

**BOURNS**

Model 3053 TRIMPOT® Potentiometer  
 High Temp., Humidity-Proof  
 PALIRIUM® Element Potentiometer

MAY, 1963

**OBSOLETE****FEATURES**

- Stable infinite resolution PALIRIUM element.
- Available in resistances from 2Ω to 100Ω
- High operating temperature (175°C).
- Meets or exceeds the requirements of MIL-R-22097B.
- Low temperature coefficient : 0 to +.04%/°C
- High power dissipation 0.5 watts at 70°C
- Excellent shock, vibration and acceleration stability.
- Wiper assembly idles at both ends of travel preventing damage from forced adjustments.
- 25-turn screwdriver adjustment.
- Outstanding Mil Spec humidity performance.
- Each instrument individually inspected for guaranteed electrical and physical characteristics.

actual size



Panel Mount Model 3053 Available.①

**Standard Resistances**

Resistance (Ohms)	Part Numbers *		
	Stranded Insulated Lead Wires	Gold Plated Printed Circuit Pins	End Settings %VR Max.
2	Not available	3053P-1-2R0	15.0
5	Not available	3053P-1-5R0	5.0
10	Not available	3053P-1-100	3.0

SPECIAL RESISTANCES AVAILABLE FROM 2Ω TO 100Ω

\*The last three digits of the part number represent the resistance in standard code.

Resistance (Ohms)	Part Numbers *		
	Stranded Insulated Lead Wires	Gold Plated Printed Circuit Pins	End Settings %VR Max.
20	3053L-1-200	3053P-1-200	2.5
50	3053L-1-500	3053P-1-500	2.0
100	3053L-1-101	3053P-1-101	1.0

① When ordering Panel Mount Model, add "M" to part number. Example: 3053L-1-200M

**BOURNS, Inc.**

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Specifications

ELECTRICAL CHARACTERISTICS

Resistance Values	2Ω to 100Ω
Resistance Tolerance*	2Ω ±15% standard, closer tolerances available 5Ω to 100Ω ±10% Standard, closer tolerances available
Continuity*	Maintained for full mechanical range
Insulation Resistance, 500 VDC*	1000 megohms minimum
Contact resistance variation, Max.	2Ω and 5Ω: 2.0% 10Ω to 100Ω: 1.0%

ENVIRONMENTAL CHARACTERISTICS

Power Ratings:	
70°C (122°F) Ambient	0.5 watt
125°C (239°F) Ambient	0.25 watt
175°C (302°F) Ambient	0 watt
Operating Temperature Range	-65 to 175°C (-85 to 347°F)
Temperature coefficient of Potentiometer, Maximum	2Ω and 5Ω: 0 to +.04%/°C 10Ω to 100Ω: 0 to +.03%/°C
Humidity,	MIL-R-22097B 100 Megohms min. Insulation Resistance after removal from chamber
Vibration	MIL-R-22097B, 30G
Contact Bounce	0.1 Milliseconds Maximum
Wiper Shift, Maximum	0.5% voltage ratio
Shock	MIL-R-22097B, 100G
Contact Bounce and Wiper Shift	Same as vibration
Sand and Dust	Materials meet MIL-E-5272C, Procedure 1
Salt Spray	Meets MIL-STD-202B, Method 101A
Fungus	Materials meet MIL-E-5272C

Load Life	1000 hours per MIL-R-22097B
Resistance Shift, Maximum	2.0%
Mechanical Life	200 cycles without discontinuity
Dielectric Strength	MIL-R-22097B
Room Conditions	1500 VAC
80,000 feet (0.8" Hg)	500 VAC

PHYSICAL CHARACTERISTICS

Immersion Leak Test *	No leaks
Shaft Torque*	5.0 oz-in max.
Markings*	Manufacturer's name, wiring diagram, date code, resistance, and manufacturer's part number (customer's part number optional)
Appearance*	Legible markings, no physical defects
Mechanical Adjustment	25 turns nominal
Mechanical Stops	Wiper assembly idles
Weight	Approximately 0.1 oz.
Terminals:	
L	Teflon Insulated Stranded Leads, 7 strands/36 AWG
P	Gold Plated Grade A Nickel Printed Circuit Pins

\*Inspection Note: Applicable 100% and Statistical Sampling Performed to Insure Utmost Quality.

Specification Note: Closer performance tolerances can be supplied upon request.  
Specifications Subject to Change Without Notice.

OBSOLETE

