

# LINEAR POTENTIOMETER



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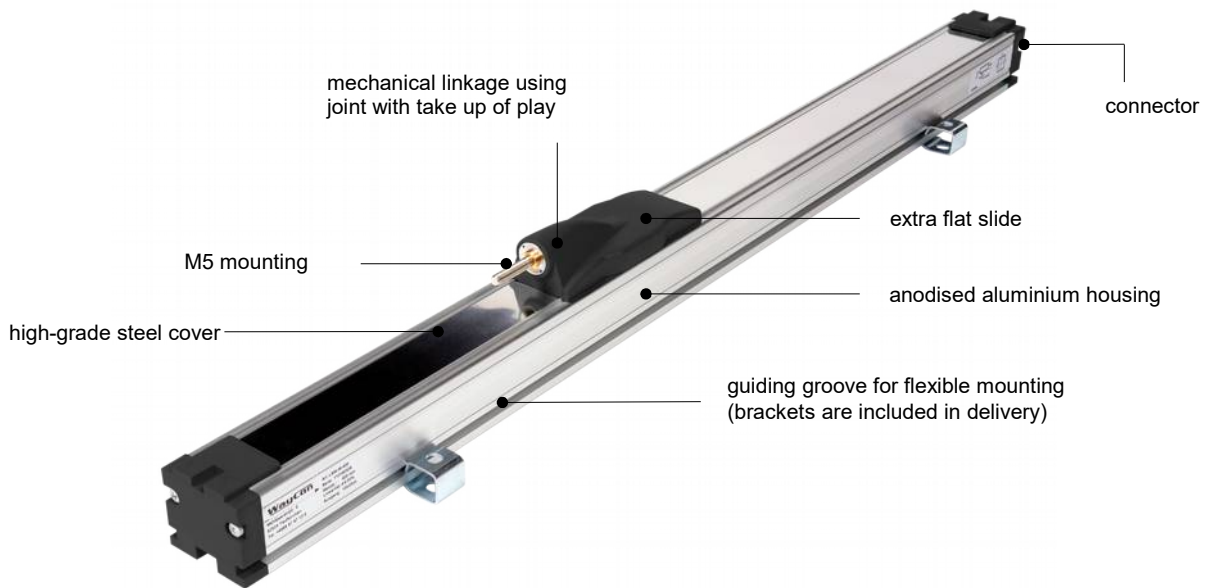
## LSW Series

### Key-Features:

- Rodless rectangular housing with slide (M5 thread)
- Measurement ranges from 100 to 2000 mm
- Displacement speed up to 10 m/s
- Linearity  $\pm 0.05\%$
- Working temperature  $-30...+100\text{ }^{\circ}\text{C}$
- Life cycle  $>25 \times 10^6 \text{ m}$  or  $>100 \times 10^6$  operations, whichever is less
- Simple apparatus according to the EN 60079-11 standard

## TECHNICAL DATA

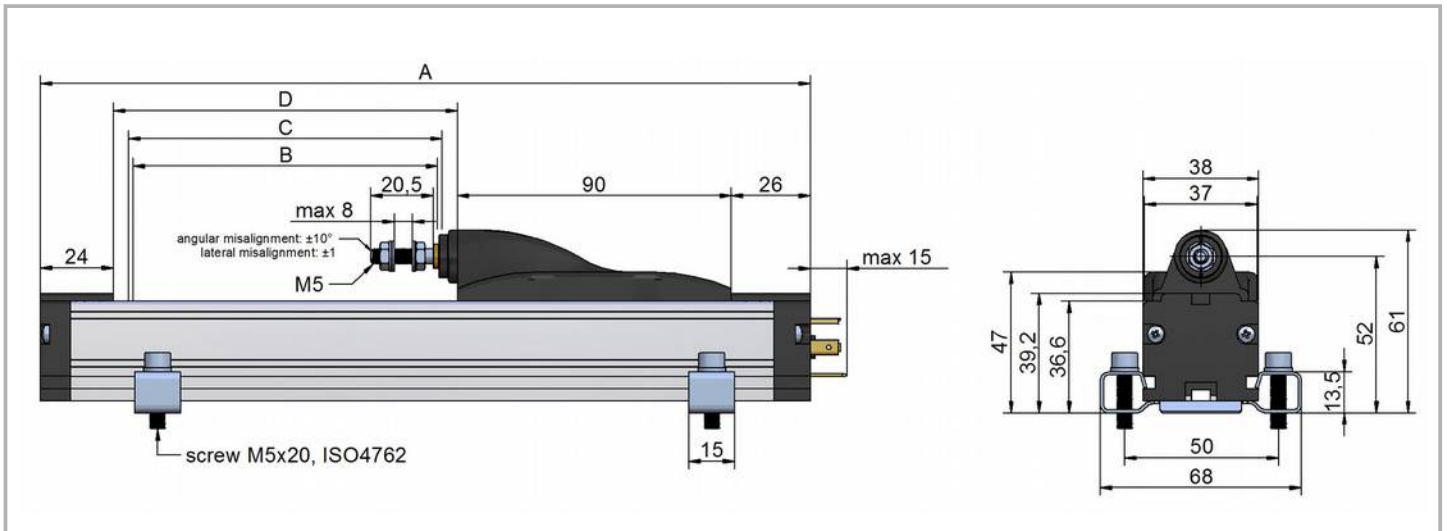
Protection class	IP40
Displacement speed	≤10 m/s
Displacement force	≤1.2 N
Linearität	±0.05 %
Resolution	Resolution depends on the signal quality of the reference voltage respectively supply voltage.
Repeatability	0.01 mm
Tolerance on resistance	±20 %
Recommended cursor current	<0.1 µA
Maximum cursor current	10 mA
Dissipation at 40 °C (0 W at 120 °C)	3 W
Maximum applicable voltage	60 V
Temperature coefficient of resistance	±200 ppm/°C
Temperature coefficient of the output voltage	≤5 ppm/°C
Electrical isolation	>100 MOhm at 500 V=, 1Bar, 1s
Dielectric strength	<100 µA at 500 V~, 50 Hz, 2 s, 1 Bar
Working temperature	-30...+100 °C
Storage temperature	-50...+120 °C
Housing material	anodised aluminium, Nylon 66 G 25
Mounting	adjustable brackets, or groove mounting



