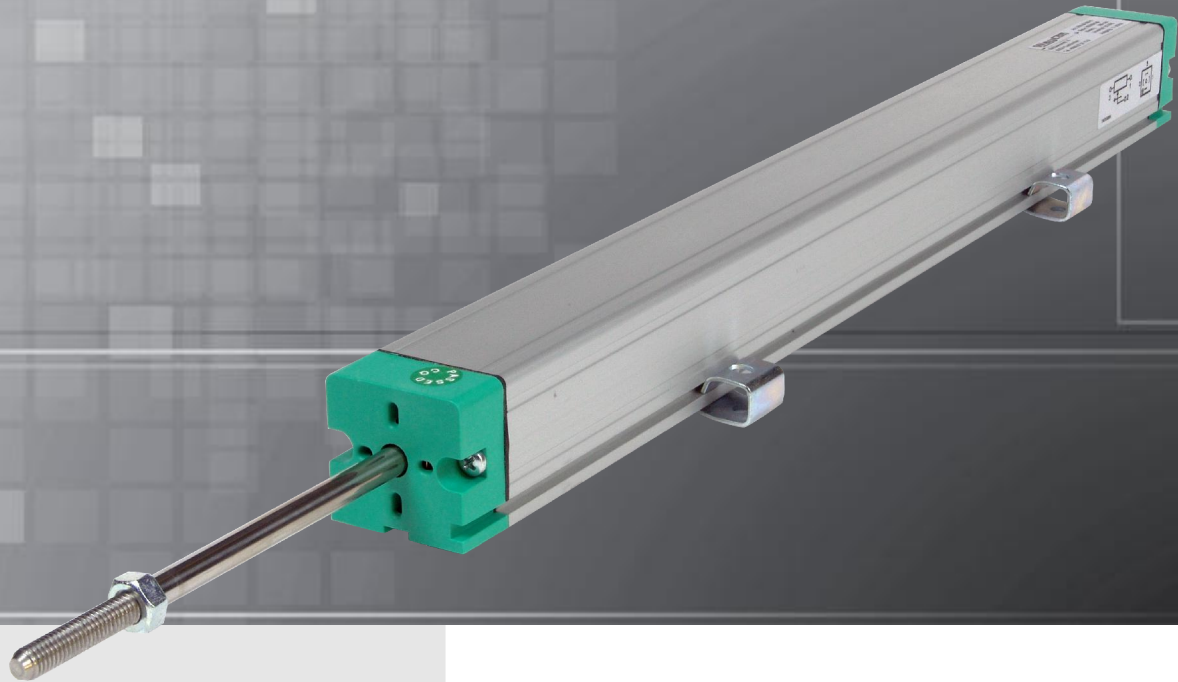


LINEAR POTENTIOMETER



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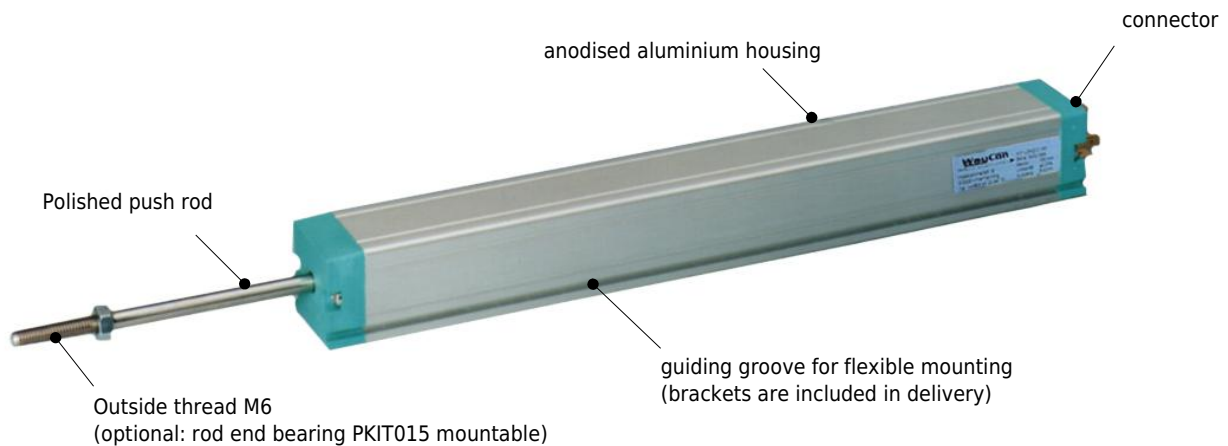
LRW Series

Key-Features:

