

NOTES

All the data reported in this brochure and the data sheet, like linearity, lifetime, temperature coefficient are valid for a sensor utilization as a ratiometric device with a max current across the cursor $I_c \leq 0.1 \text{ mA}$.

Do NOT use the position sensor as variable resistance!

When calibrating the transducer, be careful to set the stroke so that the output does not drop below 1% or rise above 99% of the voltage level.

MAINTENANCE

The sensors are maintenance free. However we recommend to lubricate the moving parts of the LRW-IP every 6 months.

DECLARATION OF EC-CONFORMITY

WayCon Positionsmesstechnik GmbH
Mehlbeerenstrasse 4
82024 Taufkirchen / Germany

This is to certify that the products

Classification
Series

Linearpotentiometer
LRW

fulfill the current request of the following EC-directives:
EMV-directive 2004/108/CE
applied harmonized standards:
EN 61000-6-2:2005, EN 61000-6-4:2007, EN 61326-1:2006

The declaration of conformity loses its validity if the product is misused or modified without proper authorisation.

Taufkirchen, 13.03.2013


Andreas Täger
CEO

INSTALLATION GUIDE

Linear Potentiometer Series LRW

For further information please see the data sheet at www.waycon.biz/products/linear-potentiometers/

FIRST STEPS

WayCon Positionsmesstechnik GmbH would like to thank you for the trust you have placed in us and our products. This manual will make you familiar with the installation and operation of our linear potentiometers. Please read this manual carefully before initial operation!

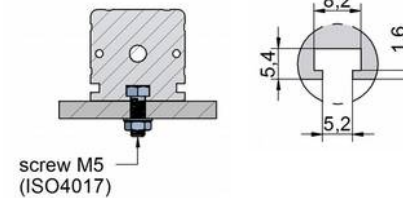
Unpacking and checking:

Carefully lift the device out of the box by grabbing the housing. After unpacking the device, check it for any visible damage as a result of rough handling during the shipment. Check the delivery for completeness.

If necessary consult the transportation company, or contact WayCon directly for further assistance.

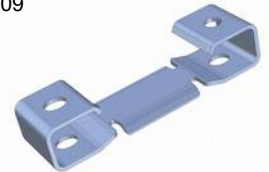
MOUNTING THE SENSOR

Groove mounting

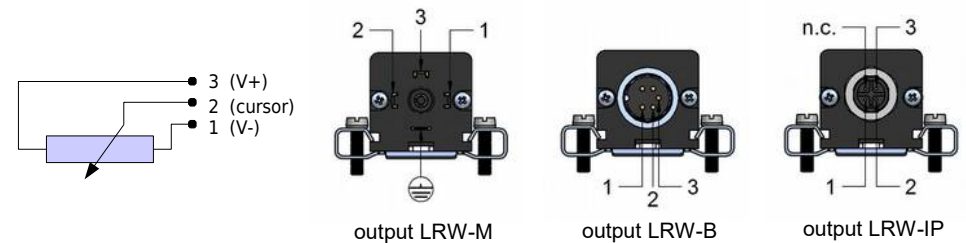


Mounting with brackets

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



ELECTRICAL CONNECTION



Sensor is to be used as voltage divider, using a maximum cursor current of $I_c \leq 0.1 \mu\text{A}$ (do NOT use the sensor as variable resistance!). Please pay attention to the notes on the last page.

INSTALLATION GUIDE

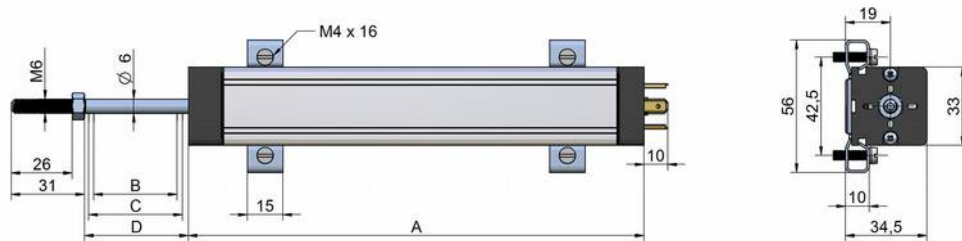
Linear potentiometer Series LRW

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TECHNICAL DRAWING

Do not remove limiter nut

Tightening torque max. 240 Ncm



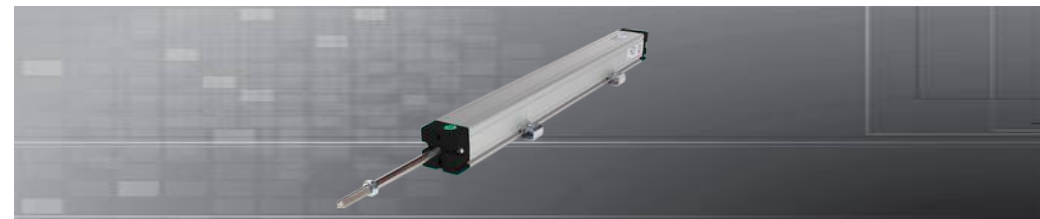
TECHNICAL DATA

Useful electrical stroke B: corresponds to the sensors measurement range

Theoretical electrical stroke C: actual length of the conductive path, that has to be longer than B, in order to get a valid electrical signal at the start and end point of the measurement range.

When calibrating the transducer, be careful to set the stroke so that the output does not drop below 1% or rise above 99% of the voltage level.

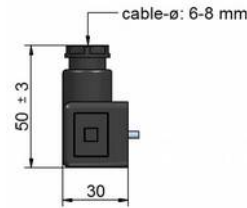
Useful electrical stroke (B) +3/-0	[mm]	50 - 175	200 - 300	350	375	400	450	500	600	650	750	900
Theoretical electrical stroke (C) ±1	[mm]	B + 3	B + 4	355	380	406	457	508	609	660	762	914
Resistance	[kOhm]	5	5	5	5	5	5	5	5	5	10	
Mechanical stroke (D)	[mm]	B + 9	B + 10	361	386	412	463	518	619	670	772	924
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



ACCESSORIES

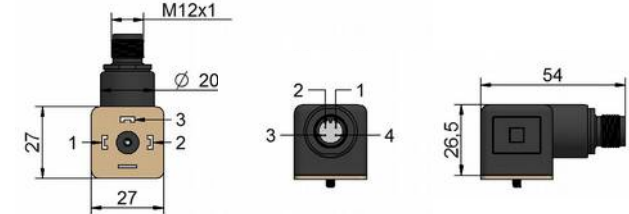
LRW-M

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



LRW-M

CON006-M12: mating connector adapter to M12



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

LRW-B

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

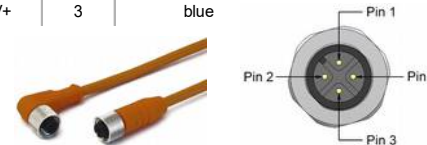


LRW-IP

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



PMX-24 Signal Conditioner

- Converts potentiometer signals into analog output signals: 4...20 mA, 0...10 V, 0...5 V, ±10 V, ±5 V
- Input: potentiometer 1...20 kΩ
- Configurable output
- DIN-rail-mounting with face-side connector
- For further information please check the PMX-24 data sheet, or contact WayCon

