



**LINEAR
POTENTIOMETERS**

Powerful sensors to meet growing demands

Linear Potentiometer LRW



Features

- Measurement ranges:
25, 50, 100, 200, 300, 400, 500, 600, 750, 900 mm
- Displacement speed up to 10 m/s
- Linearity $\pm 0.05\%$ ¹⁾
- Operating temperature -30...+ 100 °C
- long live cycle
- Simple apparatus according to the EN 60079-11
- Protection class IP67
- Special lengths on request

Introduction

Linear potentiometers combine a simple design with very high precision. Inside the housing is a hybrid plastic layer. A cursor, that is connected to the push rod travels across this layer and divides the supplied voltage. The LRW line by WayCon is divided into four series. They all share the square housing which can quite simply be secured with a guide groove and clamps. The LRW1, 2 and 3 series feature an end-to-end push rod which varies by the tip of the push rod.

Technical data

GROUP ► CHARACTERISTICS ▼	LRW	LRW1	LRW2 / LRW3
Measuring range max.	900 mm	150 mm	
Linearity max. ¹⁾	±0.05 %	±0.05 %	
Displacement speed	up to 10 m/s		
Operating temperature	-30...+ 100 °C		
Life cycle	>25 x 10 ⁶ meter or >100 x 10 ⁶ operations (whichever is less)		
Resistance max.	10 kOhm	5 kOhm	
Protection class	IP60 optional IP65 / IP67	IP40	
Applicable voltage max.	60 V		
Housing	anodised aluminum, Nylon 66 G 25		

¹⁾ based on the measurement range

Linear Potentiometer LMI / LME / LMS



Features

- ▶ Measurement ranges:
50, 100, 200, 300, 400, 500, 600, 800, 1000 mm
- ▶ Displacement speed ≤ 5 m/s
- ▶ Linearity max. ± 0.05 % ¹⁾
- ▶ Operating temperature -30... +100 °C
- ▶ Linear displacement transducer with magnetic ring cursor
- ▶ long live cycle
- ▶ Simple apparatus according to the EN 60079-11
- ▶ Protection class IP67

Introduction

On the LMI, LME and LMS series the hybrid plastic layer is located inside an enclosed rod. A circular magnet travels along the rod without touching as the measurement object moves. Measuring the stroke in small to medium size cylinders is a classic application of this principle. Versions with simple fastening options, e.g. using brackets (LME12) or rod end bearings (LMS), however, also allow them to be used for quite different applications.

Technical data

GROUP ► CHARACTERISTICS ▼	LMI12 / LME12	LMI12-SE / LMI12-SL	LMS 18
Measuring range max.	1000 mm		
Linearity max. ¹⁾	± 0.05 %	± 0.35 %	± 0.05 %
Displacement speed	≤ 5 m/s		
Operating temperature	-30...+100 °C		
Life cycle	>25 x 10 ⁶ meter or >100 x 10 ⁶ operations (whichever is less)		
Resistance max.	20 kOhm		
Protection class	IP67		
Hysteresis	<250 μ m		
Housing	Aluminum / high grade steel	high grade steel	anodised aluminum

¹⁾ based on the measurement range

Linear Potentiometer LZW / LSW



Features

- ▶ Measurement ranges:
50, 100, 200, 300, 500, 800, 1000, 1250, 1500, 2000 mm
- ▶ Displacement speed up to 3 m/s
- ▶ Linearity $\pm 0.05\%$
- ▶ Operating temperature $-30...+100\text{ }^{\circ}\text{C}$
- ▶ long live cycle
- ▶ Simple apparatus according to the EN 60079-11
- ▶ Protection class max. IP67
- ▶ Special lengths on request

Introduction

Featuring self-aligning rod end bearings, bracket and flange mounts, the LZW, LZW1 and LZW2 series linear potentiometers by WayCon provide a mounting option for virtually any application. The robust LZW series, also available as IP67 version, is suitable for greater measurement ranges. LZW1 linear potentiometers were designed for applications in tight spaces. At a housing diameter of only 12.9 mm, they are truly compact, but measure just as accurately as the slightly larger LZW2 series.

Technical data

GROUP ► CHARACTERISTICS ▼	LZW	LZW1	LZW2	LSW
Measuring range max.	750 mm	250 mm	300 mm	2000 mm
Linearity max. ¹⁾	±0.05 %			
Displacement speed	≤5 m/s	≤10 m/s		
Operating temperature	-30...+ 100 °C			
Life cycle	>25 x 10 ⁶ meter or >100 x 10 ⁶ operations (whichever is less)			
Protection class max.	IP67	IP60	IP67	IP40
Housing	Aluminum	Aluminum / Nylon		

¹⁾ based on the measurement range

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