

# Data Sheet for Precision Potentiometer

## Conductive Plastic Hollow Shaft Potentiometer

## Series MHP24



- Space saving flat housing (ø24 x 7.1mm)
- Simple mounting on flatted hollow shaft hub and anti rotation pin
- Conductive plastic and high-quality multi finger wiper (precious metals) gives a reliable signal output

The conductive plastic hollow shaft potentiometer MHP24 allows based on the flatted hub and the anti rotation pin an easy and exact zero point alignment.

The flat construction allows the implementation under constricted rooms.

### Electrical Data

Effective electrical angle of rotation 1.)	340° ±3°
Total resistance 1.)	1 kOhm
Resistance tolerance	±20%
Independent linearity (best straight line) 1.)	±2%
Theoretical resolution 1.)	Nearly infinite
Backlash (Hysteresis) 1.)	≤ 0,5°
Max. / recommended wiper current 1.)	10 µA / 1 µA
Power rating @ 70°C (0W @ 105°C)	1 W
Insulation Voltage 1.)	500 VAC, 1min
Insulation Resistance 1.)	500 MOhm @ 500 VDC

### Mechanical Data, Environmental Conditions, Miscellaneous

Mechanical angle of rotation	360° without stop
Lifetime (90% el. eff. angle half sine) 2.)	2 Mio. rotations
Max. operational speed	90 rev. / min.
Bearing	Sleeve bearing
Operational torque @ ambient temperature 1.) 2.)	5 Nmm
Operating temperature range	-40..+105°C
Storage temperature range	-40..+105°C
Protection grade (IEC 60529)	IP40
Housing diameter	24 mm
Housing depth	7,1 mm
Shaft diameter	6 mm
Shaft type	Hollow shaft
Connection type	Gold plated solder pad
Connection position	Radial
Sensor mounting	Anti rotation pin
Mass	5 g
Material hollow shaft hub	Plastic
Material housing	Plastic

1.) According IEC 60393

2.) Determined by climatic conditions according to IEC 68-1, para. 5.3.1 without load collectives

Please note: Max. permissible supply voltage <75 VDC respectively <50 VAC in addition the max. power rating must be observed

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## Order code

<b>Description</b>	Selection: standard=black/bold, possible options=grey/cursive			
<b>Series</b>	<b>MHP24</b>			
<b>Resistance value: 1 kOhm</b>		<b>R1k</b>		
<b>Resistance tolerance: ±20%</b>			<b>W20%</b>	
<b>Independent linearity: ±2%</b>				<b>L2%</b>

### For higher quantities or on-going demand, additional options are available as described below

For example:

- Other electrical rotation angles or resistance values
- Special tolerances of independent linearity
- Custom specific housings

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## Drawing

The wiper tip is on the center of the track when mark A is aligned with mark B. The output must be app. 50% of applied voltage

Fixation of the anti rotation pin has to be without any load

