

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 Ic ≤ 0.1 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. It is not necessary to lubricate the moving parts.

DECLARATION OF EC-CONFORMITY

WayCon Positionsmesstechnik GmbH
Mehlbeerenstrasse 4
82024 Taufkirchen / Germany

This is to certify that the products

Classification	Linearpotentiometer
Series	LRW2, LRW3

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 LRW2, LRW3

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

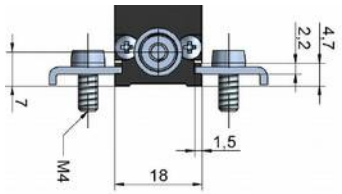
FIRST STEPS

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!

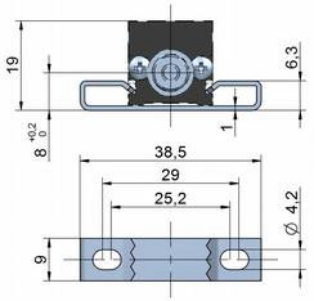
Unpacking and checking:
Carefully lift the device out of the box by grabbing the housing. After unpacking the device, check it for any visible damage as a result of rough handling during the shipment. Check the delivery for completeness.
If necessary consult the transportation company, or contact WayCon directly for further assistance.

MOUNTING THE SENSOR

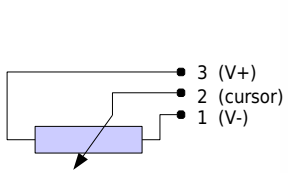
Groove mounting with clamps (included in delivery)

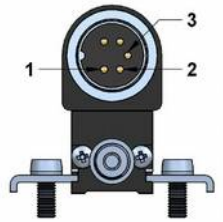


Mounting with brackets PKIT006 (accessory)



ELECTRICAL CONNECTION





Signal	LRW2-C/LRW3-C	LRW2-F/LRW3-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 Ic ≤ 0.1 µA (do NOT use the sensor as variable resistance!). Please pay attention to the notes on the last page.

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INSTALLATION GUIDE

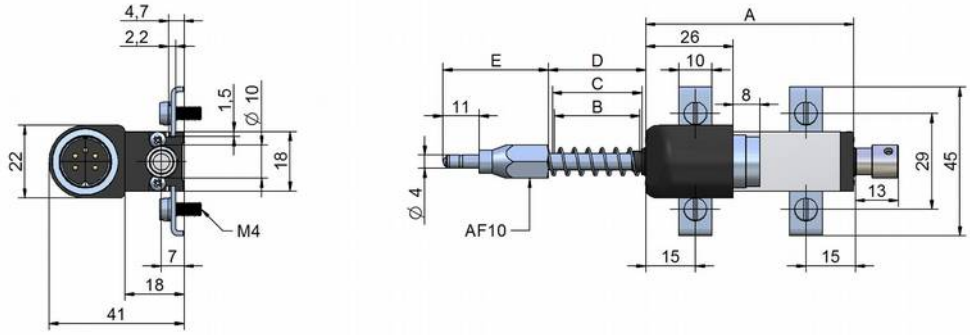
Linear potentiometer Series LRW2, LRW3

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

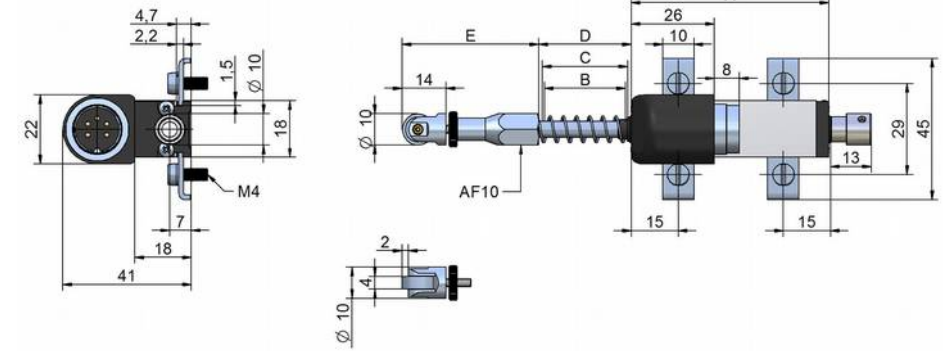


TECHNICAL DRAWING

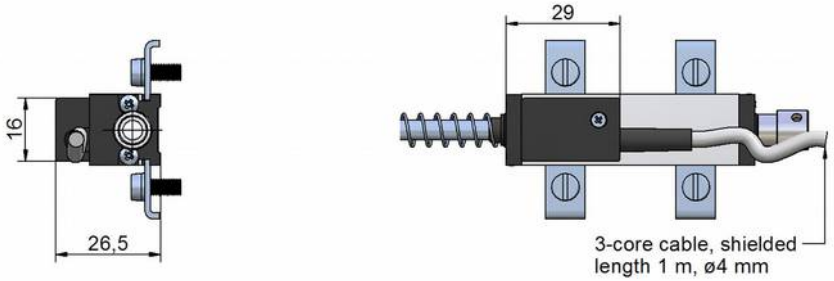
LRW2-C with ball tip and connector output



LRW3-C with roller tip and connector output



LRW2-F, LRW3-F with 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) +1/-0	[mm]	10	25	50	75	100	150
Theoretical electrical stroke (C) ±1	[mm]	B + 1					
Resistance	[kOhm]	1	1	5	5	5	5
Linearity	[%]	±0.3	±0.2	±0.1	±0.1	±0.1	±0.05
Dissipation at 40°C (0 W at 120 °C)	[W]	0.2	0.6	1.2	1.8	2.4	3.6
Maximum applicable voltage	[V]	14	25	60	60	60	60
Mechanical stroke (D)	[mm]	B + 5					
Case length (A)	[mm]	B + 38					
Tip length (E) LRW2	[mm]	32	32	40	40	40	40
Tip length (E) LRW3	[mm]	43	43	51	-	-	-
Total length LRW2	[mm]	108	138	196	251	307	426
Total length LRW3	[mm]	119	149	207	-	-	-

ACCESSORIES

CON011: mating connector for LRW2-C, LRW3-C
for self assembly,
IP40, 5 pole,
cable diameter 4...6 mm



Spare parts	
PTAS000	spare ball tip (LRW2: included in delivery)
PTAS001	spare roller tip (LRW3: included in delivery)
PKIT005	mounting kit brackets (LRW2, LRW3: included in delivery)

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



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