

Conductive Plastic Linear Sensor

MIDORI LP-FJ Series



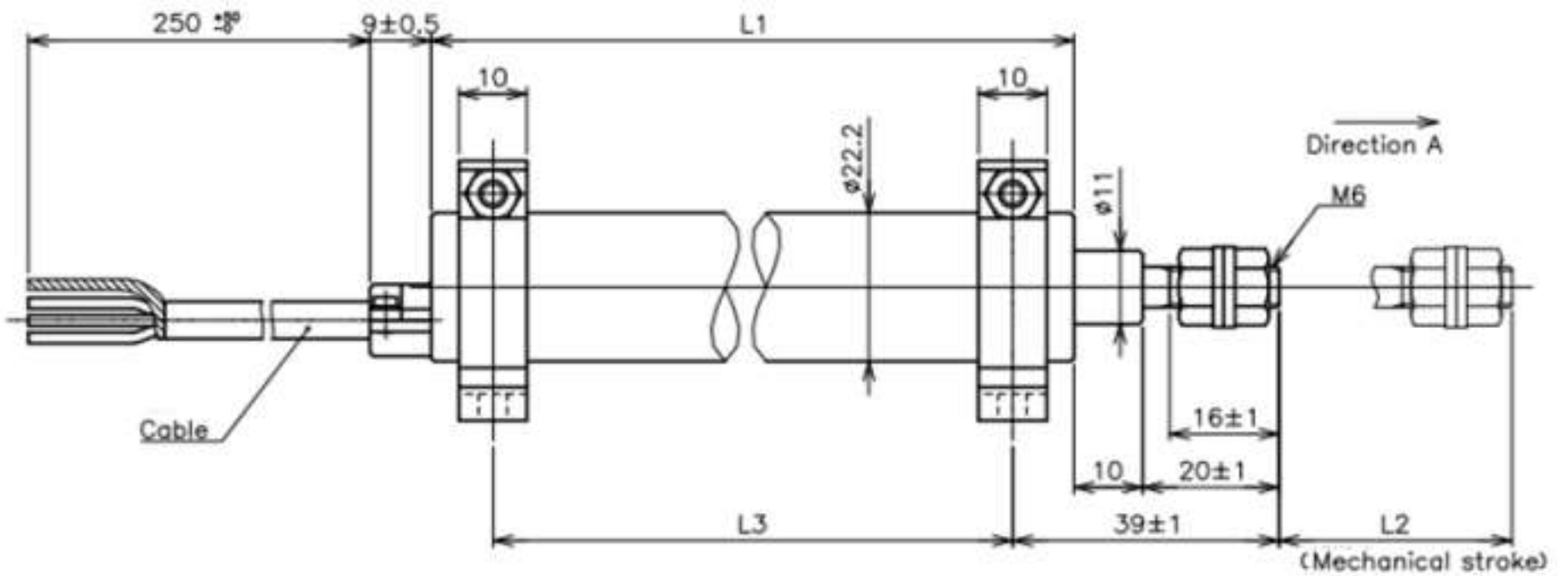
General

- Conductive Plastic Linear Sensor
- Effective Electrical Travel: 50mm ~ 300mm
- Independent Linearity: $\pm 0.3\%$ / $\pm 0.1\%$

Material

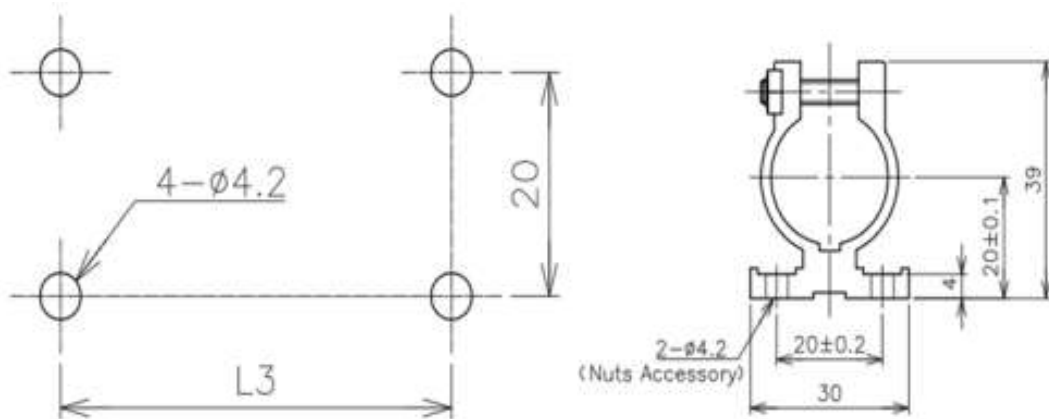
- Housing: Aluminum
- Shaft: Stainless Steel
- Bearing: Copper Alloy

