



**High Precision**

**Servo Mount**

- **355° Electrical Angle**
- **±0.3% Standard Linearity**
- **2 Million Turns Life**
- **3.5 Watts**
- **All Metal Construction**

Precision machining and high quality components combine to produce a high precision, long life potentiometer with a wide angle of measurement. Dual precision ball bearings. Many options are available to tailor the potentiometer to a specific application.

Electrical Specifications	RPS 45
Resistance Values (ohms)	10, 20, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 50K (fractional values available)
Resistance Tolerance	±3% (±1% optional)
Linearity Tolerance (Independent)	±0.3% (±0.1% optional above 2K ohm)
Electrical Angle	355 +4°
Insulation Resistance	1000 Mohms @ 1000 VDC
Dielectric Strength	1000 VAC, 1 minute
Noise	<100 ohms ENR
End Resistance	0.05%
Power	3.5 Watts @ +40°C
Mechanical Specifications	
Mechanical Angle	360° - continuous (no stops)
Torque (Ncm)	Starting: 0.4 max / Operating: 0.3
Max. Axial Play of Shaft (mm)	0.1
Max. Radial Play of Shaft (mm)	0.05
Typical Life (# of turns)	2 million
Vibration	15G, 10Hz to 2,000Hz
Shock	50G, 11ms
Bearing	2 x precision ball bearings
Weight	90 grams
Environmental Specifications	
Operating Temperature	-55°C to +125°C
IP Protection Grade	IP40 (IP54 optional)
Standards	MIL-R-12934

## Materials

Housing	Anodized aluminum
Servo fixing clamps	Type SFN1 (3 provided)
Shaft	Stainless steel
Terminals	Gold plated

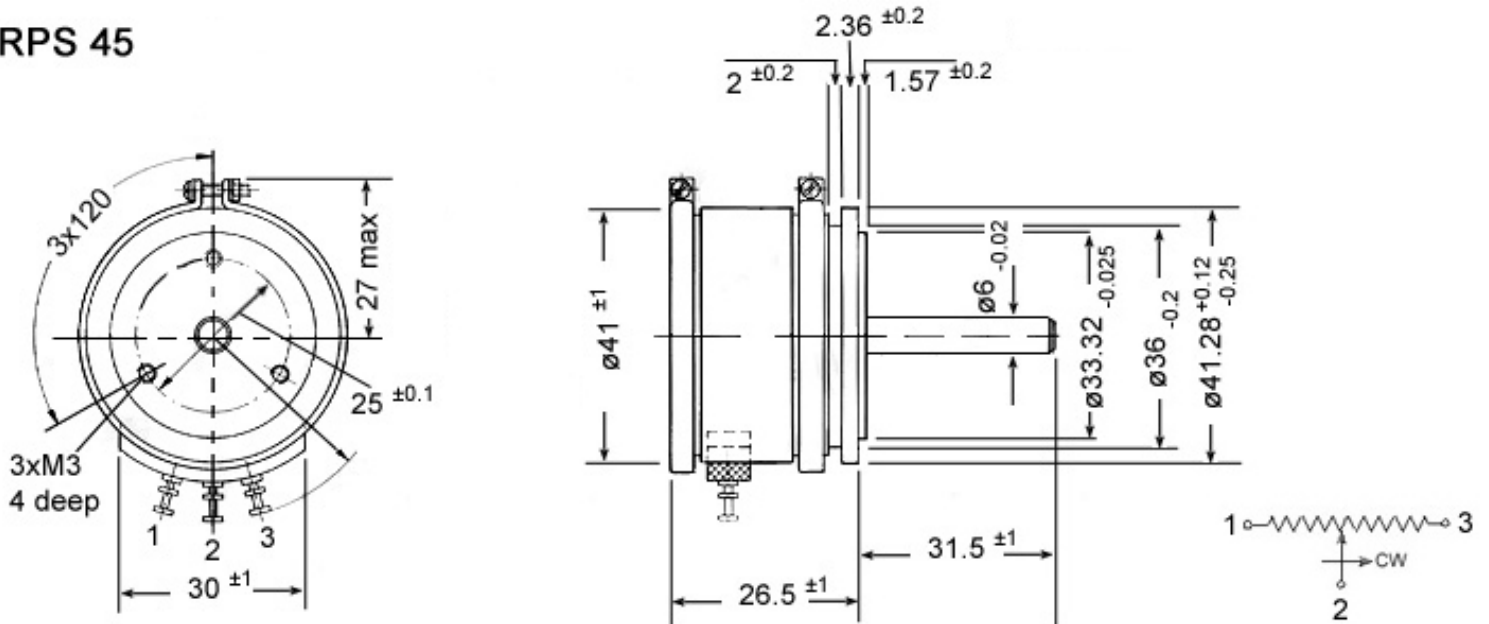
## Resolution Chart

Resistance value (ohms)	Resolution (%)	V <sub>max</sub> across element (V)	I <sub>max</sub> through element (mA)*	Temperature coefficient of wire (±...ppm/K)
10	0.220	6	590	700
20	0.180	8.4	418	
50	0.220	13	264	
100	0.170	19	187	80
200	0.140	26	132	
500	0.100	42	84	
1k	0.110	59	59	20
2k	0.100	84	42	
5k	0.070	132	26	
10k	0.055	187	18	
20k	0.044	250**	13	
50k	0.032	250**	8	

\*\* Max. working voltage

## Dimensions (mm)

### RPS 45



## Options

- Rear shaft extension (6mm x 15mm)
- Non standard resistance values
- Extra tap (5 taps max.)
- Special operating angles
- Special shaft shapes
- Sealed housing
- Improved tolerances
- Multiple gangs (up to 7)
- Bushing mount

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