



High Precision Range

Bushing Mount

Economical

- **7/8" (22mm) Diameter**
- **1 Million Turns Life**
- **High Resolution**
- **100 to 20K ohms Resistance Values**

Industry standard 22mm (7/8") body diameter with side terminals. Long life, high precision with a wide range of options available. Available with or without mechanical end stops.

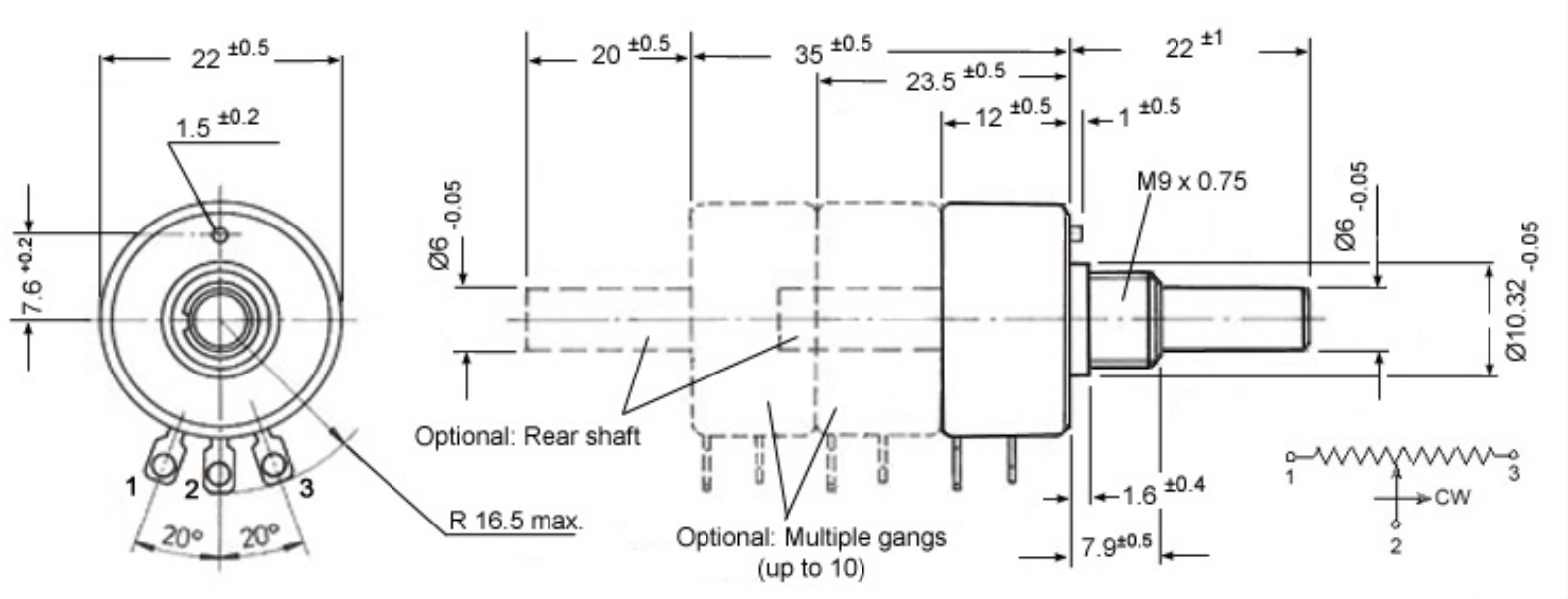
Electrical Specifications	RP19	RP20
Electrical Angle	320 ±5°	355 +3,-5°
Resistance Value (S)	100 ~ 20k	
Resistance Tolerance	±3% (±2% opt.)	
Linearity Tolerance (std.)	±0.5%	
Linearity Tolerance (best)	±0.25% > 2k ohm	
End Resistance	<1k: 0.2% >=1k: 0.1%	
Wiper Current	30 mA nominal	
Power @ 40° (W)	1.5	
Insulation Resistance	>1000 Mohm @ 1000 VDC	
Dielectric Strength	1 minute @ 1000 VAC	
Noise	< 100 ohms ENR	
Mechanical Specifications		
Mechanical Angle	320° ±5°	360° (continuous)
Maximum Operating Torque	0.3 (Ncm)	
Stopper Strength	25 (Ncm)	-
Life Expectancy	1 million cycles	
Max. Axial Play of Shaft	0.2 mm	
Max. Radial Play of Shaft	0.1 mm	
Vibration	15 g / 10Hz to 2,000 Hz	
Shock	50 g / 11ms	
Bearing	Sleeve bearing	
Environmental Specifications		
Operating Temperature	-40°C to +105°C	
IP Protection Grade	IP40 (IP65 optional)	
Standard	per MIL-R-12934	

Materials	
Housing	Engineered plastic (glass reinforced, Polyamid)
Shaft	Stainless steel
Bushing	Brass
Terminals	Gold plated -solderable or snap-on (DIN 46247)

Resolution Chart

Resistance Value (ohms)	Resolution (%)	Vmax across element (V)	I _{max} through element (mA)	Temperature coefficient of element (±ppm/k)
100	0.270	12	120	80
200	0.210	17	87	
500	0.220	27	55	
1k	0.180	39	40	20
2k	0.140	55	27	
5k	0.100	86	17	
10k	0.084	120	12	
20k	0.067	170	8	

Standard Dimensisons (mm)



Options

- Extra tap (1 only)
- Special shaft machining
- Rear shaft
- Slipping clutch
- Special operating angles
- Tighter tolerances
- Multiple gangs (up to 10)
- Sealed housing
- Higher IP ratings
- Special resistance values
- High torque
- O-ring shaft seal

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