



MCP22



MCP30

High Precision

All Metal

Very Long Life

- **50 Million Turns Life**
- **High Precision**
- **Dual Ball Bearing**
- **1K to 200K Resistance Values**

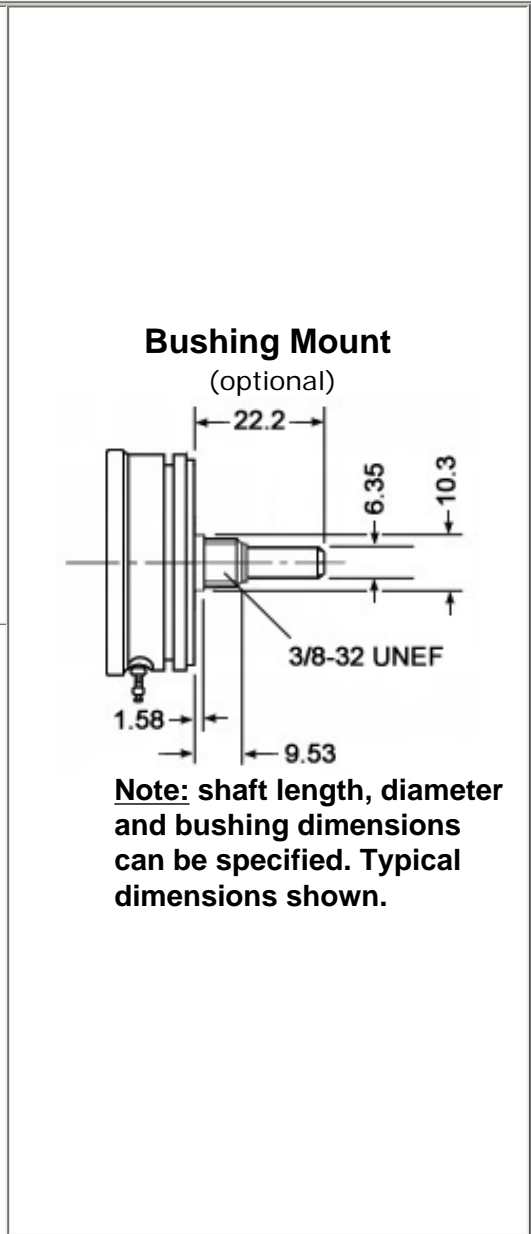
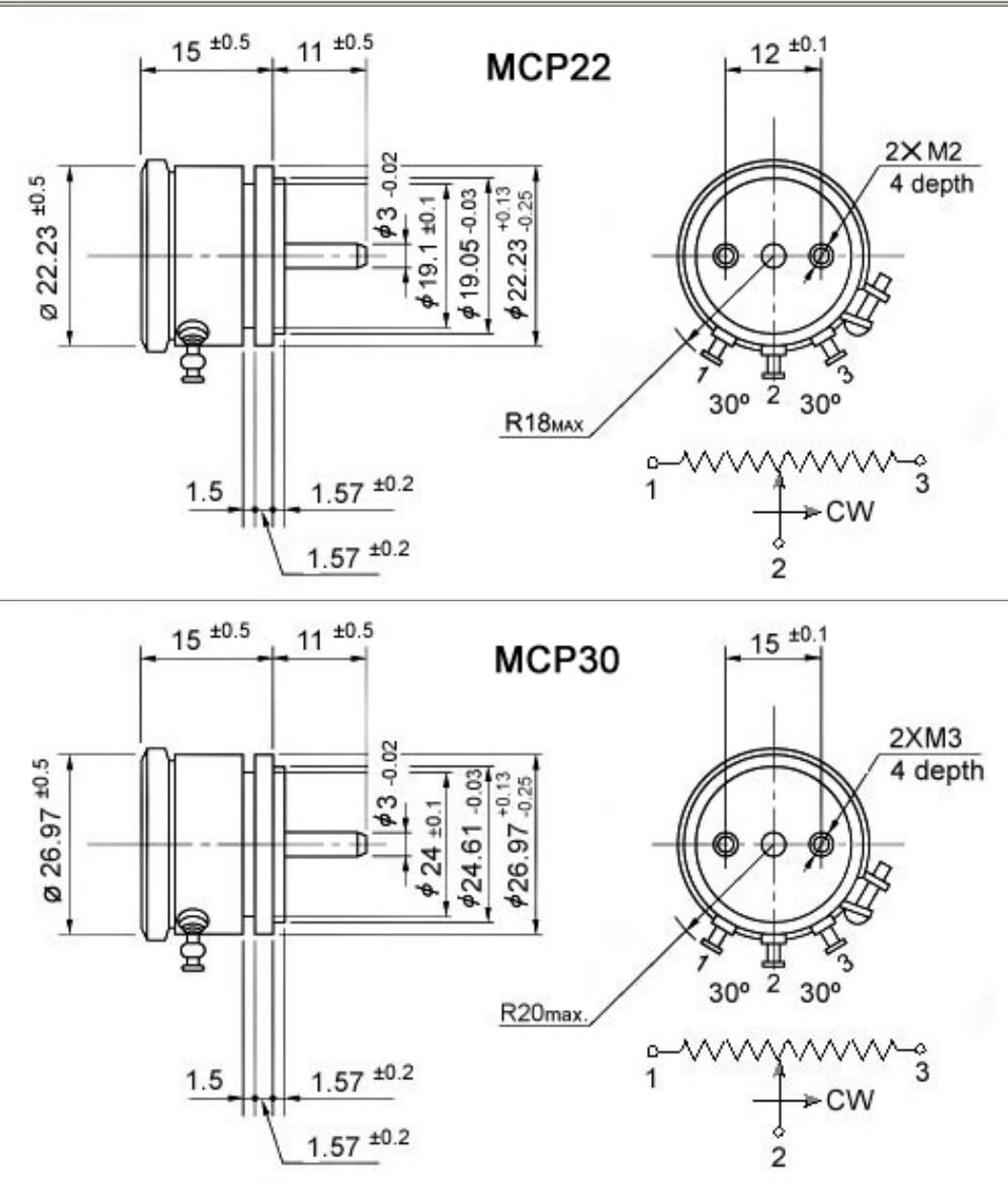
Very high precision and long life. All metal construction. Essentially infinite resolution. Ideal for high duty cycle position feedback applications where high precision and/or long life is required.

