

5320 SERIES | PANEL POT

Rotary Precision Position Sensor Single Turn, Compact, Sealed, Extended Life

Introduction

The 5320 Series offers a highly reliable rotary potentiometer sensor that can be easily integrated or re-packaged into a wide variety of existing and new applications. The 5320 Series is ideally suited for tight packaging constraints while providing superior durability, long service life and repeatable accuracy.

The sensor is fully sealed and impervious to contamination and moisture. A wide variety of standard and non-standard options are available including detent functions, electrical/mechanical angles, shaft/bushing sizes, lengths and configurations, resistance values, etc.

The 5320 Series standard termination offers gold plated through holes for direct soldering. Options are also available for custom termination methods. The 5320 series sensors offer all of the advantages of a cost effective, traditional potentiometer while providing a rugged, compact, low-profile design to survive the harshest conditions.



Features

- **Extended Operating Life**
1 million plus operational cycles
- **Fully Sealed Construction**
Meets or exceeds IP66/IP67 standards
- **Extended Temperature Range**
Operating: -40° to +125°C
Storage: -55° to +150°C
- **High Quality, Rugged Construction**
Stainless Steel Shaft, Nickel Plated Brass Bushing
- **Wide Range of Configurations (see ordering info)**
Shaft and Bushing Lengths
Linearity (accuracy) Tolerance Limits
With or Without Detent Function
Total Resistance
Custom Options Available

SPECIFICATIONS

Mechanical

Total Travel (stop to stop)	250 degrees
Stop Strength	1350 Nmm (190 in-oz)
Shaft Pull Out Strength	200N (45lbs)
Shaft Operating Torque	5-25 Nmm (0.7-3.5 in-oz)
Shaft Starting Torque	35 Nmm (5 in-oz) Max.
Cycle Life	1 Million cycles
Detent Life	10,000 cycles
Detent Torque	35-120 Nmm (5-17 in-oz)
Detent Release Position	20 degrees Max.

Electrical

Electrical Travel	240 degrees
Active Electrical Travel	216 degrees (5%-95%)
PowerRating at 70C	0.25W (derating to 0 at 125C)
Resistance Tolerance	±20%
Linearity, Independent	±2% (Active)
RGV	100% Max.
(Output Smoothness)	(0.2%) Max.

Environmental

Moisure & Dust Resistant	Sealed, IP66/IP67
Vibration	15g, 10 to 2000 Hz
Temperature	-40°C to +125°C operating, -55° to +150°C storage
Shock	30g
Salt Spray	96 hours
Resistance to Solder Heat	350°C (660°F) for 5 sec. (at termination points)

Materials

Shaft	Stainless Steel
Bushing	Nickel Plated Brass
Housing (Package)	Nylon 6 (Akulon)
PCB	4101/21 (FR-4)



ORDERING OPTIONS

Family

532X: 5321
5322
5323

Total Resistance

Standard: 1K
5K
10K

Independent Linearity

LX.X: +/-2.0%

Detent

Blank: None

D: Included

Example : 5321 R5K L2.0

No Detent Function, Standard +/-2.0% Linearity, 5K Total Resistance

Basic Configurations: Shaft & Bushing Lengths



