

**BOURNS®**

## Features

- Compact
- Sealed
- Long life
- Infinite resolution
- Free shaft rotation
- AC or DC
- Shaft options available
- Flexible wire leads
- Economical
- RoHS compliant†

# 3046 Linear Motion Potentiometer

## Specifications\*

Standard Electrical Travel  
 .....0.15, 0.25, 0.35 in.  
 (3.81, 6.35, 8.89 mm)

Standard Resistances  
 .....1K to 50K ohms (±20 %)

Independent Linearity .....±5 %

Resolution .....Infinite

Power Rating @ 70 °C (158 °F)  
 .....0.125 watt

Operating Temperature Range  
 .....-55 °C to +125 °C

Temperature Coefficient ....1000 PPM/°C

Insulation Resistance .....50 megohms  
 @ 500 VDC

Backlash .....Negligible

Shaft Actuating Force...2N max. @21 °C

Life.....500,000 cycles

Shock .....50 G for 7ms

Vibration .....20 G, 10-2K Hz

Marking .....Manufacturer's trademark,  
 resistance code, wiring diagram,  
 date code, manufacturer's model  
 number and style

Specifications are typical. Contact factory for special requirements.

\*Specifications applicable from 5 % to 95 % of electrical travel.

## How to Order

**3046 L - 2 - 502**

Model \_\_\_\_\_

Style \_\_\_\_\_

Range (Travel) \_\_\_\_\_

1 = 0.15 " (3.81 mm)

2 = 0.25 " (6.35 mm)

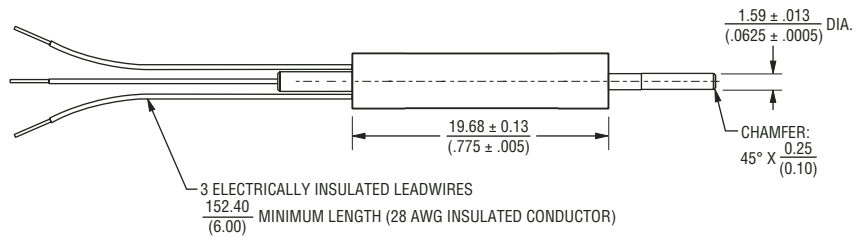
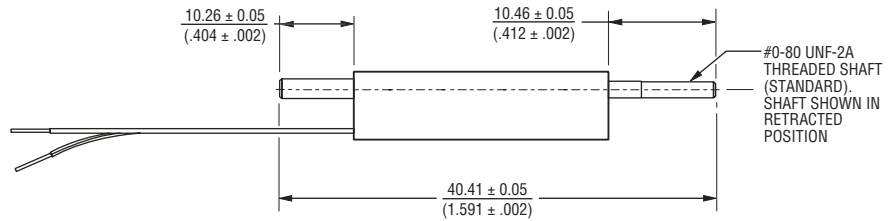
3 = 0.35 " (8.89 mm)

Resistance Value \_\_\_\_\_

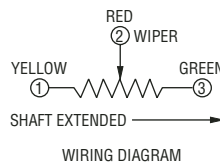
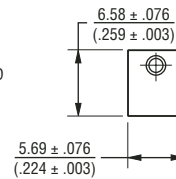
## Standard Resistance Table

Resistance (Ohms)	Resistance Code
1,000	102
2,500	252
5,000	502
10,000	103
20,000	203
50,000	503

## Product Dimensions



TOLERANCES: ± .010 (0.25) EXCEPT WHERE NOTED



DIMENSIONS ARE:  $\frac{\text{MM}}{\text{(INCHES)}}$

# MATERIAL DATA SHEET



Reliable Electronic Solutions

Material #	3046 series	
Product Line	Trimmer	
Date	8/25/2004	
RoHS Compliant	Yes	

No.	Construction element	Material group	Material weight [g]	Materials	CAS if applicable	Average mass [%]	Sum [%]
1	Contact Spring	Ni/Ag	0.001	Nickel	7440-02-0	0.05	0.32
			0.004	Copper	7440-50-8	0.18	
			0.002	Zinc	7440-66-6	0.09	
2	Housing	PBT	0.611	Poly (Butylene terephthalate)	30965-26-5	27.41	31.13
			0.042	Antimony Trioxide	1309-64-4	1.88	
			0.041	Tetrabromobisphenol A Polymer		1.84	
3	Post	Nylon	0.022	Polyhexamethylene adipamide	32131-17-2	0.99	0.99
4	Potting	Epoxy	0.087	DGEBA(Diglycidyl Ether Bisphenol A Epoxy)	25068-38-6	3.90	4.39
			0.011	Antimony Trioxide (flame retardant)	1309-64-4	0.49	
5	Shaft	Stainless Steel	0.557	303 Stainless		24.99	24.99
6	Element	Ceramic	0.266	Alumina	1344-28-1	11.93	11.93
7	Resistor/Conductor	Conductive Plastic Ink	0.006	Resin A		0.27	0.40
			0.003	Resin B		0.13	
8	Pins	Copper with Silver plate; Teflon covered	0.576	Copper	7440-50-8	25.84	25.84
				Silver	7440-22-4		
			Total weight	2.229			