

- **Small Dimensions**
- **10 Turns (3 & 5 optional)**
- **Bushing & Servo Mount**
- **10 Million Turns Life**



AL1110



AL1410

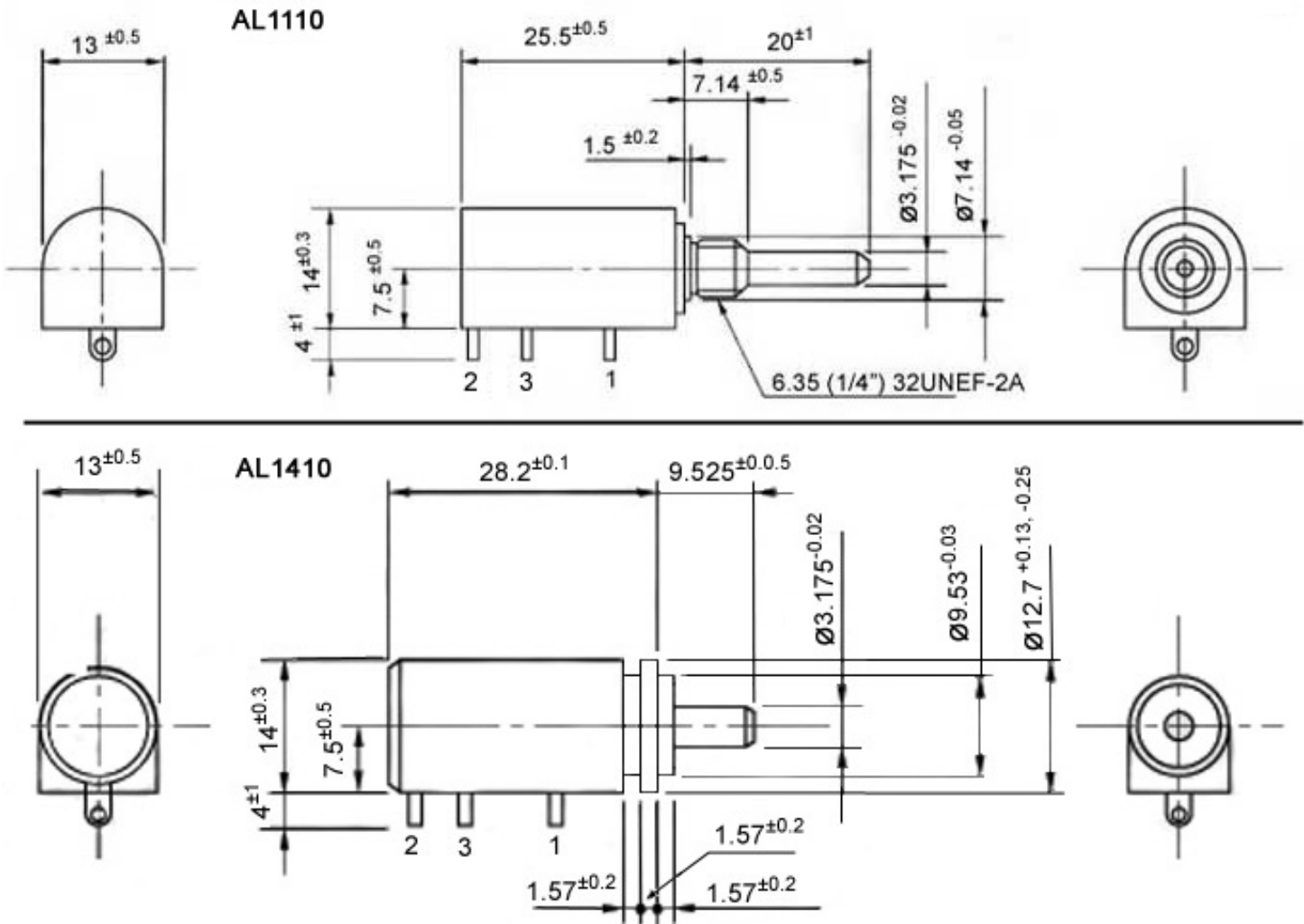
High precision and long life characterize this miniaturized series of multi-turn potentiometers. True Hybrid technology combines the infinite resolution and long life of conductive plastic with a traditional wire-wound element for superior performance.

Electrical Specifications	AL1110 (bushing mount)	AL1410 (servo mount)
Resistance Values (ohms)	1k ... 100k	
Resistance Tolerance	±10% (5% optional)	
Linearity Tolerance (std.)	± 0.4%: 5k and higher	±0.5%: <5k
Electrical Angle +10°, -0°	3600°	
End Resistance	< 0.1%	
Insulation Resistance	1000 Mohms at 500 VDC	
Dielectric Strength	1000 VDC, 1 minute	
Output Smoothness	< 0.05%	
Power	1W @ +20°C	
Mechanical Specifications		
Number of Turns	10 (3 & 5 turns optional)	
Mechanical Angle +15°, -0°	3600°	
Starting Torque (Ncm)	0.5	0.4
Stopper Strength (Ncm)	20	
Axial Play of Shaft (mm)	0.3 max.	
Radial Play of Shaft (mm)	0.08 max.	
Typical Life (# of turns)	10 million	
Bearing	sleeve	ball bearing
Weight (g)	10	15
Environmental Specifications		
Operating Temperature	-55°C to +105°C	
Vibration	15 g / 10Hz to 2,000 Hz	
Shock	50 g / 11ms	
IP Protection Grade	IP40 (IP54 optional)	
Standards	MIL-R-12934	
Materials		
Housing	phenolic resin	
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
1k	Essentially Infinite	32	32	150 ppm/K
2k		45	22	
5k		71	14	
10k		100	10	
20k		142	7.1	
50k		222	4.5	
100k		316	3.1	

## Dimensions (mm)



## Options

- Sealed housing
- Shaft machining
- Tighter tolerances
- Rear shaft extension
- Special resistance values
- 3 and 5 turn models

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