

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 linear transducer 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
Series

Linear potentiometer
LZW1

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 LZW1

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

FIRST STEPS

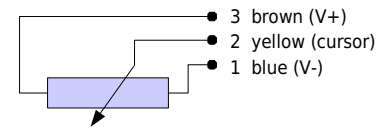
WayCon Positionsmesstechnik GmbH would like to thank you for the trust you have placed in us and our products. This manual will make you familiar with the installation and operation of our linear potentiometers. Please read this manual carefully before initial operation!

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.

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.

ACCESSORIES

Spare parts

- | | |
|--------|--|
| STA074 | bracket for LZW1-S |
| SND001 | rod end bearing with M4 external thread, housing side for LZW1-A |
| SND002 | rod end bearing with M4 internal thread, rod side for LZW1-A |

PMX-24 Signal Conditioner

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



INSTALLATION GUIDE

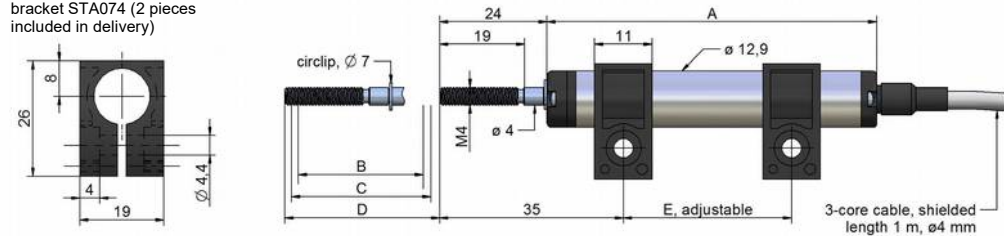
Linear potentiometer Series LZW1

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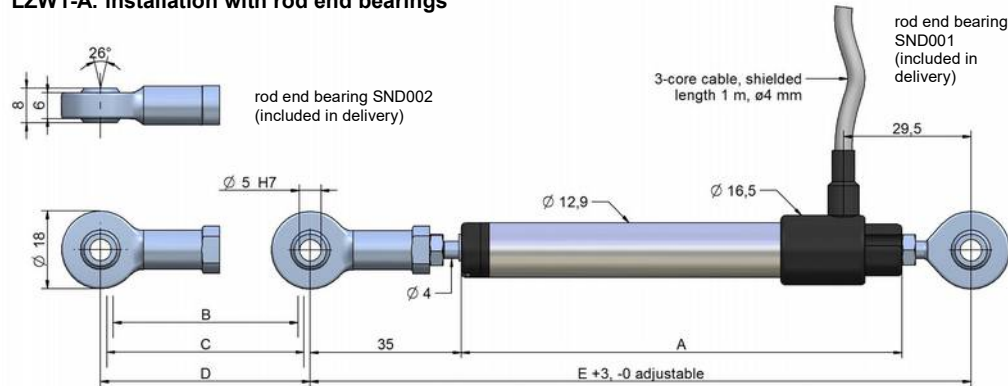
TECHNICAL DRAWING

LZW1-S: installation with brackets

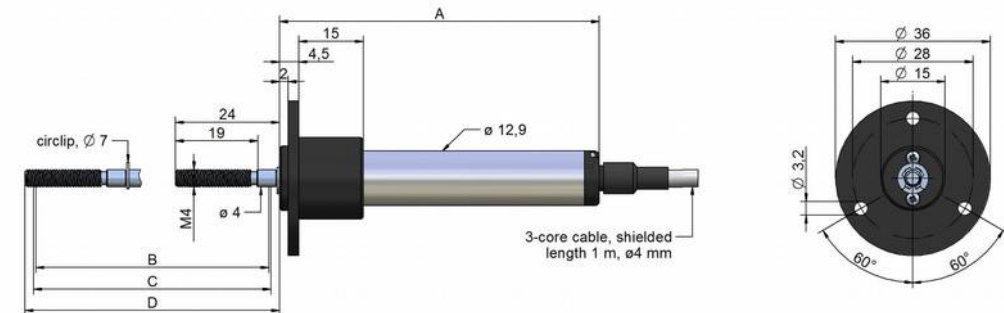
bracket STA074 (2 pieces included in delivery)



LZW1-A: installation with rod end bearings



LZW1-F: installation with flange



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.

Measurement range	[mm]	25	50	75	100	125	150	200	250	
Electrical stroke (B) +1/-0	[mm]	25	50	75	100	125	150	200	250	
Theoretical electrical stroke (C) ±1	[mm]	B + 1								
Resistance	[kOhm]	1	2	3	4	5	6	8	6	
Linearity	[±%]	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05	
Dissipation at 40°C (0 W at 120°C)	[W]	0.5	1	1.5	2	2.5	3	3	3	
Maximum applicable voltage	[V]	20	40	60						
Mechanical stroke (D)	[mm]	B + 5								
Case length (A) LZW1-S	[mm]	74.5	99.5	124.5	149.5	174.5	199.5	249.5	299.5	
Case length (A) LZW1-A	[mm]	102	127	152	177	202	227	277	327	
Case length (A) LZW1-F	[mm]	74.5	99.5	124.5	149.5	174.5	199.5	249.5	299.5	
Recommended distance between brackets (E)	[mm]	42	67	92	117	142	167	217	267	
Minimum distance between rod end bearings (E)	[mm]	153	178	203	228	253	278	328	378	
Weight LZW1-S	[g]	45	55	65	75	85	95	115	135	
Weight LZW1-A	[g]	70	80	90	100	110	120	140	160	
Weight LZW1-F	[g]	60	70	80	90	100	110	130	150	