

LINEAR POTENTIOMETER



LZW2 Series

Key-Features:

- Housing diameter 19 mm
- Flexible mounting with brackets, rod end bearings or flange
- Available measurement ranges from 25 to 300 mm
- Displacement speed ≤ 10 m/s
- Linearity up to ± 0.05 %
- Protection class IP60
- Working temperature $-30 \dots +100$ °C
- Life cycle $> 25 \times 10^6$ meters or $> 100 \times 10^6$ operations, whichever is less
- Simple apparatus according to the EN 60079-11 standard

Content:

Technical Data2
Electrical Connection3
Technical Drawing3
Order Code4
Options & Accessories4

TECHNICAL DATA

Measurement range	[mm]	25 / 50 / 75 / 100 / 125 / 150 / 175 / 200 / 250 / 300
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
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		LZW2-S with brackets, LZW2-A with rod end bearings, LZW2-F with flange

LZW2-A



LZW2-S



LZW2-F

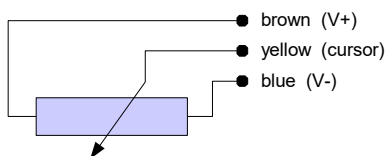


DIMENSIONS AND ELECTRICAL DATA

Measurement range	[mm]	25	50	75	100	125	150	175	200	250	300
Electrical stroke (B) +1/-0	[mm]	25	50	75	100	125	150	175	200	250	300
Theoretical electrical Stroke (C) ±1	[mm]	B + 1									
Resistance	[kOhm]	1	2	3	4	5	6	7	8	10	12
Linearity	[±%]	0.2	0.1	0.1	0.1	0.05	0.05	0.05	0.05	0.05	0.05
Maximum dissipation at 40 °C (0 W at 120 °C)	[W]	0.8	1.6	2.8	3						
Maximum power supply	[V]	20	40	60							
Mechanical stroke (D)	[mm]	B + 5									
Case length (A) LZW1-S	[mm]	83.5	108.5	133.5	158.5	183.5	208.5	233.5	258.5	308.5	358.5
Case length (A) LZW1-A	[mm]	110	135	160	185	210	235	260	285	335	385
Case length (A) LZW1-F	[mm]	83.5	108.5	133.5	158.5	183.5	208.5	233.5	258.5	308.5	358.5
Recommended distance between brackets (E)	[mm]	47	72	97	122	147	172	197	222	272	322
Minimum distance between rod end bearings (E)	[mm]	163	188	213	238	263	288	313	338	388	438
Weight LZW1-S	[g]	90	105	130	160	175	190	205	215	245	275
Weight LZW1-A	[g]	110	125	150	180	195	210	225	235	260	285
Weight LZW1-F	[g]	100	115	140	170	185	200	215	225	255	280

ELECTRICAL CONNECTION

Cable output connection



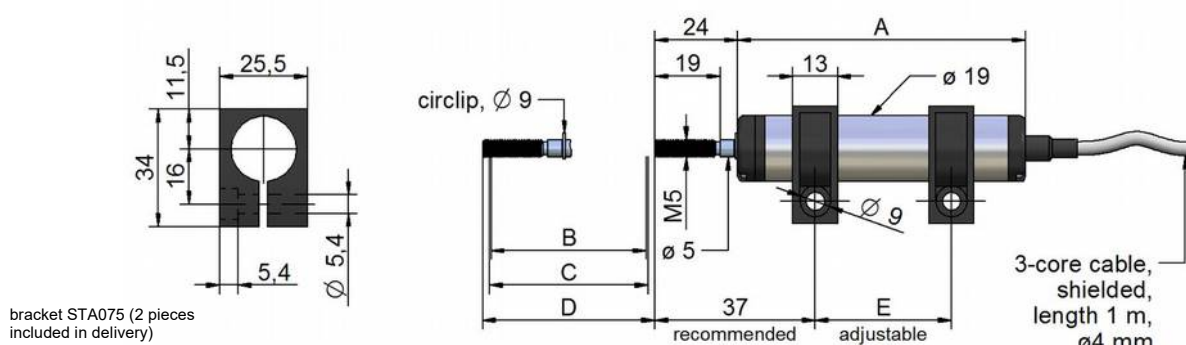
Installation instructions

- 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.

