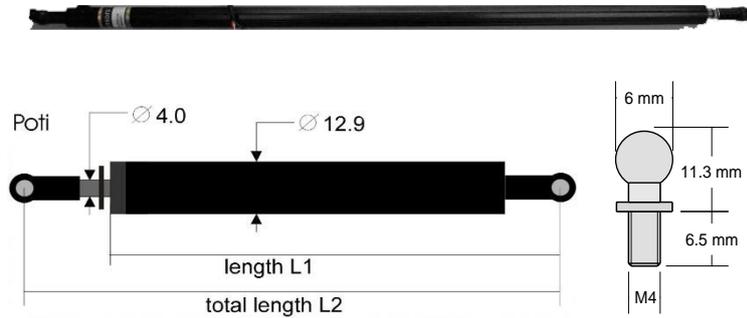


SA-LP250/350-000

Linear potentiometer



electrical stroke	length L1	length L2 (in)	length L2 (out)
250	335	352	602
350	435	452	802

all values in [mm]; tolerance ± 1 mm

Key Features:

- Linear potentiometers are designed to convert linear movement into a proportional voltage output using a simple 3-wire, low current operating circuit.

Usage

- to measure linear motions e.g. front fork, steering, or damper movement

Technical specifications

		SA-LP250	SA-LP350
Electrical characteristics			
Mechanical stroke ± 1 mm	mm	250	350
Retracted mounting distance	mm	335	435
Impedance	k Ω	10	14
Linearity	%	0.15	0.15
Supply voltage (2D System)	V dc	5	5
Maximum supply voltage	V dc	130	130
Mechanical characteristics			
Cable & connector (standard)		Special options on customer request	
Type		PUR	
Wire cross section	mm ²	3x0.14	
Connector		Binder 719 5PM	
Resolution	mm	<0.01	<0.01
Maximum moving speed	m/s	10	10
Operation life	Mio cycles	>50	>50
Weight	g	114	125
Environmental			
Operating temperature range	°C	-40 to +85	-40 to +85
Shock	G	40	40
During a time period of	ms	10	10
Vibration tested at	G	12	12
with	Hz	1000	1000

Ordering information

SA-LP250-000

SA-LP350-000

SA-LP250/350-000

Linear potentiometer

Formulas

SA-LPxxx-000		Multiplier		Offset		
12 Bit A/D	Stroke [mm]	=	xxx/4095	*	Digits	- 0
16 Bit A/D	Stroke [mm]	=	xxx/65535	*	Digits	- 0
Voltage *)	Stroke [mm]	=	50		Volt	- 0
			SA-LP250		SA-LP350	

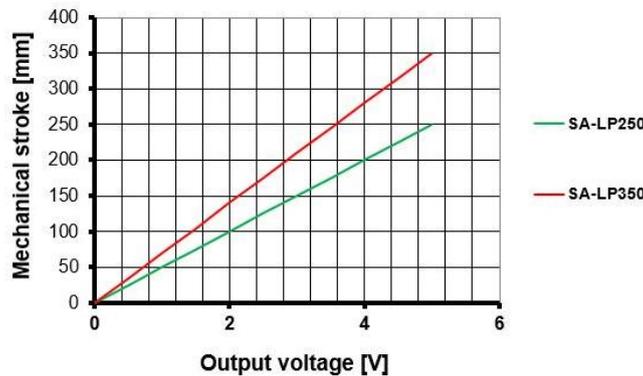
Remark: Replace the xxx with the mechanical stroke of your sensor.

*) You can use the "voltage formula" only, if the voltage supply of the sensor is +5 V.



In case of other sensor supplying, you must use the following general formula to calculate the physical value:
Stroke [mm] = xxx / voltage supply * Volt - 0

xxx= mechanical stroke 250 or 350



Installation advice

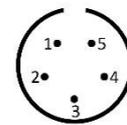
- Metal heads with thread Mx4 are fixed to e.g. diving tube and fork bridge. The potentiometer is simply plugged onto the metal heads.
- Make sure that the potentiometer moves easily
- Do not stress the potentiometer over its end position
- To avoid water entering the housing, mount the grinder bar facing downwards.

Connector layout

Connector type

Analog line, Binder 719 5PM

Pin	Name	Description	Color
1	AGND	Analog ground	black
2	Power	Power supply	red
3	n.c.	Not connected	
4	n.c.	Not connected	
5	Signal	Analog signal	white



Front view

Sensor with open wires (optional on request)

Name	Description	Color
AGND	Analog ground	black
Power	Power supply	red
Signal	Analog signal	white



Possible options concerning plug and cable on customer request:

For the first order of special customer options please use the following order code:

SA-LPxxx-000. Replace the xxx with the range of your sensor. After the first order you will get from 2D a uniquely order code for your next orders.