

# SPACE SAVING, EASY TO INSTALL AND VIBRATION PROOF

## CONDUCTIVE PLASTIC LINEAR SENSOR

# LP-F-63 series

RoHS compliant



### FEATURES

- Conductive Plastic Linear Sensor
- Diameter 22mm slim profile
- Rod-end on both end no need to locate the center
- Ball joint installed vibration reduced
- Independent Linearity :  $\pm 0.3\%$

### OPTION

- Independent Linearity :  $\pm 0.1\%$
- With lead connector : Binder 09-0309-00-04  
(Model : LP-F-62)

### PART NUMBER DESIGNATION

LP - 100 F - 63

Effective Electrical Travel

100 : 100 mm  
150 : 150 mm  
200 : 200 mm  
250 : 250 mm  
300 : 300 mm

### STANDARD SPECIFICATIONS

#### Electrical characteristics

| Model No.                   | LP-100F-63                                   | LP-150F-63     | LP-200F-63     | LP-250F-63     | LP-300F-63            |
|-----------------------------|----------------------------------------------|----------------|----------------|----------------|-----------------------|
| Effective Electrical Travel | 100 $\pm$ 1 mm                               | 150 $\pm$ 1 mm | 200 $\pm$ 1 mm | 250 $\pm$ 1 mm | 300 $\pm$ 1 mm        |
| Total Resistance            | 1, 2, 5, 10 k $\Omega$                       |                |                |                | 2, 5, 10 k $\Omega$   |
| Total Resistance Tolerance  | $\pm 20\%$                                   |                |                |                |                       |
| Independent Linearity       | $\pm 0.3\%$ (Special Linearity $\pm 0.1\%$ ) |                |                |                |                       |
| Rated Dissipation           | 2 W / 70 $^{\circ}$ C                        |                |                |                | 4 W / 70 $^{\circ}$ C |
| Output Smoothness           | 0.1% max.                                    |                |                |                |                       |
| Insulation Resistance       | 100 M $\Omega$ min. / 500 VDC                |                |                |                |                       |
| Dielectric Strength         | 500 VAC / 1 Minute                           |                |                |                |                       |
| TC of Resistance            | $\pm 400$ ppm/K                              |                |                |                |                       |

#### Mechanical characteristics

|            |             |              |              |              |              |
|------------|-------------|--------------|--------------|--------------|--------------|
| Net weight | Approx.95 g | Approx.125 g | Approx.165 g | Approx.205 g | Approx.245 g |
| Friction   | 2 N max.    |              |              |              |              |

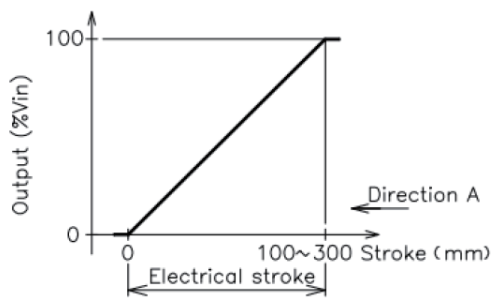
#### Environmental characteristics

|                      |                                               |
|----------------------|-----------------------------------------------|
| Life Cycles          | 5 Million Cycle                               |
| Operating Temp.Range | -25 ~ +80 $^{\circ}$ C                        |
| Storage Temp. Range  | -25 ~ +80 $^{\circ}$ C                        |
| Vibration            | 100 m/s $^2$ , 20 ~ 500Hz 3 axis 2 hours each |
| Shock                | 500 m/s $^2$                                  |
| IP Grade             | IP40                                          |

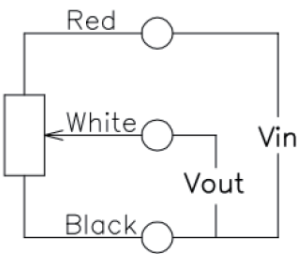
# LP-F-63

## POTENTIOMETERS

### OUTPUT CHARACTERISTICS



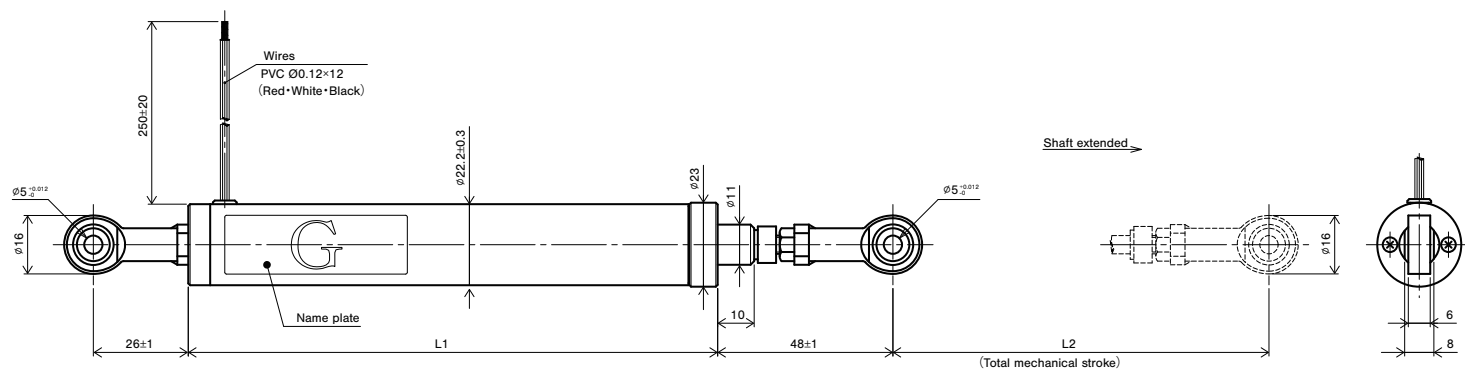
### SCHEMATIC



Red, White, Black indicate lead colors.

### OUTLINE DIMENSIONS

(Unit:mm)



| Model No.            | LP-100F-63 | LP-150F-63 | LP-200F-63 | LP-250F-63 | LP-300F-63 |
|----------------------|------------|------------|------------|------------|------------|
| Housing Length L1    | 145±1 mm   | 195±1 mm   | 245±1 mm   | 295±1 mm   | 345±1 mm   |
| Mechanical stroke L2 | 103±2 mm   | 153±2 mm   | 203±2 mm   | 253±2 mm   | 304±1 mm   |

### HANDLING INSTRUCTION

- To avoid burnout of resistive element, do not supply 1mA min. current to terminal 2.