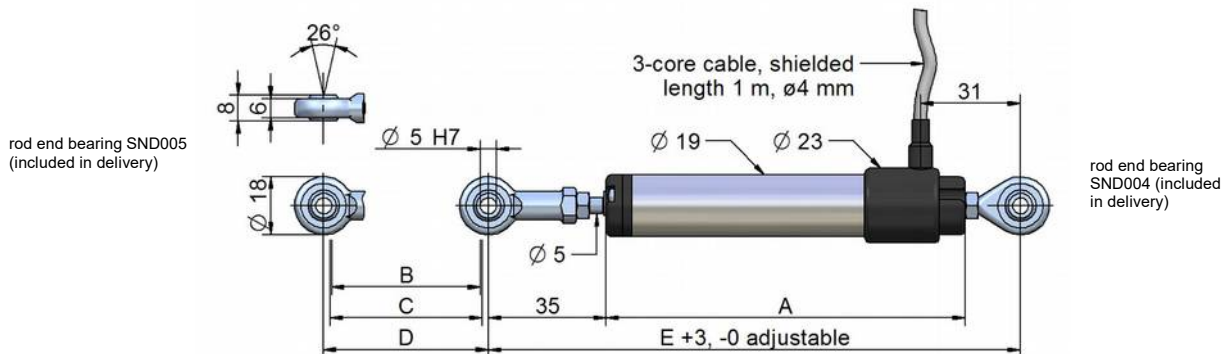
It is recommended to keep all sliding parts lubricated, at least every 6 months.

TECHNICAL DRAWING

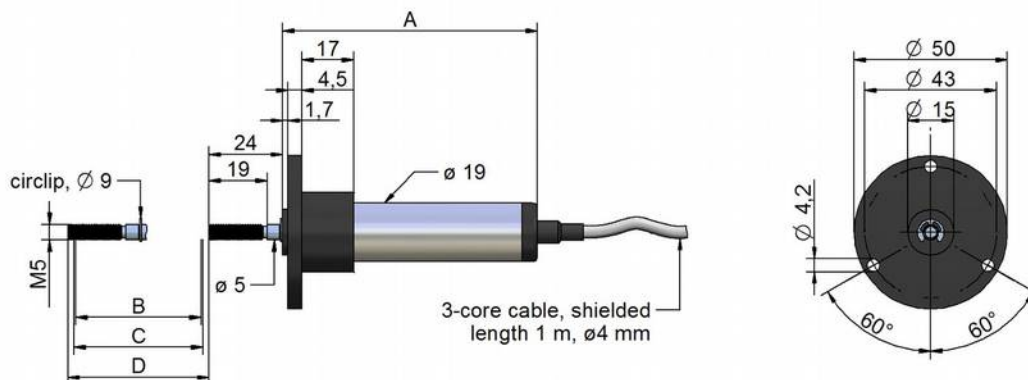
LZW2-S: installation with brackets



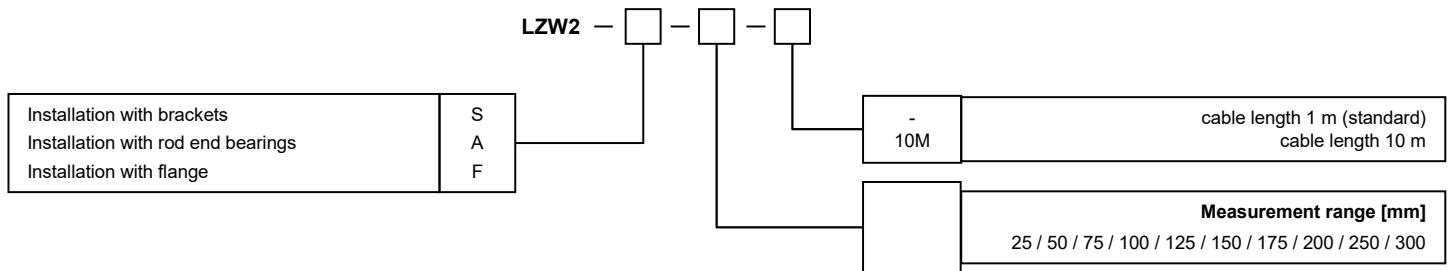
LZW2-A: installation with rod end bearings



LZW2-F: installation with flange



ORDER CODE



OPTIONS AND ACCESSORIES

Options

10M cable length 10 m

Accessories (included in delivery)

STA075 bracket

SND004 rod end bearing with M5 external thread, housing side

SND005 rod end bearing with M5 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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