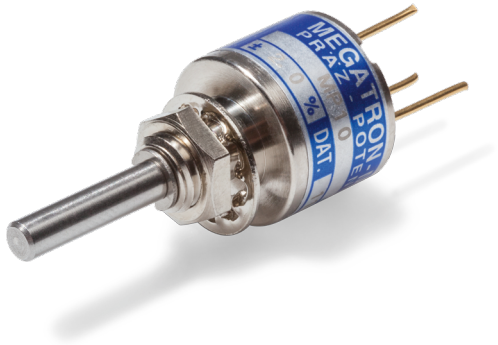


Data Sheet for Precision Potentiometer

Conductive Plastic Potentiometer

Series MP10/11



The MP10/11 potentiometers in 13 mm housing are for applications in which a miniaturized sensor with good lifespan characteristics is important.

- Miniature housing with Ø13 mm only
- Ideal for confined spaces
- With or without mechanical end stop (310° / 360°)
- Lifespan 5 Mio.
- Robust metal housing
- Optional rear shaft and center tap

The conductive plastic potentiometer MP10/11 (MP11 with mech. endstop) with only Ø13 mm miniature housing and bushing is ideal for confined spaces

Note: The versions MP11 with stop are also used as manual control

Electrical Data	MP10	MP11
Effective electrical angle of rotation 1.)		300° ±5°
Total resistance 1.)		0,5..100 kOhm
Resistance tolerance		±15% (±10%)
Independent linearity (best straight line) 1.)		±2% (±1%)
Theoretical resolution		Nearly infinite
Backlash (Hysteresis) 1.)		≤ 0,5°
Max. / recommended wiper current 1.)		1 mA / 2 µA
Power rating @ 70°C (0W @ 105°C)		0,2 W
Insulation Voltage 1.)		500 VAC, 1min
Insulation Resistance 1.)		1000 MOhm @ 500 VDC

Mechanical Data, Environmental Conditions, Miscellaneous	MP10	MP11
Mechanical angle of rotation	360° without stop	310° +10° with stop
Lifetime (90% el. eff. angle half sine) 2.)		5 Mio. rotations
Max. operational speed		400 rev. / min.
Bearing		Sleeve bearing
Operational torque @ ambient temperature 1.) 2.)		2 Nmm
End stop torque 1.) 2.)	-	30 Ncm
Operating temperature range		-55..+105°C
Storage temperature range		-55..+105°C
Protection grade (IEC 60529)		IP40
Vibration (IEC 68-2-6, Test Fc)		15g 10..2000Hz x 12h
Shock (IEC 68-2-27, Test Ea)		49g @ 11 ms x 18
Housing diameter		13 mm
Housing depth		10 mm
Shaft diameter		3 mm
Shaft type		Solid shaft

Data Sheet for Precision Potentiometer

Conductive Plastic Potentiometer

Series MP10/11

Mechanical Data, Environmental Conditions, Miscellaneous	MP10	MP11
Max. radial load		≤1 N
Max. axial load		≤1 N
Connection type	Gold plated soldering pins	
Connection position	Axial	
Sensor mounting	Bushing	
Mass	8 g	
Fastening parts included in delivery	Nut, toothed washer	
Fastening torque mounting nut	100 Ncm	
Material shaft	Stainless steel	
Material housing	Steel	

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

Order code								
Description	Selection: standard=black/bold, possible options=grey/cursive							
Series	MP							
Angle of rotation with / without mecha. stop:								
Without stop	10							
With stop	11							
Resistance value:								
<i>Option 500 Ohm</i>			<i>R500</i>					
1 kOhm			R1k					
<i>Option 2 kOhm</i>			<i>R2k</i>					
5 kOhm			R5k					
10 kOhm			R10k					
<i>Option 20 kOhm</i>			<i>R20K</i>					
<i>Option 50 kOhm</i>			<i>R50K</i>					
<i>Option 100 kOhm</i>			<i>R100K</i>					
<i>Option rear shaft:</i>								
<i>Standard Ø1,00 x 10 mm</i>					<i>RA</i>			
<i>Shaft length in mm</i>					<i>RAxx,xx</i>			
Resistance tolerance:								
±15%						W15%		
<i>Option: ±10%</i>						<i>W10%</i>		
Independent linearity:								
±2%							L2%	
<i>Option ±1%</i>							<i>L1%</i>	
Front shaft:								
Standard Ø3,00 x 20 mm								
<i>Option shaft length in mm</i>								
<i>Option shaft diameter in mm (≤3 mm)</i>								
<i>Option center tap:</i>								<i>CT</i>

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

For Example: Sealed housing case, special electrical and mechanical angles of rotation, and special resistance and linearity tolerances. Furthermore we can mount gear wheels or attach cable assemblies with or without connectors and much more.

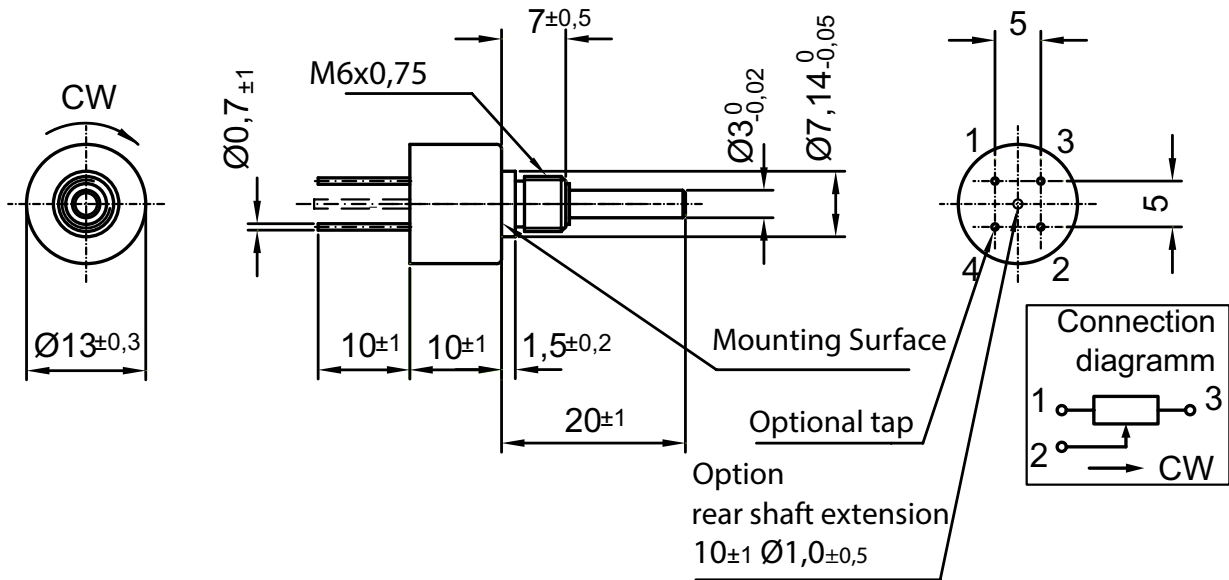
Data Sheet for Precision Potentiometer



Conductive Plastic Potentiometer

Series MP10/11

Drawing



Dimension in mm



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