## DIMENSIONS AND ELECTRICAL DATA

Measurement range	[mm]	100	130	150	200	225	300	400	450	500	600	750	900	1000	1250	1500	1750	2000	
Useful electrical stroke (B) +3/-0	[mm]	100	130	150	200	225	300	400	450	500	600	750	900	1000	1250	1500	1750	2000	
Theoretical electrical stroke (C) ±1	[mm]	103	133	153	204	229	305	406	458	509	611	763	915	1017	1271	1521	1771	2021	
Resistance	[kOhm]	5						10						20					
Mechanical stroke (D)	[mm]	113	143	163	214	239	315	416	468	519	621	773	925	1027	1281	1531	1781	2031	
Housing length (A)	[mm]	253	283	303	354	379	455	556	608	659	761	913	1065	1167	1421	1671	1921	2171	

## TECHNICAL DRAWING



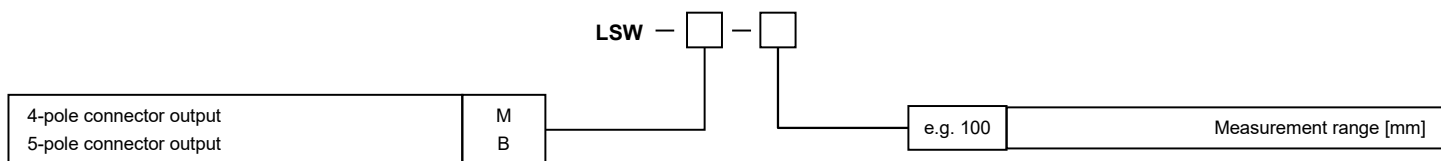
## ELECTRICAL CONNECTION AND ACCESSORIES

<p><b>Electrical connection</b></p> <p>3 (V+) 2 (cursor) 1 (V-)</p>	<p><b>Output LSW-M</b></p>	<p><b>Output LSW-B</b></p>	<p><b>Groove mounting</b></p> <p>screw M6 (ISO4017)</p>
<p><b>CON006: Mating connector for self assembly for LSW-M</b></p> <p>cable-ø: 6-8 mm 50 ±3 30</p>	<p><b>CON006-M12: Mating connector. Adapter to M12 for LSW-M</b></p> <p>M12x1 27 27 26.5 54</p>		
<p><b>CON011: mating connector for LSW-B</b></p> <p>IP40, 5 pole, cable diameter 4...6 mm, for self assembly</p>	<p><b>PMX-24 Signal Conditioner</b></p> <ul style="list-style-type: none"> <li>• Converts potentiometer signals into analog output signals</li> <li>• Input: potentiometer 1...20 kΩ</li> <li>• Configurable output</li> <li>• DIN-rail-mounting with face-side connector</li> <li>• For further information please contact WayCon or <a href="#">download</a> the data sheet.</li> </ul>		

### Installation instructions

- Please pay attention that the sensor is not used as a variable resistor.
- Please be careful while calibrating the sensor to set the stroke so that the output signal does not drop below 1 % or exceed 99 % of the supply voltage.

## ORDER CODE



## ACCESSORIES

### Connectors

CON006	4-pole connector for LSW-M
CON006-M12	Adapter to M12 output for LSW-M
CON011	5-pole connector for LSW-B

### Mounting parts (included in delivery)

PKIT059	Mounting kit (2 brackets) for measurement ranges 100-900 mm
PKIT061	Mounting kit (3 brackets) for measurement ranges 1000-2000 mm

### Signal Conditioner (DIN-Rail Mounting)

PMX-24	different analogue output signals in one device
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For further information please contact WayCon or [download](#) the data sheet.

Subject to change without prior notice.

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