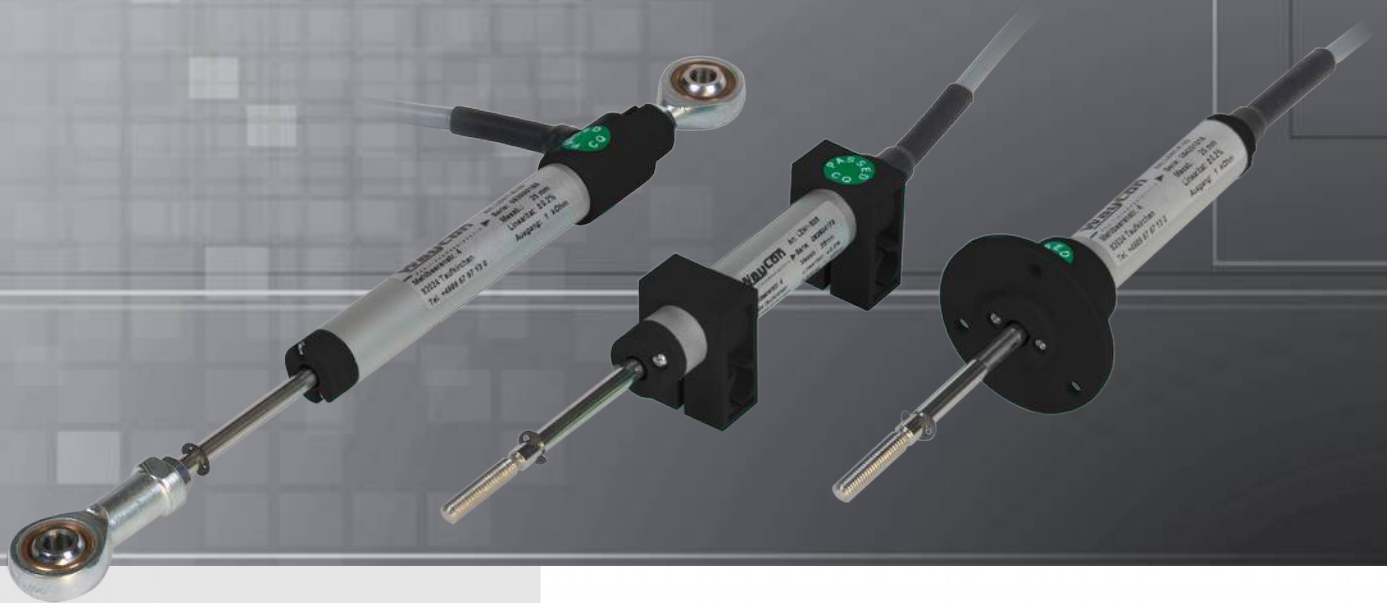


LINEAR POTENTIOMETER



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LZW1 Series

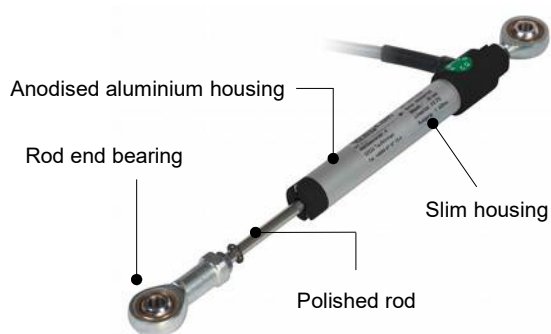
Key-Features:

- Housing diameter 12.9 mm
- Flexible mounting with brackets, rod end bearings or flange
- Available measurement ranges from 25 to 250 mm
- Protection class IP60
- Displacement speed ≤ 10 m/s
- Linearity up to ± 0.05 %
- Working temperature $-30...+100$ °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

