



## FDPLS Linear Motion Potentiometer

- Excellent Linearity
- Stroke 50 to 950 mm
- Infinite Resolution
- Easy fixing method



Linear motion potentiometers series FDPLS change mechanical linear moves 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.

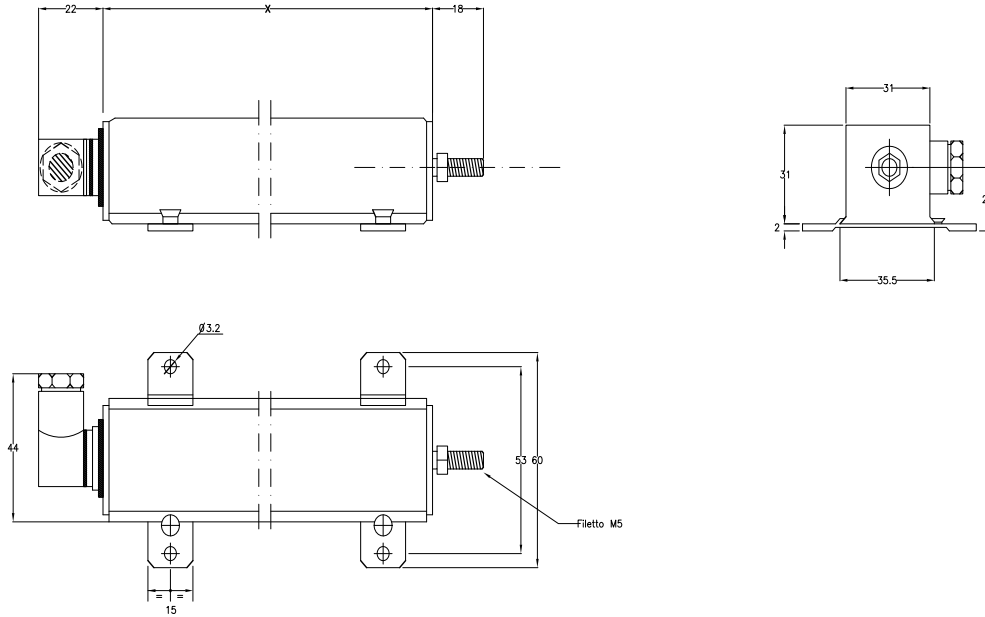
### More Features:

- 20 Mio. operations life
- Conductive plastic resistance element
- Moving speed up to 1 m/s
- Shaft diameter 6 mm
- Stout aluminium case
- Easy clamping by movable feet
- Electrical connections by orientable connector
- IP65 protection
- Available fittings: return spring, ball joint, out-of-alignment joint, feeler pin

### Specifications

Strokes	50 mm   100 mm   150 mm   200 mm   250 mm   300 mm   400 mm   500 mm   750 mm   950 mm
Resistive element	conductive plastic
Resistive value	standard: 5 kOhm on request: 2 kOhm, 10 kOhm, 20 kOhm
Total resistance tolerance	standard $\pm 20\%$ on request: $\pm 10\%$
Independent linearity	$\pm 0,075\%$   $\pm 0,1\%$
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   4,75W
Resistance temperature coefficient	$\pm 400$ ppm/ $^{\circ}\text{C}$
Insulation resistance	$> 1000$ MOhm at 500 VDC
Electrical connection	freely rotating connector
Case material	anodised aluminium with nylon and glas closing flanges
Shaft material	stainless steel on auto-lubricating alebox – free rotation
Sliding friction	0,1 kg - types with spring $> 0,5$ Kg
Max. strain on closing stranges	10 kg
Fixing	freely movable clamping feet
Life	20 Mio. motions, no load
Protection degree	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

## ■ Dimensions



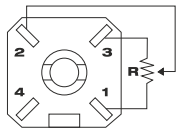
## ■ Available strokes

Nominal strokes (mm)	50	100	150	200	250	300	400	500	750	950
X	130	180	230	280	330	380	480	580	830	1030

**Electrical stroke** : nominal stroke  $\pm 1$  mm

**Mechanical stroke** : nominal stroke  $\pm 3$  mm

## ■ Connection Diagram



Pin 1: resistance 0 Ohm with stem in

## ■ Ordering Information

Example

Model	Stroke in mm	Resistance in Ohm	Resistance Tolerance	Fittings
FDPLS	50	5K	$\pm 20$ %	MR

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.

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