



## Features

- Carbon element
- Red, orange, green and amber LED colors
- Center detent option
- Assortment of resistance tapers
- Various travel lengths
- Various lever sizes



## PTL Series Slide Potentiometer w/LED

### Electrical Characteristics

Standard Resistance Range	..... 1K ohms to 1 megohm
Standard Resistance Tolerance...	±20 %
End Resistance	
20 mm Travel.....	10 ohms max.
30 mm Travel.....	20 ohms max.
45 mm Travel.....	20 ohms max.
60 mm Travel.....	30 ohms max.
Insulation Resistance @ 250 VDC	..... 100 megohms min.
Dielectric Withstanding Voltage	..... 300 VAC
Standard Taper.....	Linear, Audio
Power Rating - Linear	
20 mm Travel.....	0.05 watt
30 mm Travel.....	0.1 watt
45 mm Travel.....	0.125 watt
60 mm Travel.....	0.2 watt
Power Rating - Audio	
20 mm Travel.....	0.025 watt
30 mm Travel.....	0.05 watt
45 mm Travel.....	0.06 watt
60 mm Travel.....	0.1 watt
Slider Noise .....	200 mV max.

### Environmental Characteristics

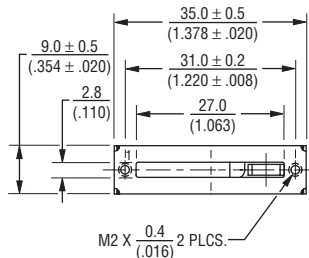
Operational Life .....	15,000 cycles
TR Shift .....	±15 %
Operating Temperature Range	..... -10 °C to +55 °C
Resistance to Solder Heat.....	±5 %

### Mechanical Characteristics

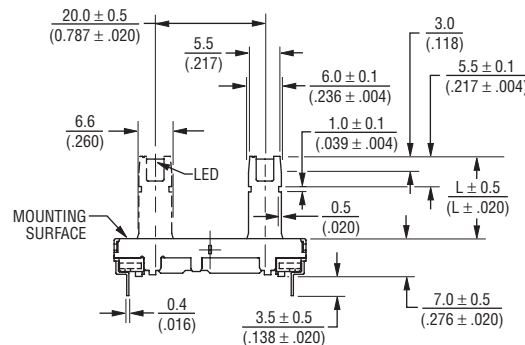
Mechanical Travel.....	Length ±0.5 mm
Operating Force .....	30 gf to 250 gf
Center Detent Force.....	20 gf to 200 gf
Stop Strength .....	5 kgf min.
Shaft Axial Force .....	5 kgf min.
Shaft Wobble.. 2(2 x L/20) mm p-p max.	
Soldering Condition	
Manual .....	300 °C ±5 °C for 3 sec.
Wave .....	260 °C ±5 °C for 5 sec.
Wash .....	Not recommended

### Product Dimensions

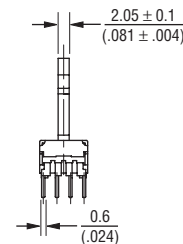
#### 20 mm Length of Travel



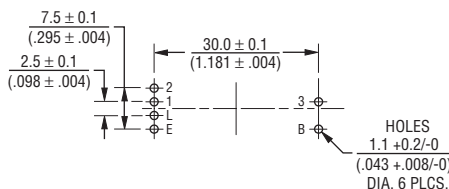
Lever Length
10.0 (.394)
15.0 (.591)
19.0 (.748)



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



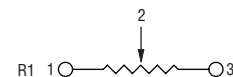
#### Mounting Hole Detail



### Standard Resistance Table

Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105

### Schematic



\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex  
 Specifications are subject to change without notice.  
 Customers should verify actual device performance in their specific applications.