- Rectangular housing with push rod and external thread M6
- Available measurement ranges from 50 to 900 mm
- Protection class up to IP67
- Displacement speed up to 10 m/s
- Linearity up to $\pm 0.05\%$
- Working temperature $-30\dots+100\text{ }^{\circ}\text{C}$
- Life cycle $>25 \times 10^6$ m or $>100 \times 10^6$ operations, whichever is less
- Simple apparatus according to the EN 60079-11 standard

TECHNICAL DATA

Measurement range	50 / 75 / 100 / 130 / 150 / 175 / 200 / 225 / 275 / 300 / 350 / 375 / 400 / 450 / 500 / 600 / 650 / 750 / 900 mm
Protection class	IP60, optional IP65 and IP67
Displacement speed	≤10 m/s (IP60/IP65), ≤3 m/s (IP67)
Displacement force	≤3.5 N (IP60), ≤25 N (IP65/IP67)
Linearity	±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	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 MΩ at 500 V~, 1 bar, 1 s
Dielectric strength	<100 µA at 500 V~, 50 Hz, 2 s, 1 bar
Working temperature	-30...+100 °C
Storage temperature	-50...+120 °C
Rod material	high grade steel, AISI 303 (IP60/IP65), C45 chrome steel 20µm (IP67)
Housing material	anodised aluminium, Nylon 66 G 25
Mounting	adjustable brackets, or groove mounting

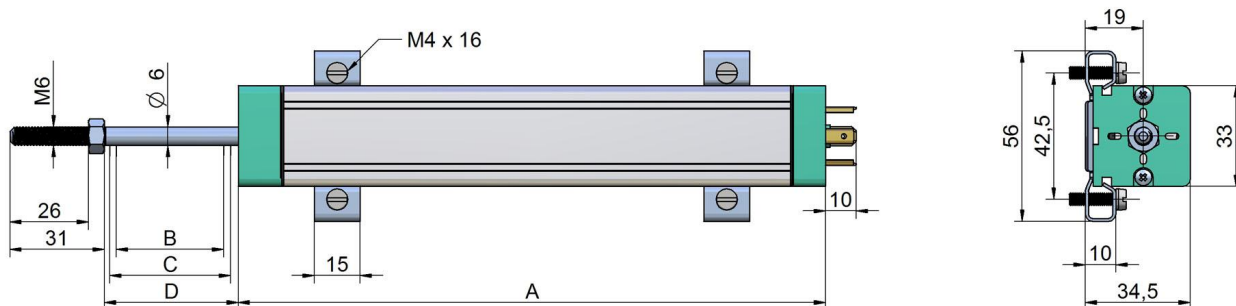


DIMENSIONS AND ELECTRICAL DATA

Useful electrical stroke (B) +3/-0	[mm]	50	75	100	130	150	175	200	225	275	300	350	375	400	450	500	600	650	750	900
Theoretical electrical stroke (C) ±1	[mm]	B + 3						B + 4				355	380	406	457	508	609	660	762	914
Resistance	[kΩ]	5						5				5	5	5	5	5	5	5	5	10
Mechanical stroke (D)	[mm]	B + 9						B + 10				361	386	412	463	518	619	670	772	924
Housing length (A)	[mm]	B + 63						B + 64				415	440	466	517	572	673	725	826	978
Housing length (A) for type LRW-IP	[mm]	B + 71.5						B + 72.5				424	448.5	474.5	525.5	580.5	681.5	733.5	834.5	986.5

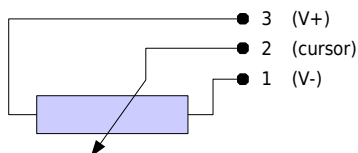
TECHNICAL DRAWING

LRW-M



ELECTRICAL CONNECTION

Electrical Connection LRW



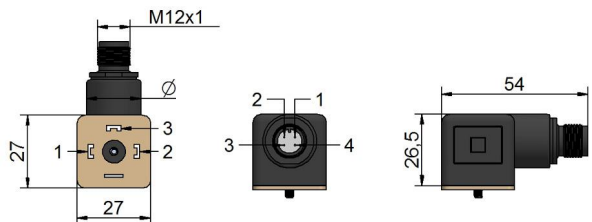
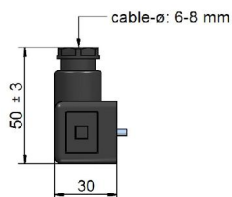
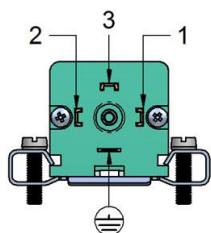
Installation instructions

- 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.

