

- $\pm 0.25\%$ Linearity
- 5 and 10 Turn Models
- Up to 10 Million Turns Life
- High Precision



The AL24 series of multi-turn wire-wound potentiometers set the standard for high precision, industrial quality in a small (20mm) diameter package. True Hybrid technology combines the infinite resolution and long life of conductive plastic with a traditional wire-wound element for superior performance.

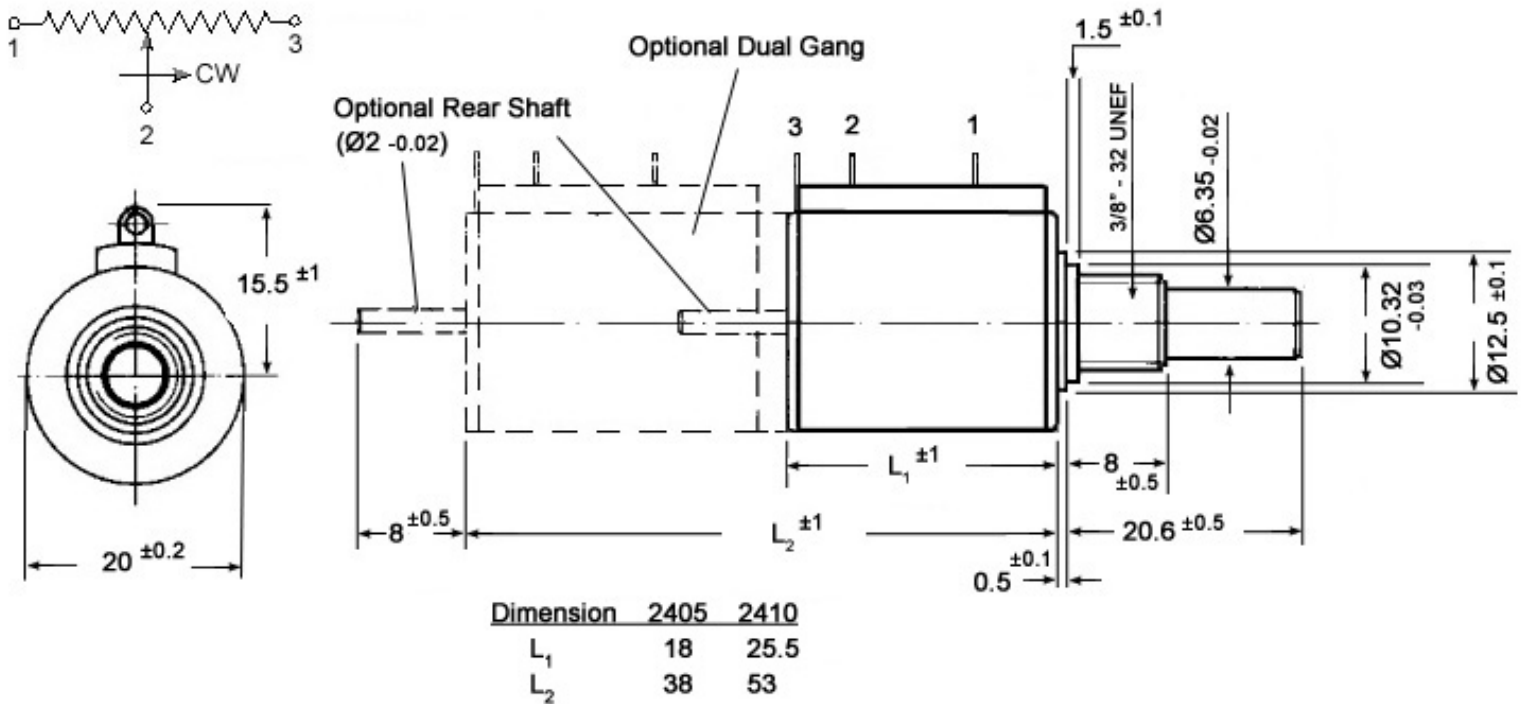
Electrical Specifications	AL2405	AL2410
Resistance Values (ohms)	1k ... 50k	1k ... 100k
Resistance Tolerance	$\pm 5\%$ standard ($\pm 2\%$ optional)	
Linearity Tolerance	$\pm 0.25\%$ standard	
Electrical Angle ($\pm 5^\circ$)	1800°	3600°
End Resistance	< 0.1%	
Insulation Resistance	1000 Mohms @ 1000 VDC	
Dielectric Strength	1000 VAC, 1 minute	
Output Smoothness	< 0.05%	
Power @ 40°C	1W	2W
Mechanical Specifications		
Number of Turns	5	10
Mechanical Angle (+10°, -0°)	1800°	3600°
Maximum Operating Torque	0.5 (Ncm)	
Stopper Strength	80 (Ncm)	
Axial Shaft Play	0.2mm (max.)	
Radial Shaft Play	0.06mm (max.)	
Typical Life Span	5 million turns	10 million turns
Vibration	15g, 10Hz to 2,000Hz	
Shock	50g, 11ms	
Bearing	sleeve (servo mount w/ball bearings 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 value (ohms)	Resolution (%)	V max across element (V)		I max through element (mA)*		Temp. coefficient of element (ppm/K)
		AL2405	AL2410	AL2405	AL2410	
1k	Essentially Infinite	-	55	-	35	±100
2k		71	78	14	25	
5k		112	122	9	16	
10k		158	174	6	11	
20k		220	245	4	8	
50k		350	385	3	5	
100k		400	400	3	5	

* Maximum current through the wiper must not exceed 5mA

Dimensions (mm)



Options

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

P3 America, Inc.

3089C Clairemont Dr. # 363 - San Diego, Ca. 92117

Phone: (858) 277-1420 Fax: (858) 225-0439

www.p3america.com