

- $\pm 0.20\%$  Linearity
- 3, 5 and 10 Turn Models
- 2 Million Turns Life
- High Precision



The AC series of multi-turn wire-wound potentiometers set the standard for high precision, industrial quality in a small (20mm) diameter package. High quality internal components combined with precision machining make this series ideal for demanding feedback applications where size, precision and long life are one of the factors. A wide list of options are available.

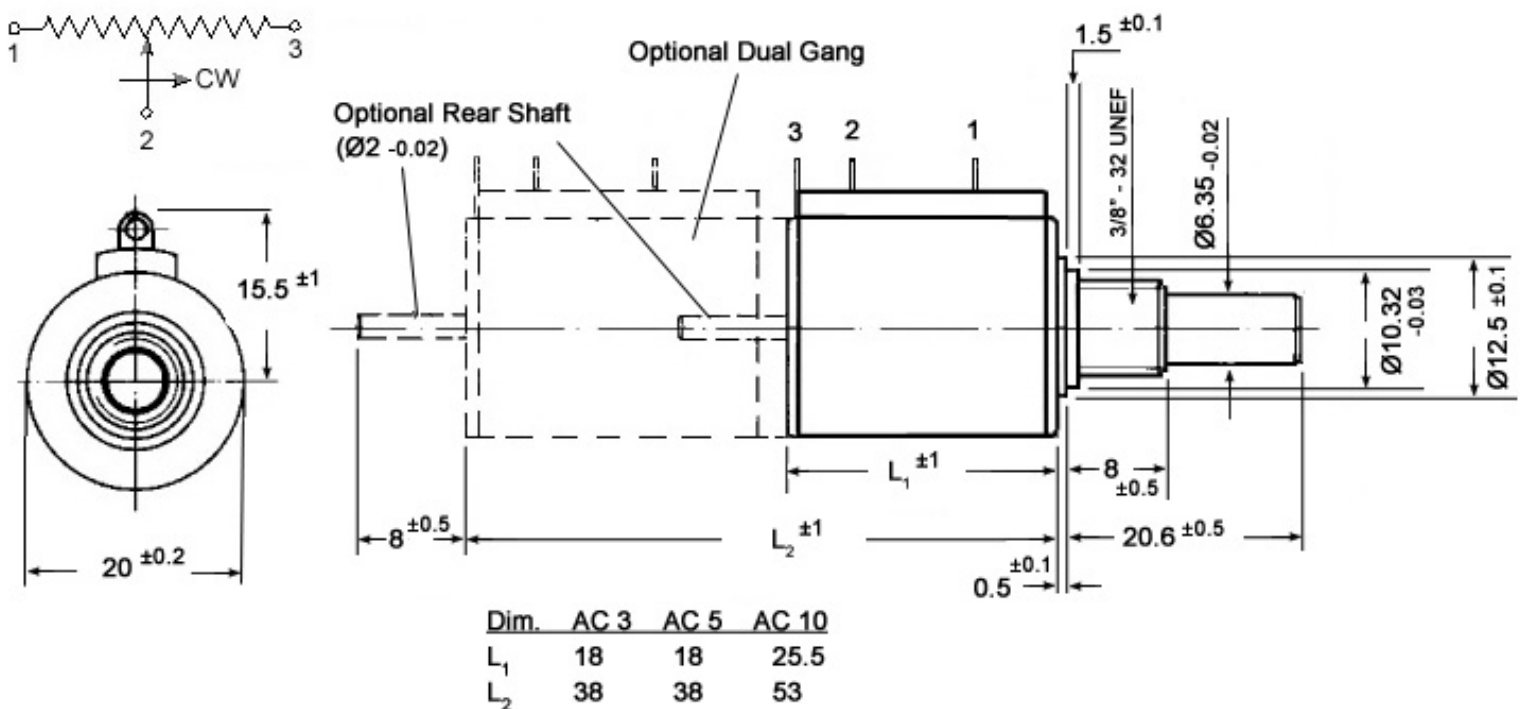
Electrical Specifications	AC 3	AC 5	AC 10
Resistance Values (ohms)	10 to 50K	10 to 100K	20 to 200K
Resistance Tolerance	$\pm 3\%$ standard ( $\pm 1\%$ optional)		
Linearity Tolerance	$\pm 0.20\%$ standard		
Electrical Angle (+10°, -0°)	1080°	1800°	3600°
End Resistance	< 0.05%		
Insulation Resistance	1000 Mohms @ 500 VDC		
Dielectric Strength	1000 VAC, 1 minute		
Noise	< 100 ohms E.N.R.		
Power @ 40°C	2W	2.5W	3W
Mechanical Specifications			
Number of Turns	3	5	10
Mechanical Angle (+10°, -0°)	1080°	1800°	3600°
Maximum Operating Torque	0.4 (Ncm)		
Stopper Strength	80 (Ncm)		
Axial Shaft Play	0.2mm (max.)		
Radial Shaft Play	0.06mm (max.)		
Typical Life Span	2 million turns		
Vibration	15g, 10Hz to 2,000Hz		
Shock	50g, 11ms		
Bearing	sleeve (servo mount available)		
Environmental Specifications			
Operating Temperature	-55°C to +105°C		
IP Protection Grade	IP40 (IP54 optional)		
Standards	MIL-R-12934		
Materials			
Housing	phenolic resin, black		
Bushing	metal		
Shaft	stainless steel		
Terminals	gold plated		

## Resolution Chart

Resistance (ohms)	Resolution (%)			V max. across element (V)			I max. through element (mA)*			Temp. Coefficient ( $\pm$ ppm/K)
	AC 10	AC 5	AC 3	AC 10	AC 5	AC 3	AC 10	AC 5	AC 3	
10	-	0.1020	0.1390	-	5	4	-	500	477	700
20	0.0541	0.0820	0.1030	8	7	6	370	353	316	700
50	0.0392	0.1020	0.1330	12	11	10	250	223	200	700
100	0.0526	0.0950	0.1030	17	16	14	176	158	141	80
200	0.0445	0.0800	0.1020	24	22	20	125	112	100	80
500	0.0304	0.0645	0.0850	39	35	32	73	71	63	80
1k	0.0288	0.0526	0.0666	55	50	44	54	50	44	20
2k	0.0247	0.0417	0.0503	77	70	63	39	35	32	20
5k	0.0196	0.0308	0.0385	122	112	100	25	22	20	20
10k	0.0162	0.0250	0.0328	172	158	141	17	16	14	20
20k	0.0129	0.0193	0.0286	245	223	200	12	11	10	20
50k	0.0100	0.0141	0.0222	385	353	316	8	7	6	20
100k	0.0071	0.0150	-	300**	500	-	6	5	-	20
200k	0.0057	-	-	500**	-	-	6	-	-	20

\* Maximum current through the wiper must not exceed 35mA \*\*Maximum voltage

## Dimensions (mm)



## Options

- Special shaft shapes
- Limit switch adaptor
- Extra tap (1 tap max.)
- Sealed housing
- Slipping clutch
- Special resistance values
- Tighter tolerance
- High torque
- Shaft o-ring

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