Electrical Specifications	MCP22	MCP30
Electrical Angle	320 ±5°	340 ±5°
Resistance Value (ohms)	1K...100K	1K...200K
Resistance Tolerance	±10% (5% opt.)	
Linearity Tolerance (std.)	±0.75%	±0.25%
Linearity Tolerance (best)	±0.2%	±0.1%
Resolution	Essentially infinite	
Wiper Current	1mA	
End Resistance	<0.1%	
Power @ 40° (W)	1.0	1.5
Insulation Resistance	>1000 Mohm @ 1000 VDC	
Dielectric Strength	1 minute @ 1000 VAC	
Output Smoothness	< 0.1% per MIL-R-39023	
Mechanical Specifications		
Mechanical Angle	360° (continuous)	
Maximum Operating Friction	< 1.5 mNm (15gf)	< 2 mNm (20gf)
Life Expectancy	50 million cycles	
Weight (g)	20	30
Max. Axial Play of Shaft	0.2 mm	
Max. Radial Play of Shaft	0.05 mm	
Vibration	15 g / 10Hz to 2,000 Hz	
Shock	50 g / 11ms	
Bearing	2 x precision ball bearings	
Environmental Specifications		
Operating Temperature	-55°C to +125°C	
IP Protection Grade	IP40 (IP54 opt.)	
Standard	per MIL-R-12934	

Materials

Housing	Anodized aluminum, black
Shaft	Stainless steel
Terminals	Gold plated (turret terminals)
Mounting Hardware	3 Servo Fixing Clamps (included) - Type SFN2

Standard Dimensions (mm)



Options

- b 6.35mm shaft diameter
- b Special operating angles
- b Extra tap (up to 3)
- b Special shaft machining
- b Multiple gangs (up to 7)
- b Rear shaft (6mm x 15mm)
- b Special resistance values
- b Bushing mount
- b Higher IP ratings

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