

10740

REF. NO:

GENERAL DESCRIPTION:

LP-XXFP IS A CONDUCTIVE PLASTIC RESISTIVE ELEMENT LINEAR MOTION POTENTIOMETER DESIGNED FOR HIGH PERFORMANCE AND RELIABILITY IN ITS COMPACT LIGHT WEIGHT PACKAGE. ELECTRICAL CONNECTIONS ARE MADE WITH PIGTAILED, 150mm LONG INSULATED LEADS.

ELECTRICAL SPECIFICATIONS:

ELECTRICAL TRAVEL:	SEE TABLE 1												
TOTAL RESISTANCE:	<table border="0"> <tr> <td>ⓑ) LP-10FP</td> <td>0.5, or 1kOHMS±20%</td> </tr> <tr> <td>LP-20FP</td> <td>0.5, 1, 2, or 5 kOHMS ±20%</td> </tr> <tr> <td>LP-30FP</td> <td>0.5, 1, 2, or 5 kOHMS ±20%</td> </tr> <tr> <td>LP-50FP</td> <td>1, 2, 5, or 10 kOHMS ±20%</td> </tr> <tr> <td>ⓑ) LP-75FP</td> <td>1, 2, 5, or 10 kOHMS ±20%</td> </tr> <tr> <td>LP-100FP</td> <td>2, 5, 10, or 20 kOHMS ±20%</td> </tr> </table>	ⓑ) LP-10FP	0.5, or 1kOHMS±20%	LP-20FP	0.5, 1, 2, or 5 kOHMS ±20%	LP-30FP	0.5, 1, 2, or 5 kOHMS ±20%	LP-50FP	1, 2, 5, or 10 kOHMS ±20%	ⓑ) LP-75FP	1, 2, 5, or 10 kOHMS ±20%	LP-100FP	2, 5, 10, or 20 kOHMS ±20%
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ⓑ) LP-75FP	1, 2, 5, or 10 kOHMS ±20%												
LP-100FP	2, 5, 10, or 20 kOHMS ±20%												
LINEARITY, INDEPENDENT:	±1%												
OUTPUT SMOOTHNESS:	0.1% MAX.												
POWER RATING :	SEE TABLE 1												
TEMPERATURE COEFFICIENT:	±400 ppm MAX.												
INSULATION RESISTANCE:	100 meg OHMS @ 500Vdc												
DIELECTRIC STRENGTH:	500 Vrms @ 50/60 Hz.												

MECHANICAL SPECIFICATIONS:

MECHANICAL STROKE:	SEE TABLE 1
FRICTION:	40 g MAX
WEIGHT:	SEE TABLE 1

ENVIRONMENTAL SPECIFICATIONS:

OPERATING TEMPERATURE:	-25°C to +80°C
VIBRATION:	15 G's THROUGH 1,000 Hz
SHOCK:	50 G's
LIFE EXPECTANCY:	10 MILLION OPERATIONS MIN.

MARKING:

UNITS SHALL BE MARKED WITH MODEL NUMBER, RESISTANCE VALUE, AND SERIAL NUMBER (OR DATE CODE).

MATERIALS:

HOUSING:	NICKEL PLATED BRASS
SHAFT:	STAINLESS STEEL
SIDE PLATES:	THERMOSET PLASTIC, GLASS ENFORCED
INSULATED WIRES:	#26AWG, PVC INSULATION SLEEVE (UL1061)

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN mm (in).
TOLERANCES:
ANGLES: ±1.5°
<10 mm: ±0.25
<100 mm: ±0.5
>100 mm: ±1

REVISION

C.O.N	SYM	DESCRIPTION	DATE	DRAWN	APPR'D
	A	0.2 kOHMS deleted from LP-20 & 30FP. 0.5 kOHMS deleted from LP-50FP.	5/29/91	TSUGAWA	
	B	1) MODELS LP-10FP AND LP-75FP ADDED.	11/19/99	TSUGAWA	

