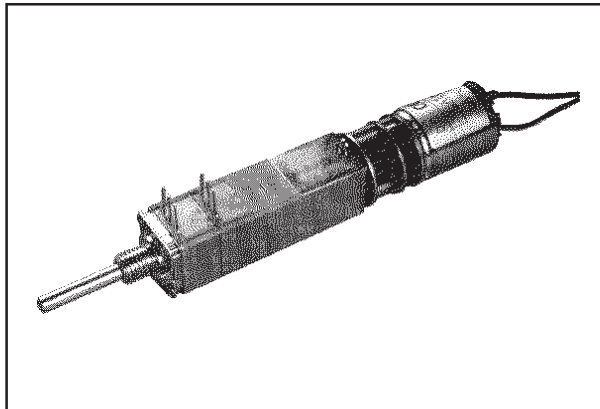


388MPLC/389MPLC MOTORIZED POTENTIOMETER



Description

The series MPLC Motorized Potentiometer is an assembly of the 388 or 389 potentiometer (as many as four ganged units) and a geared motor, coupled by a slip clutch for limited mechanical rotation and manual adjustment of the potentiometer.

Features

- Small size
- Remote operation
- Slip clutch for manual operation
- Memory reset applications
- 1/2" square potentiometer
- Gear Motor: 0.63" Diameter

Series 388MPLC Specifications

<i>Number of sections</i>	Up to four modules*
<i>Resistance Range</i>	Linear: 100Ω to 5Megohms Tapered: 500Ω to 2 Megohms
<i>Resistance Tolerance</i>	Linear: ±10% thru 500KΩ ±20% above 500KΩ Tapered: ±10% thru 100KΩ ±20% above 100KΩ
<i>Independent Linearity</i>	±5% standard Specials – consult factory
<i>Dynamic Noise (C.R.V.)</i>	1.5% of total R, standard linear 1.0% of total R, special linear 2.2% of total R, tapered
<i>Static Noise</i>	20dB up to 30KΩ 12dB up to 100KΩ 3 dB up to 1 Megohm
<i>Power Rating**</i>	0.5 watt at 70°C bushing mounted 0.25 watt at 70°C PC mounting derate to zero watts at 120°C [Derate 50% for non-linear tapers and derate multiple sections at half the wattage of the panel unit.]
<i>Effective Rotation</i>	265 ± 5 degrees
<i>Mechanical Rotation</i>	295 ± 5 degrees
<i>Stop Torque</i>	4 in-lb (0.45 Nm) maximum
<i>Bushing:</i>	<i>Standard:</i> 1/4 in (6.35mm) x 1/4-32 NEF <i>Special:</i> 3/8 in. (9.53mm) x 3/8-32 NEF <i>Lengths:</i> Various available - call factory
<i>Shaft:</i>	<i>Standard:</i> 1/8 in (3.18mm) x 3/4 in. (19.05mm) FMS Slotted <i>Length:</i> Various available; contact State Electronics

Series 389MPLC Specifications

<i>Number of sections</i>	Up to four modules*
<i>Resistance Range</i>	Linear: 100Ω to 5Megohms Tapered: 100Ω to 2Megohms
<i>Resistance Tolerance</i>	Linear: ±10% standard ±5 special Tapered: ±10% standard ±20% under 20Ω
<i>Independent Linearity</i>	±5% standard Specials – consult factory
<i>Dynamic Noise (C.R.V.)</i>	3% of total R, standard linear 1.5% of total R, special linear (500Ω and above) 6.0% of total R, tapered
<i>Static Noise</i>	25dB up to 100Ω 15dB up to 10KΩ 10dB up to 100KΩ
<i>Power Rating**</i>	1.0 watt at 85°C bushing mounted 0.5 watt at 85°C PC mounting derate to zero watts at 150°C [Derate 50% for non-linear tapers and derate multiple sections at half the wattage of the panel unit.]
<i>Effective Rotation</i>	250 +10/-5 degrees
<i>Mechanical Rotation</i>	295 ±5 degrees
<i>Stop Torque</i>	4 in-lb (0.45 Nm) maximum
<i>Bushing:</i>	1/4 in (6.35mm) x 1/4-32 NEF 3/8 in. (9.53mm) x 3/8-32 NEF Various available - call factory
<i>Shaft:</i>	1/8 in (3.18mm) x 3/4 in. (19.05mm) FMS Slotted Various available; contact State Electronics

* Only two gang units are available from stock.

** Motorpot operating temperature is determined by temperature range of gear motor.

NOTE: See full line catalog for more detailed specifications of the 388/389 Series.

MOTOR / POTENTIOMETER PERFORMANCE

Parameter	MPLC	Units	Conditions
Gear Ratio	120.4	—	—
Allowed Sections	2 to 3	—	Note 1
Direction	CW	—	Note 2
No-Load Current	28	mA	Gear Motor only
Torque Constant	0.072	oz-in/mA	Gear Motor only
Speed Constant	4.0	RPM/mA	Gear Motor only
Stall Torque	18	oz-in	Gear Motor only, 12V, 0 RPM
Stall Current	250	ma	12V, 0 RPM
Voltage	12	volts	—
Weight	0.86	ounces	Gear Motor only
Operating Temperature	-30°C to 65°C	—	—
Life	500	hours	—

NOTES:

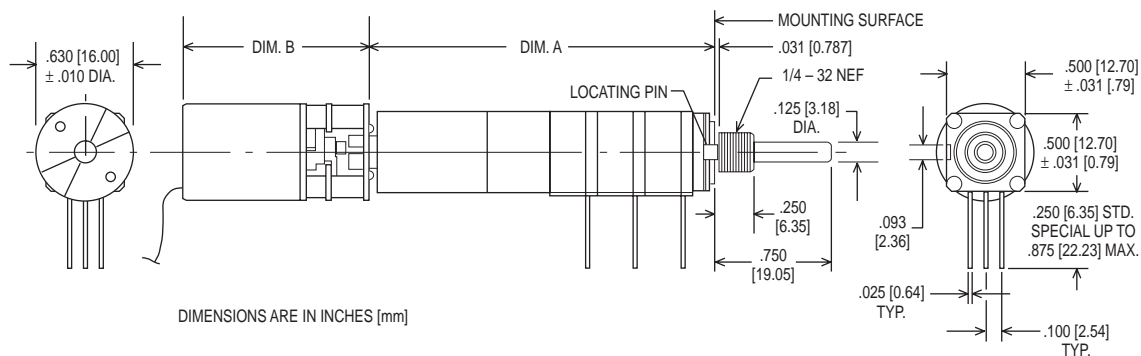
1. Potentiometer operating torque specified as follows:

Number of Pot Sections	Torque (oz-in)
2	0.3 to 3.5
3	0.5 to 4.5
4	0.5 to 5.5

2. Viewed from pot shaft end when motor (+) terminal connected to positive terminal of 12 volt supply.

3. All motor/potentiometer performance specifications are nominal values.

Motorized Potentiometer MPLC



DIMENSION CHART

GEAR MOTOR			POT GANG Dimension "A"		
Motor ID	Reduction	Dimension "B"	2 Gang*	3 Gang*	4 Gang*
GM20	20.6:1	1.429"	1.244"	—	—
GM46	46.4:1	1.512"	1.244"	1.544"	—
GM104	104.4:1	1.594"	1.244"	1.544"	1.844"
LCGM120	120.4:1	1.268"	1.787"	2.087"	—

* Only 2 gang units are available from stock.

