



## FDPM Linear Motion Potentiometer

- **Excellent Linearity**
- **Stroke 25 to 150 mm**
- **Infinite Resolution**
- **Small size**
- **Easy fixing method**



Linear motion potentiometers series FDPM 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. Thanks to their small size, they can be profitably employed for those applications where limited dimensions are a critical factor.

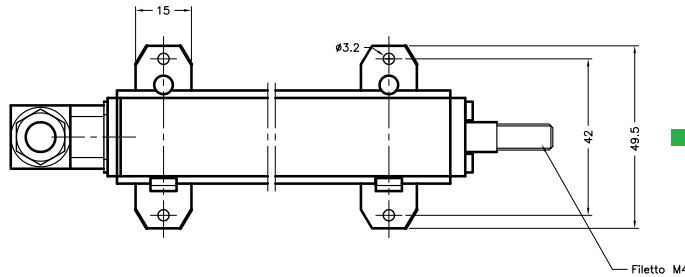
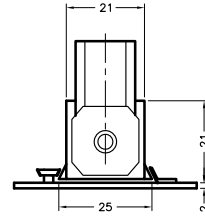
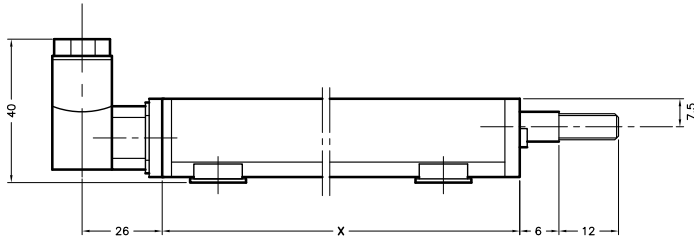
### More Features:

- 20 Mio. operations life
- Conductive plastic resistance element
- Moving speed up to 1 m/s
- Shaft diameter 5 mm
- Stout aluminium case
- Easy clamping by movable feet
- Electrical connections by orientable connector
- IP63 protection
- Available fittings: return spring, ball joint, out-of-alignment joint, feeler pin

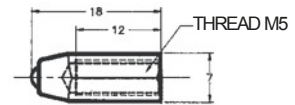
### Specifications

Strokes	25 mm	50 mm	75 mm	100 mm	150 mm
Resistive element	conductive plastic				
Resistive value	standard: 1 kOhm optional: 5 kOhm	5 kOhm			
Total resistance tolerance	±20 %				
Independent linearity	± 0,2%	± 0,15%	± 0,1%	± 0,075%	± 0,075%
Resolution	infinite				
Output smoothness	<0,1 % against input voltage				
Contact resistance variation	<2 % C.R.V.				
Power rating	0,4 W	0,7 W	0,95	1,2	1,8
Resistance temperature coefficient	±400 ppm/°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				
Max. strain on closing stranges	10 kg				
Fixing	freely movable clamping feet				
Life	20 Mio. motions, no load				
Protection degree	IP63				
Operating temperature	-10...+65°C				
Stem max. linear speed	1 m/s				
Vibration (10...2000 Hz)	15 g				
Shock (11 ms)	50 g				

## ■ Dimensions



## ■ Optional Fittings

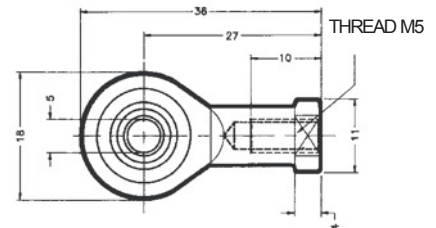


FEELER PIN PS  
INSIDE RETURN SPRING MR  
available for strokes up to 100 mm

## ■ Available strokes

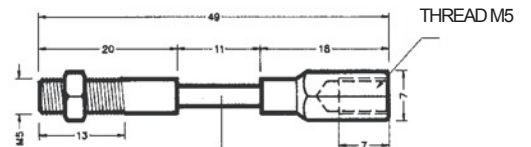
Nominal strokes (mm)	25	50	75	100	150
X	74	99	124	149	199

**Electrical stroke** : nominal stroke  $\pm 0.5$  mm  
**Mechanical stroke** : nominal stroke + 2 mm



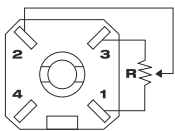
BALLJOINT SF

OUT-OF-ALIGNMENT JOINT



MIS-ALIGNMENT SPRING  
MAX MIS - ALIGNMENT 3MM

## ■ Connection Diagram



Pin 1: resistance 0 Ohm with stem in

## ■ Ordering Information

Example

Model	Stroke in mm	Resistance in Ohm	Fittings
PM	50	5K	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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