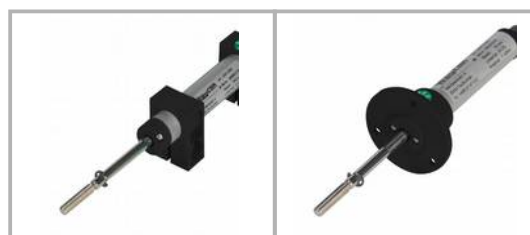
Measuring range	[mm]	25 / 50 / 75 / 100 / 125 / 150 / 200 / 250
Protection class		IP60
Displacement speed	[m/s]	≤10
Displacement force	[N]	≤0.5
Resolution		Resolution depends on the signal quality of the reference voltage respectively supply voltage.
Tolerance on resistance	[%]	±20
Recommended cursor current	[µA]	<0.1
Maximum cursor current	[mA]	10
Temperature coefficient of the output voltage	[ppm/°C]	<1.5
Vibrations DIN IEC68T2-6		20 g, 5...2000 Hz
Electrical isolation		>100 MOhm at 500 V~, 1 Bar, 2 s
Dielectric strength		<100 µA at 500 V~, 50 Hz, 1 Bar, 2 s
Working temperature	[°C]	-30...+100
Storage temperature	[°C]	-50...+120
Rod material		high-grade steel AISI 303
Housing material		anodised aluminium, Nylon 66 G 25
Mounting		LZW1-S with brackets, LZW1-A with rod end bearings, LZW1-F with flange

LZW1-A



LZW1-S

LZW1-F

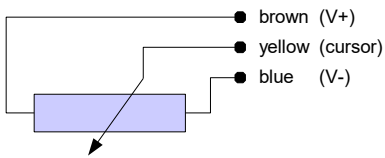


DIMENSIONS AND ELECTRICAL DATA

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

ELECTRICAL CONNECTION

Cable output connection



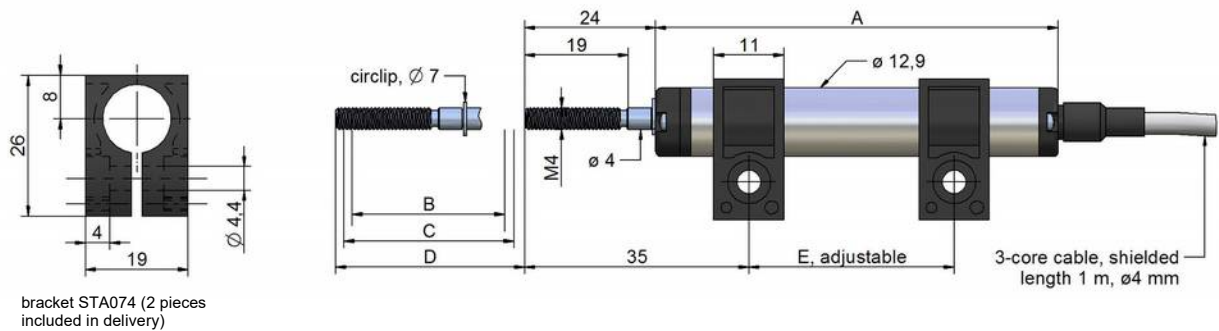
Installation instructions

- 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.

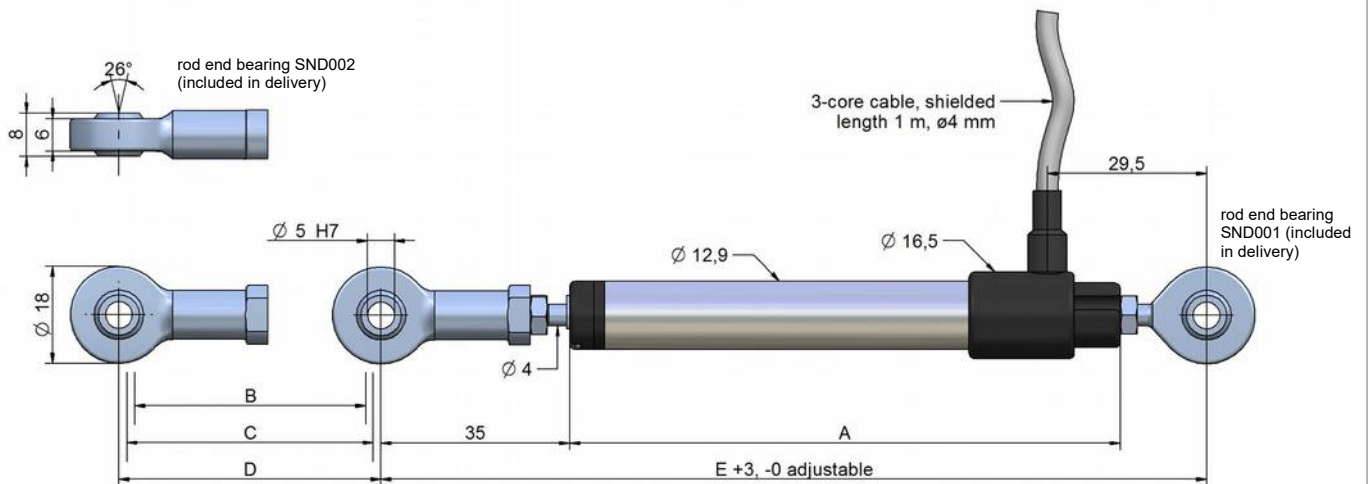
It is recommended to keep all sliding parts lubricated, at least every 6 months.

