

Data Sheet for Precision Potentiometer

Conductive Plastic Hollow Shaft Potentiometer

Series MHP24



- Space-saving flat housing ($\varnothing 24 \times 7.1\text{mm}$)
- Easy mounting on flat hollow shaft hub and anti-rotation pin
- Conductive plastic and high quality multi-finger wiper (precious metals) provide reliable signal output

The MHP24 conductive plastic hollow shaft potentiometer has a flat hub and anti-rotation pin for easy and accurate zero alignment. The flat design allows installation in confined spaces.

Electrical Data

Effective electrical angle of rotation 1.)	340° $\pm 3^\circ$
Total resistance 1.)	1, 5, 10 kOhm
Resistance tolerance	$\pm 20\%$ (10%)
Independent linearity (best straight line) 1.)	$\pm 2\%$ (1%)
Theoretical resolution 1.)	Nearly infinite
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 1.)	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 °C up to +105 °C
Storage temperature range	-40 °C up to +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	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

Description	Selection: standard=black/bold , possible <i>options=grey/italic</i>			
Series	MHP24			
Resistance value: 1 kOhm <i>5 kOhm</i> <i>10 kOhm</i>		R1k <i>R5K</i> <i>R10K</i>		
Resistance tolerance: ±20% <i>Option ±10%</i>			W20% <i>W10%</i>	
Independent linearity: ±2% <i>Option ±1%</i>				L2% <i>L1%</i>

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