## Applications

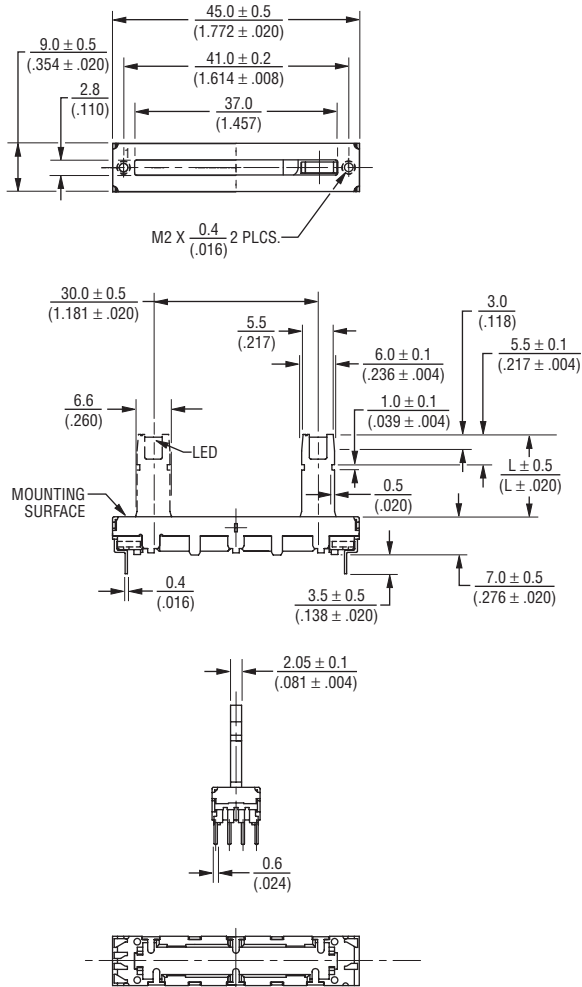
- Mixing consoles
- Drum machines
- Keyboards and synthesizers
- Equalizers

