

FDPL2S

Linear Motion Potentiometer

- Measurement ranges 50 mm to 750 mm
- Output 2 k Ω to 20 k Ω
- Non-linearity 0.075 % to 0.1 %
- Dimensions 31 x 31 x 127 ... 827 mm, shaft \varnothing 6 mm

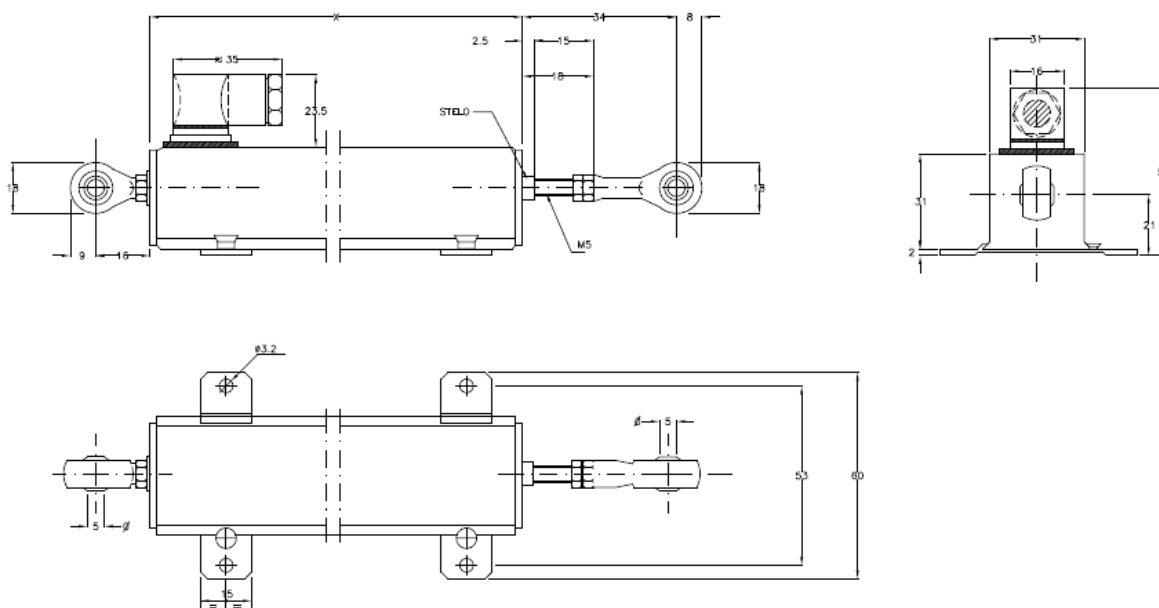


Linear motion potentiometers series FDPL2S change mechanical linear motions into the corresponding electrical signals. Accurate, stout and reliable, they solve any problem linked to measuring and positioning control on any kind of industrial machine. Ball joints are provided at both ends for air fixing, which allows to compensate slight misalignments in the application.

More Features:

- 20 Mio. operations life
- Moving speed up to 1 m/s
- Shaft diameter 6 mm
- Stout aluminium case
- Easy clamping by movable feet or ball joints
- Electrical connections by a connector
- Protection IP65

■ Standard Dimension



Stroke, nominal	50 mm	100 mm	150 mm	200 mm	250 mm	300 mm	400 mm	500 mm	750 mm
X	127 mm	177 mm	227 mm	277 mm	327 mm	377 mm	477 mm	577 mm	827 mm

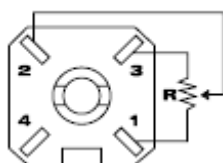
Dimensions in „mm“, approx. values

These drawings are for information only and not intended for construction purpose.
Please contact us for detailed drawings.

■ Specifications

Stroke, nominal	50 mm	100 mm	150 mm	200 mm	250 mm	300 mm	400 mm	500 mm	750 mm
Electrical stroke	nominal stroke ± 1 mm								
Mechanical stroke	nominal stroke ± 3 mm								
Resistive element	conductive plastic								
Resistive value	standard: 5 k Ω , (on request: 2 k Ω , 10 k Ω , 20 k Ω)								
Total resistance tolerance	standard ± 20 %, (on request: ± 10 %)								
Independent linearity	± 0.075 %							± 0.1 %	
Resolution	infinite								
Output smoothness	< 0.1 % against input voltage								
Contact resistance variation	< 2 % C.R.V.								
Power rating	0.5 W	1 W	1.75 W	2 W	2.25 W	2.5 W	3 W	4 W	4 W
Resistance temperature coefficient	± 400 ppm/ $^{\circ}\text{C}$								
Insulation resistance	> 1000 M Ω at 500 VDC								
Electrical connections	connector								
Case material	anodised aluminium with nylon and glass closing flanges								
Shaft material	stainless steel on autolubricating alebox – free rotation								
Sliding friction	0.1 kg								
Max. strain on closing flanges	10 kg								
Fixing	freely movable clamping feet or ball joints								
Life	20 Mio. motions without load								
Environmental protection	IP65								
Operating temperature	$-25 \dots +85$ $^{\circ}\text{C}$								
Stem max. linear speed	1 m/s								
Vibration (10 ... 2000 Hz)	15 g								
Shock (11 ms)	50 g								

■ Connection Diagram



Pin 1: Resistance 0Ω with stem in

■ Ordering Information

Model	Stroke in mm	Resistance in Ohm	Resistance Tolerance
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Example:

FDPL2S	50	5K	± 20 %
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Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.