available. The 716 provides a reliable digital pulse train in either single channel or quadrature format, with resolutions down to 0.1mm per cycle. The small overall size, a variety of resolutions, and many different 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

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



For specification assistance call Customer Service at +44 (0)1978 262100

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"

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

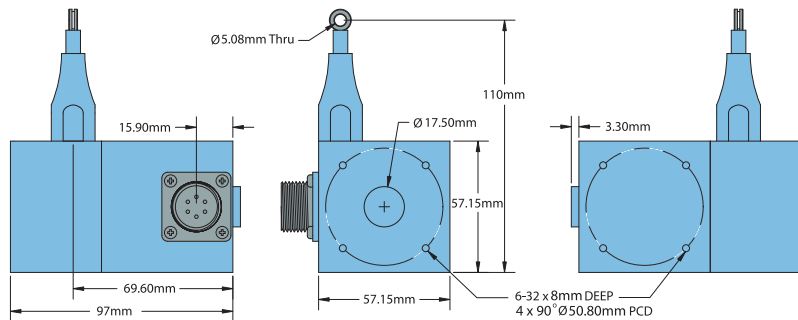
Mechanical

Full Stroke.....1.27M / 50" standard.
 FinishBlack powder coated aluminum
 Accuracy.....±0.10% of FSL
 Repeatability.....±0.015% of FSL
 Linear ResolutionSee resolution table
 Cable Material0.864mm Dia nylon coated stainless steel rope
 Cable Tension.....570 grams 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)

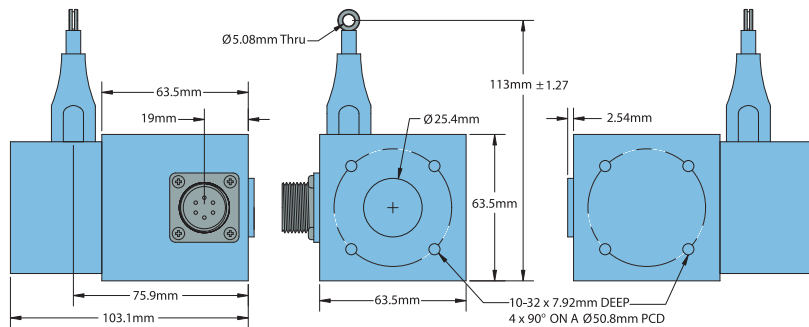
Environmental

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

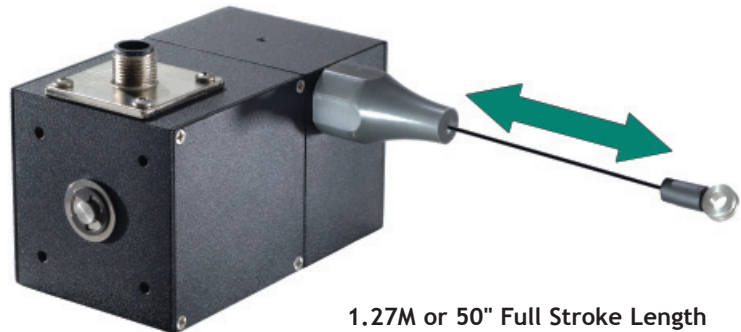
Model LCE Standard Housing (LCE01)



Model LCE IP65 Industrial Housing (LCE02)



All dimensions are in mm with a tolerance of ±0.127 or ±0.254 unless otherwise specified



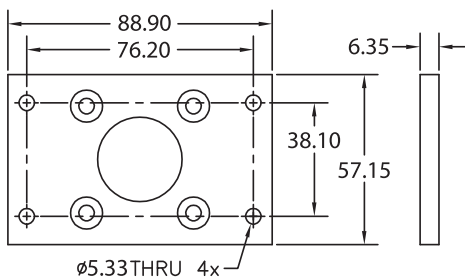
1.27M or 50" Full Stroke Length

Linear Encoders

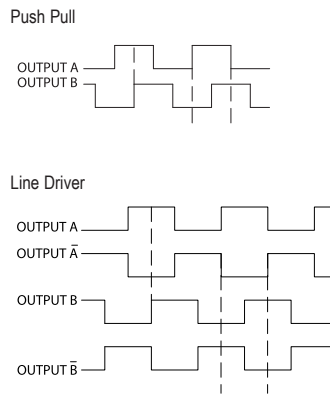
Optional Mounting Plate

Attaches to Standard or Industrial LCE in three different orientations.

Order Accessory Item 176064-01



Waveform Diagrams



Wiring Table

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	---	---	---