Dimension (mm)

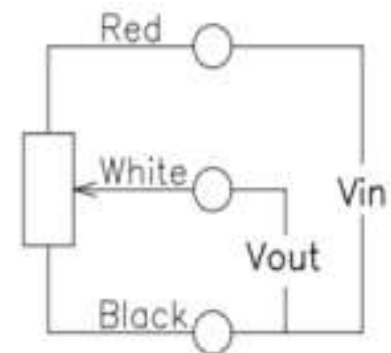


[Model No.]	LP-50FJ LP-50FJS	LP-100FJ LP-100FJS	LP-150FJ LP-150FJS	LP-200FJ LP-200FJS	LP-250FJ LP-250FJS	LP-300FJ LP-300FJS
Housing Length (L1)	88mm ±1mm	138mm ±1mm	188mm ±1mm	238mm ±1mm	288mm ±1mm	338mm ±1mm
Mech. Stroke (L2)	54mm ±1mm	104mm ±1mm	154mm ±1mm	204mm ±1mm	254mm ±1mm	304mm ±1mm
MTG Holes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

Mounting(mm)

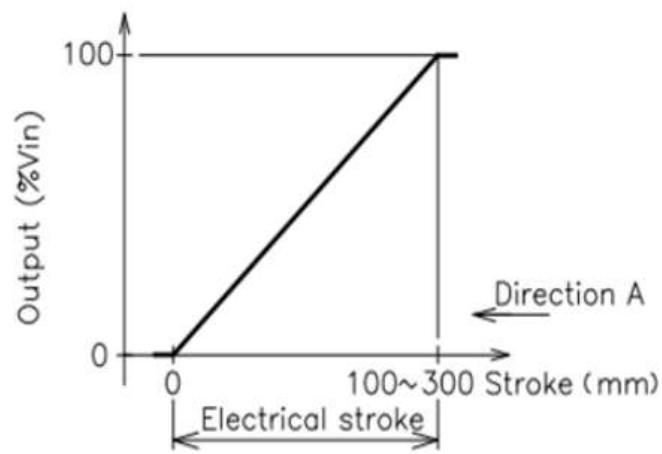


Schematic



• Red, White, Black indicate lead colors.

Output Characteristics



Specifications

Electrical Specifications

	LP-50FJ	LP-100FJ	LP-150FJ	LP-200FJ	LP-250FJ	LP-300FJ
Effective Electrical Travel	50mm ± 0.5mm	100mm ± 0.5mm	150mm ± 0.5mm	200mm ± 1mm	250mm ± 1mm	300mm ± 1mm
Total Resistance	1K, 5K Ω			5KΩ		10KΩ
Total Resistance Tolerance	±20%					
Input Voltage	DC36V MAX./ 50°C					
Independent Linearity	±0.5%	±0.3% (Special Linearity ±0.1%)				
Output Smoothness	0.1% MAX.					
Insulation Resistance	100MΩMIN./DC500V					
Dielectric Strength	AC500V/ 1Minute					
TC of Resistance	±400ppm/K					

Mechanical Specifications

Total Mechanical Travel	54mm ± 1mm	104mm ± 1mm	154mm ± 1mm	204mm ± 1mm	254mm ± 1mm	304mm ± 1mm
Friction	MAX.1N	MAX.1N	MAX.1N	MAX.1N	MAX.1N	MAX.1N
Weight	Approx.120g	Approx.160g	Approx.200g	Approx.240g	Approx.280g	Approx.320g

Environmental Specifications

Life Cycles	5 Million cycles MIN.
Category Temp. Range	-25~+80°C
Storage Temp. Range	-25~+80°C
Vibration	100m/S ² 20~500Hz 3axis 2hours each
Shock	500m/S ² 11ms 6directions 3times
IP Level	IP40

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 2.
- 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.