TECHNICAL DRAWINGS

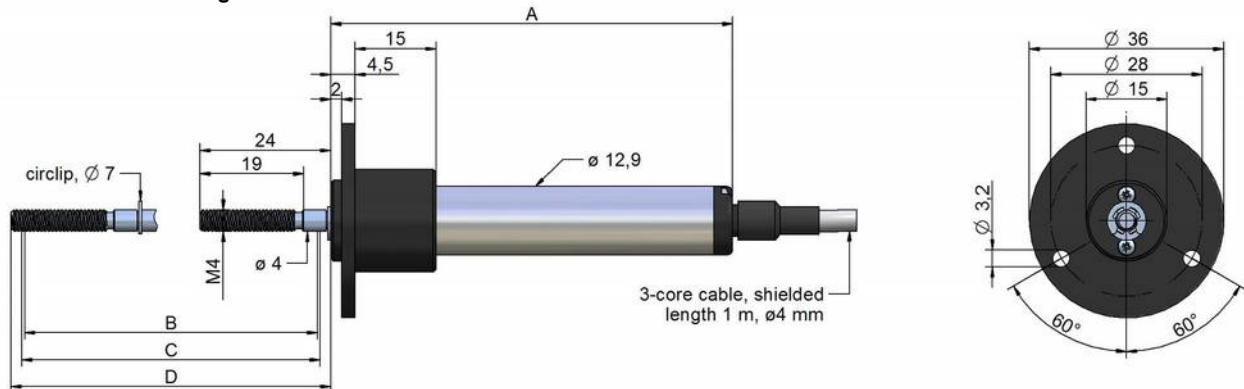
LZW1-S: installation with brackets



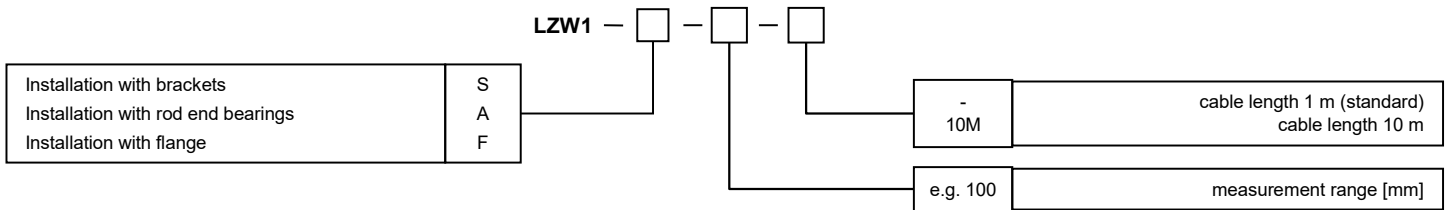
LZW1-A: installation with rod end bearings



LZW1-F: installation with flange



ORDER CODE



OPTIONS AND ACCESSORIES

Options

-10M cable length 10 m

Accessories (included in delivery)

STA074 bracket
SND001 rod end bearing with M4 external thread, housing side
SND002 rod end bearing with M4 internal thread, rod side

Signal conditioner

PMX-24 different analog output signals in one device

For further information please contact WayCon or [download](#) the data sheet.



Subject to change without prior notice.

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