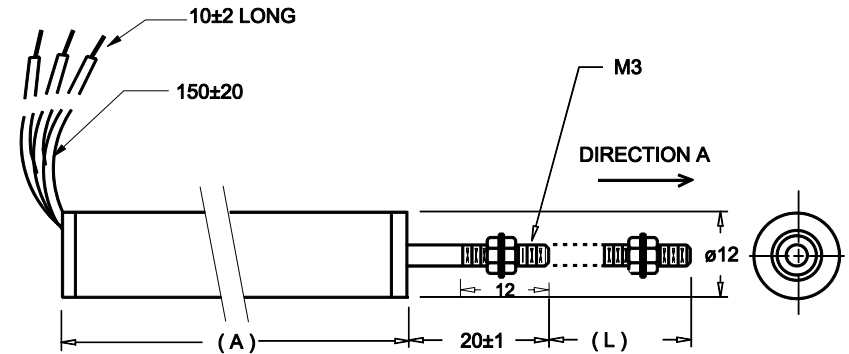


FIGURE 1 OUTLINE DIMENSION

TABLE 1

MODEL NO.	POWER RATING	ELECT STROKE	BODY LENG. (A)	MECH. STROKE (L)	NOMINAL WEIGHT
LP-10FP: ⓑ)	0.3W @70°C	10 mm	38 ±1 mm	12 ±1 mm	10 gm
LP-20FP:	0.6W @70°C	20 mm	48 ±1 mm	22 ±1 mm	20 gm
LP-30FP:	0.9W @70°C	30 mm	58 ±1 mm	32 ±1 mm	30 gm
LP-50FP:	1.5W @70°C	50 mm	78 ±1 mm	52 ±1 mm	40 gm
LP-75FP: ⓑ)	1.7W @70°C	75 mm	103 ±1 mm	77 ±1 mm	45 gm
LP-100FP:	2.0W @70°C	100 mm	128 ±1 mm	102 ±1 mm	50 gm

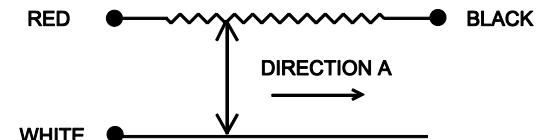


FIGURE 2 SCHEMATIC

DRAWN T. TSUGAWA	DATE 10/24/90	SPECIFICATION DWG FOR MODEL LP-xxFP LINEAR POTENTIOMETER	Midori America Corporation FULLERTON, CA	A-MAC-B03	B
CHECKED Y. NAKAMURA	DATE 7/15/91				
APPROVED I. SOMA	DATE 7/15/91				
APPROVED	DATE				
SCALE:	FILE: LP-xxFP	1 OF 1			

<RoHS Compliance>

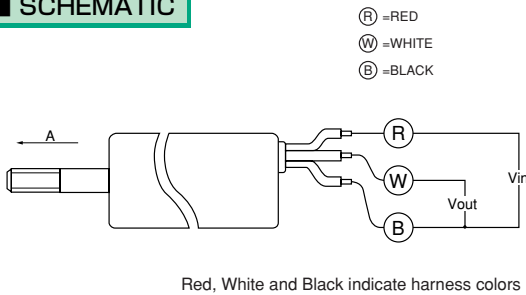
LP-FP series

LP-30FQJ

FEATURES

- Compact & Light weight
- ϕ 12mm housing: LP-FP series
- ϕ 8mm housing: LP-30FQJ

SCHEMATIC



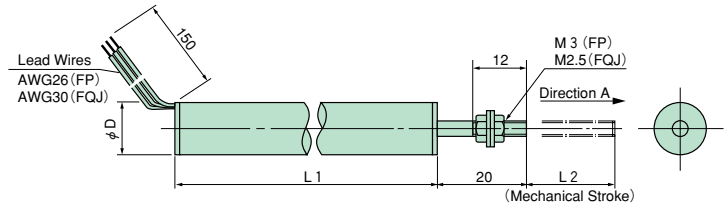
Electrical Specifications

Model No.	LP-20FP	LP-30FP	LP-50FP	LP-30FQJ
Electrical Stroke	20mm \pm 0.5mm	30mm \pm 0.5mm	50mm \pm 0.5mm	30mm \pm 0.5mm
Total Resistance	1k Ω			1k Ω
Total Resistance Tolerance	\pm 20%			
Independent Linearity	\pm 1%			
Power Rating	0.6W/70 $^{\circ}$ C	0.9W/70 $^{\circ}$ C	1.5W/70 $^{\circ}$ C	0.9W/70 $^{\circ}$ C
Output Smoothness	0.1%MAX.			
Insulation Resistance	100M Ω MIN. DC 500V			
Dielectric Strength	AC500V 1 Minute			
TC of Resistance	\pm 1000ppm / $^{\circ}$ C			\pm 400ppm / $^{\circ}$ C

Mechanical Specifications

Friction	0.4N MAX.			0.3N MAX.
Weight	Approx. 18g	Approx. 20g	Approx. 25g	Approx. 15g

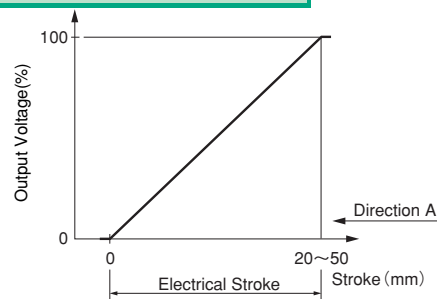
DIMENSION (mm)



Housing Length

Model No.	LP-20FP	LP-30FP	LP-50FP	LP-30FQJ
Housing	48mm	58mm	78mm	63mm
Length(L1)	ϕ 12mm			ϕ 8mm
Mech. Stroke(L2)	22 \pm 1mm	32 \pm 1mm	52 \pm 1mm	35 \pm 1mm

OUTPUT CHARACTERISTICS



MOUNTING HARDWARE

2-M3 Nuts, 2-Washers