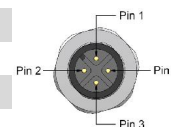
Output LRW-M

CON006: mating connector for self assembly, IP40, 4 pole, PG9 cable gland

CON006-M12: mating connector, adapter to M12

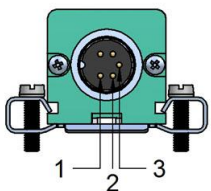


Signal	Pin No.	Cable colour K4P...
V-	1	brown
cursor	2	white
V+	4	black



Output LRW-B

CON011: mating connector for self assembly IP40, 5 pole, cable diameter 4...6 mm



Output LRW-IP

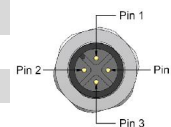
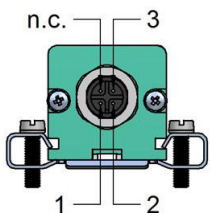
Cable with connector M12, 4 poles, shielded, IP67

K4P2M-S-M12	2 m, connector straight
K4P5M-S-M12	5 m, connector straight
K4P10M-S-M12	10 m, connector straight
K4P2M-SW-M12	2 m, connector angular
K4P5M-SW-M12	5 m, connector angular
K4P10M-SW-M12	10 m, connector angular

Signal	Pin No.	Cable colour K4P...
V-	1	brown
cursor	2	white
V+	3	blue

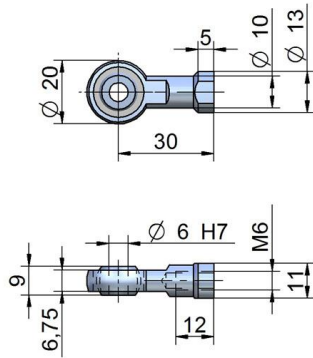
Mating Connector M12, 4 poles, shielded

D4-G-M12-S	straight, IP67
D4-W-M12-S	angular, IP67



ACCESSORIES

Rod eye bearing PKIT015



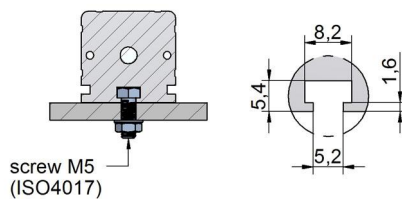
PMX-24 Signal Conditioner

- Converts potentiometer signals into analog output signals
- Input: potentiometer 1...20 kΩ
- Configurable output
- DIN-rail-mounting with face-side connector
- For further information please contact WayCon or [download](#) the data sheet.



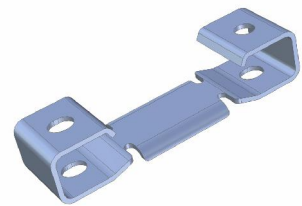
FIXATION

Groove mounting

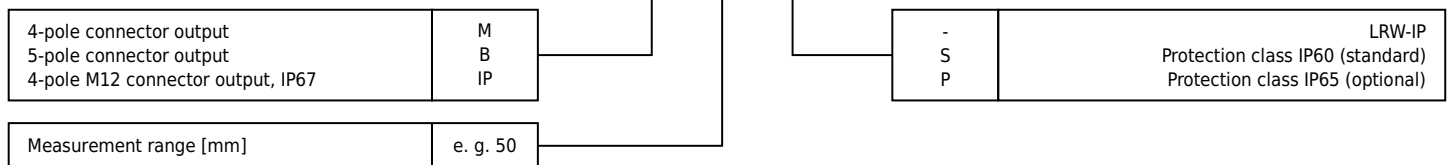


Mounting with brackets

included in delivery: 2 pieces, screws
As accessory: PKIT009



ORDER CODE



ACCESSORIES

Connection cables for LRW-IP, 4-pole, shielded, IP67

K4P2M-S-M12	2 m, M12-connector straight, for LRW-IP
K4P5M-S-M12	5 m, M12-connector straight, for LRW-IP
K4P10M-S-M12	10 m, M12-connector straight, for LRW-IP
K4P2M-SW-M12	2 m, M12-connector angular, for LRW-IP
K4P5M-SW-M12	5 m, M12-connector angular, for LRW-IP
K4P10M-SW-M12	10 m, M12-connector angular, for LRW-IP

Connectors

CON006	4-pole, for LRW-M
CON006-M12	Adapter on M12 for LRW-M
CON011	5-pole, for LRW-B
D4-G-M12-S	M12 straight, 4-pole, shielded, IP67 for LRW-IP
D4-W-M12-S	M12 angular, 4-pole, shielded, IP67 for LRW-IP

Signal Conditioner

PMX-24	converts the potentiometer signal into an analog output
For further information please contact WayCon or download the data sheet.	

Accessories

PKIT009	Mounting Kit (included in delivery)
PKIT015	Rod eye bearing (not included in delivery)

Subject to change without prior notice.

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