

Conductive Plastic Linear Sensor

# LP-FJ Series

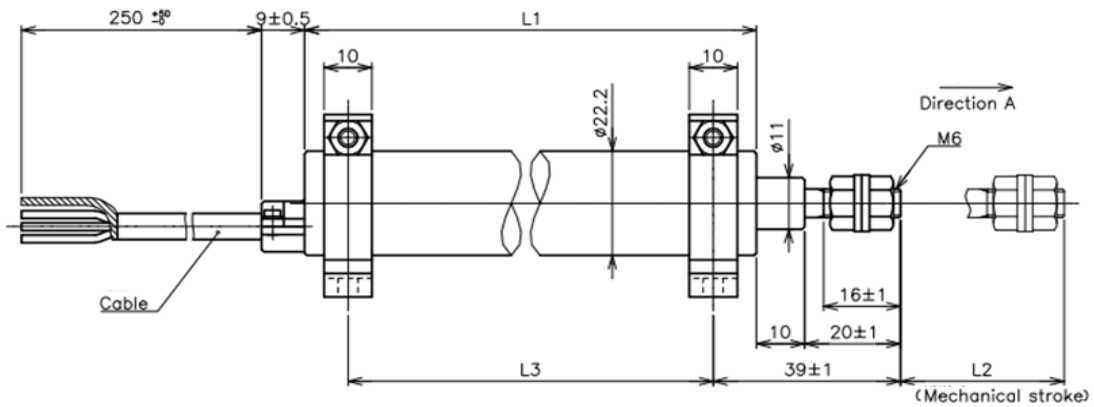


- Conductive Plastic Linear Sensor
- Effective Electrical Travel
  - : 50mm ± 0.5mm (LP-50FJ / LP-50FJS)
  - : 100mm ± 0.5mm (LP-100FJ / LP-100FJS)
  - : 150mm ± 0.5mm (LP-150FJ / LP-150FJS)
  - : 200mm ± 1mm (LP-200FJ / LP-200FJS)
  - : 250mm ± 1mm (LP-250FJ / LP-250FJS)
  - : 300mm ± 1mm (LP-300FJ / LP-300FJS)
- Independent Linearity : ±0.3% (Special Linearity ± 0.1%)
- Dust and Drip Proof (IP65) : LP-xxFJS

[Material]

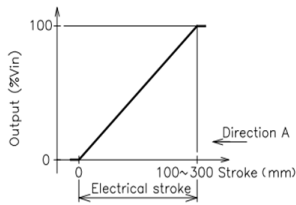
- Housing : Aluminum
- Shaft : Stainless Steel
- Bearing : Copper Alloy

## Dimension (mm)

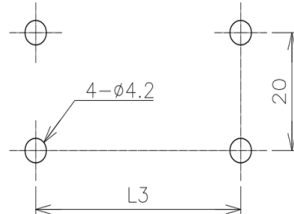


[Model No.]	LP-50FJ LP-50FJS	LP-100FJ LP-100FJS	LP-150FJ LP-150FJS	LP-200FJ LP-200FJS	LP-250FJ LP-250FJS	LP-300FJ LP-300FJS
Housing Length (L1)	88mm ±1mm	138mm ±1mm	188mm ±1mm	238mm ±1mm	288mm ±1mm	338mm ±1mm
Mech. Stroke (L2)	54mm ±1mm	104mm ±1mm	154mm ±1mm	204mm ±1mm	254mm ±1mm	304mm ±1mm
MTG Holes Pitch (L3)	70mm ±1mm	120mm ±1mm	170mm ±1mm	220mm ±1mm	270mm ±1mm	320mm ±1mm

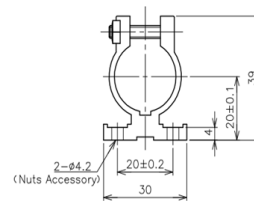
## Output Characteristics



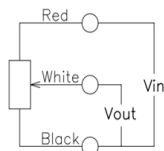
## Mounting Holes



## Mounting Foot



## Schematic



• Red, White, Black indicate lead colors.

Model No.	50FJ	50FJS	100FJ	100FJS	150FJ	150FJS	200FJ	200FJS	250FJ	250FJS	300FJ	300FJS
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#### Electrical Specifications

Effective Electrical Travel	50mm±0.5mm	100mm±0.5mm	150mm±0.5mm	200mm±1mm	250mm±1mm	300mm±1mm						
Total Resistance	1K, 5K Ω								5K Ω	10K Ω		
Total Resistance Tolerance	± 20 %											
Independent Linearity	±0.5%	±0.3% (Special Linearity ±0.1%)										
Input Voltage	DC36V MAX. / 50°C											
Output Smoothness	MAX. 0.1%											
Insulation Resistance	MIN. 100MΩ/DC 500V											
Dielectric Strength	AC500 V/ 1 Minute											
TC of Resistance	±400 ppm/K											

#### Mechanical Specifications

Friction	MAX.1N	MAX. 4N	MAX.1N	MAX. 4N	MAX.1N	MAX. 4N	MAX.1N	MAX. 4N	MAX.1N	MAX. 4N	MAX.1N	MAX. 4N
Mass	Approx. 120 g		Approx. 160 g		Approx. 200 g		Approx. 240 g		Approx. 280 g		Approx. 320 g	

#### Environmental Specifications

Life Cycles	MAX. 5 Million Cycles											
Category Temp. Range	-25°C ~ +80°C											
Storage Temp. Range	-25°C ~ +80°C											
Vibration	100m/S <sup>2</sup> 20~500Hz 3 axis 2 hours each											
Shock	500m/S <sup>2</sup> 11ms 6 directions 3 times											
IP Level	IP40	IP65*	IP40	IP65*	IP40	IP65*	IP40	IP65*	IP40	IP65*	IP40	IP65*
* Except Harness End												

#### ■ Accessories

Mounting Foot: M4 Nut 4 pieces each  
 Shaft Joint: M6 Nut, Plain washer 2pieces each

#### ■ Handling Instruction

- To avoid burnout of resistive element, do not supply more than 1mA current to terminal white.
- Miswiring might cause burnout of resistive element.
- To reduce sliding noise, add load resistance should be more than 100times and less than 1000times of total resistance.
- Slight continuous vibration such as dither might cause short lifetime of the sensor.