

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 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. It is not necessary to lubricate the moving parts of the LRW1.

INSTALLATION GUIDE

Linear Potentiometer Series LRW1

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!

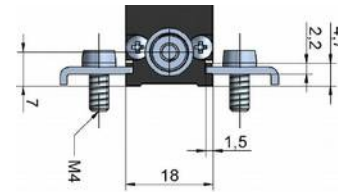
Unpacking and checking:

Carefully lift the position sensor 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.

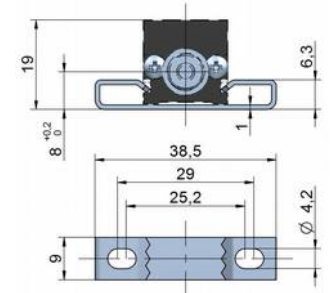
If necessary consult the transportation company, or contact WayCon directly for further assistance.

MOUNTING THE SENSOR

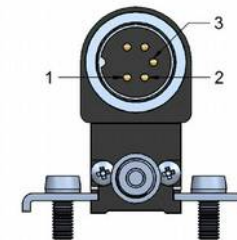
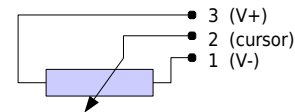
Groove mounting with clamps (included in delivery)



Mounting with brackets PKIT006 (accessory)



ELECTRICAL CONNECTION



Signal	LRW1-C	LRW1-F
V-	Pin 1	blue
cursor	Pin 2	yellow
V+	Pin 3	brown

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.

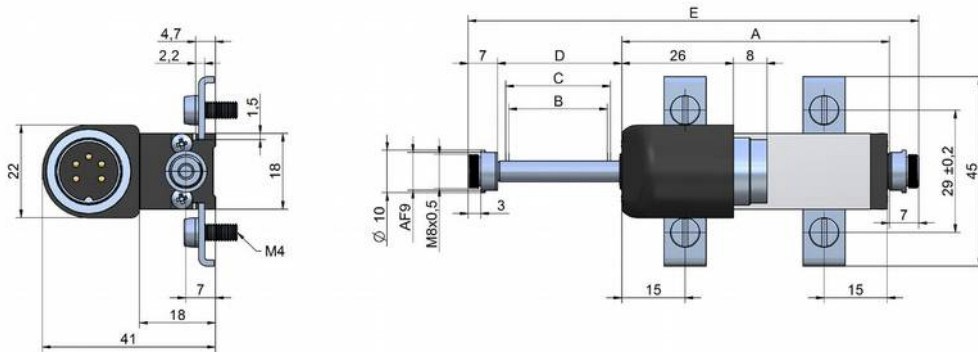
INSTALLATION GUIDE

Linear potentiometer Series LRW1

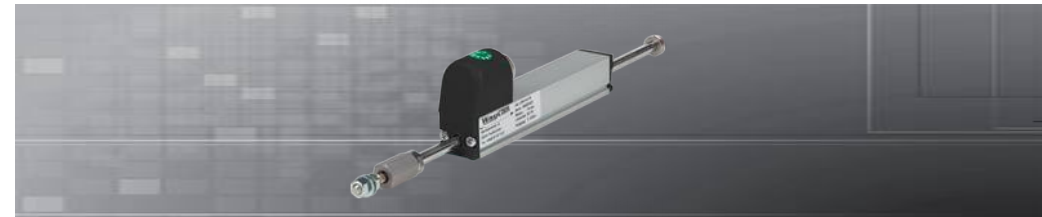
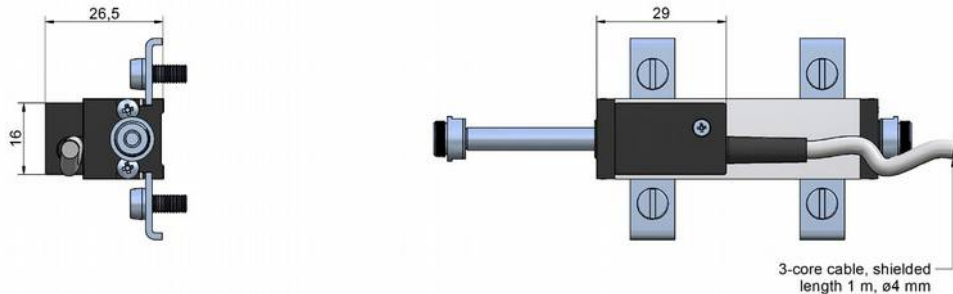
For further information please see the data sheet at www.waycon.biz/products/linear-potentiometers/

TECHNICAL DRAWING

LRW1-C: connector output, 5 poles



LRW1-F: cable output



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.

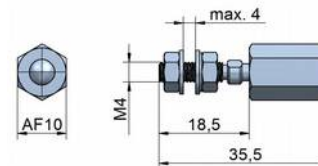
Useful electrical stroke (B) +3/-0	[mm]	25	50	75	100	150
Theoretical electrical stroke (C) ±1	[mm]	B + 1				
Resistance	[kOhm]	5				
Linearity	[%]	±0.2	±0.1			±0.05
Dissipation loss at 40 °C (0 W at 120 °C)	[W]	0.6	1.2	1.8	2.5	3.6
Maximum applicable voltage	[V]	25	60			
Mechanical stroke (D)	[mm]	B + 5				
Case length (A)	[mm]	B + 38				
Case length (E)	[mm]	107	157	207	257	357

ACCESSORIES

CON011: mating connector for LRW1-C for self assembly, IP40, 5 pole, cable diameter 4...6 mm



PKIT020: joint coupling (included in delivery)
max. angular misalignment: ±10 °
max. radial misalignment: ±0.5 mm



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

