

Conductive Plastic Linear Sensor

MIDORI LP-FP Series



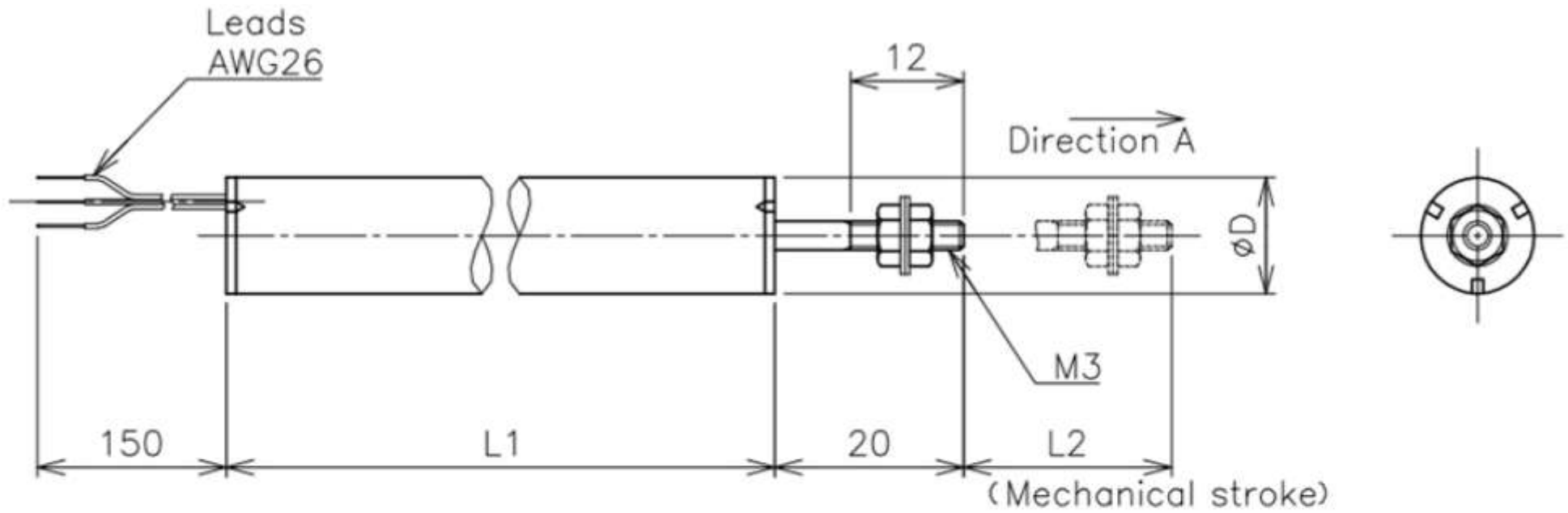
General

- Conductive Plastic Linear Sensor
- Effective Electrical Travel: 20mm (LP-20FP)
: 30mm (LP-30FP)
: 50mm (LP-50FP)
- Independent Linearity: $\pm 1\%$
- Compact Size: $\Phi 12\text{mm}$

Material

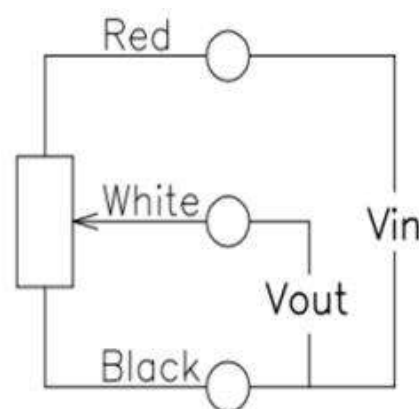
- Housing: Aluminum
- Shaft: Stainless Steel
- Bearing: Copper Alloy

Dimension (mm)



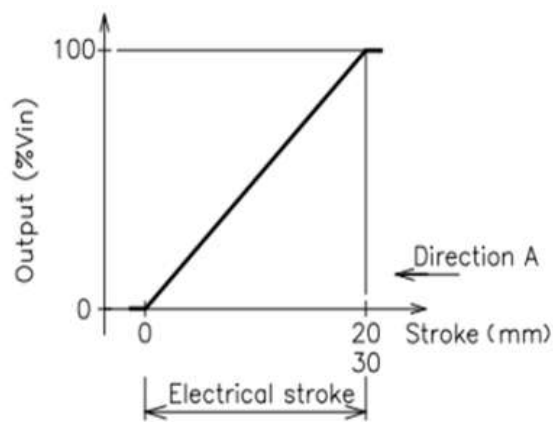
[Model No.]	LP-20FP	LP-30FP	LP-50FP
Housing Length (L1)	48 mm	58 mm	78 mm
ΦD	$\Phi 12 \text{ mm}$		
Mech. Stroke (L2)	22 mm \pm 1 mm	32mm \pm 1 mm	52mm \pm 1 mm

Schematic



- Red, White, Black indicate lead colors.

Output Characteristics



Specifications

	LP-20FP	LP-30FP	LP-50FP
Electrical Specifications			
Effective Electrical Travel	20mm ± 0.5mm	30mm ± 0.5mm	50mm ± 0.5mm
Total Resistance		1K Ω	
Total Resistance Tolerance		±20%	
Independent Linearity		±1%	
Rated Dissipation	0.6W/70°C	0.9W/70°C	1.5W/70°C
Output Smoothness		0.1% MAX.	
Insulation Resistance		100MΩMIN./DC500V	
Dielectric Strength		AC500V/ 1Minute	
TC of Resistance		±1000ppm/K	
Mechanical Specifications			
Friction		MAX. 0.4N	
Mass	Approx. 18g	Approx. 20g	Approx. 25g

Accessories

M3 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.
- Do not apply high temperature solder on the terminals.