

Draw Wire Encoder – 2.5m



In complex mechanical systems, it is often very difficult to accurately measure the movement of a single part, particularly if it has several degrees of freedom. The draw wire encoder is a versatile solution to this very problem; it can be attached to a part using an M5 screw or fastened to the end with a zip tie, and the encoder itself has four M3 screw threads on the back for easy installation.



When the wire is pulled out, the sensor produces a quadrature signal to describe the length of wire exposed. The reel is spring loaded, so it will retract when there is no tension in the wire. Multiple draw wire sensors could be used to track the position in more than one dimension.

Product Specifications

Encoder Properties

Manufacturer Part Number	RLC63D-2500-D1F-1M
Output Circuit Type	Push-Pull
Length Resolution	100 $\mu\text{m}/\text{cyc}$
Wire Pull Length	2.5 m

Electrical Properties

Supply Voltage Max	5 V DC
Current Consumption Max	60 mA

Physical Properties

Wire Load Maximum	255 g
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Wire Pull Speed Max	1 m/s
Weight	580 g
Operating Temperature Min	-30 °C
Operating Temperature Max	90 °C
Screw Thread Size	M3
IP Rating	IP54