# PTL Series Slide Potentiometer w/LED

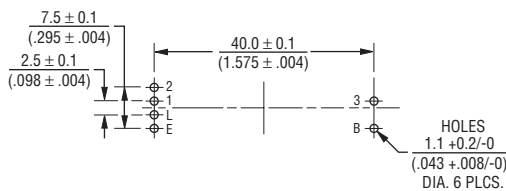
# BOURNS®

## Product Dimensions

### 30 mm Length of Travel

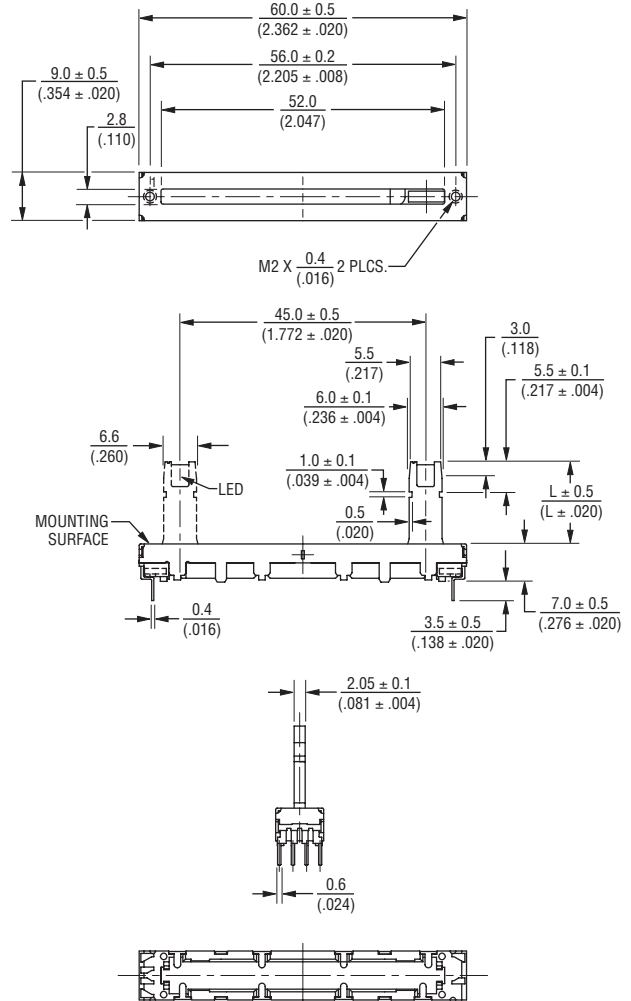


### Mounting Hole Detail

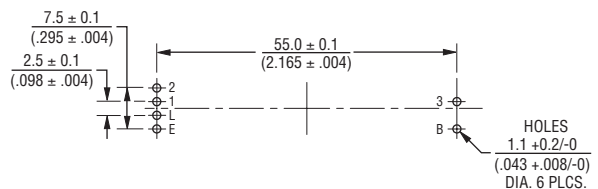


DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

### 45 mm Length of Travel



### Mounting Hole Detail



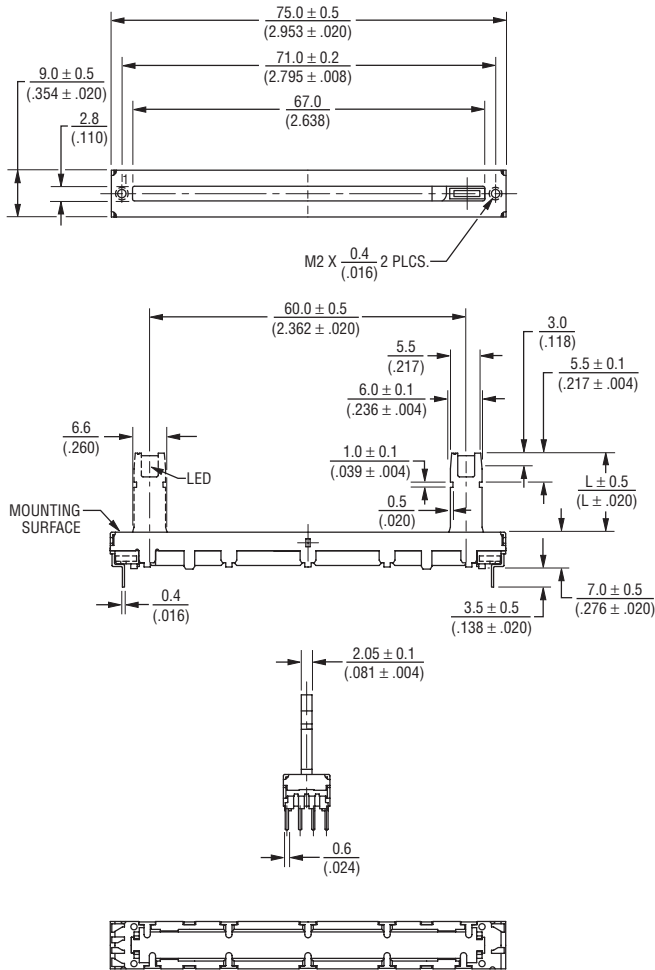
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# PTL Series Slide Potentiometer w/LED

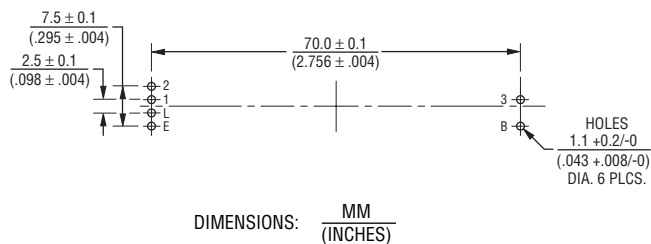
**BOURNS®**

## Product Dimensions

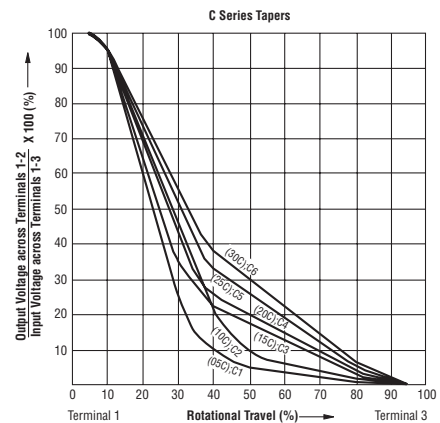
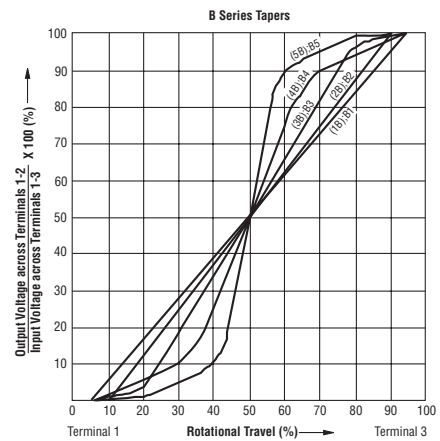
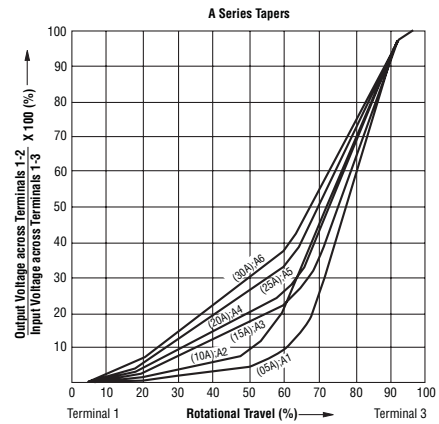
### 60 mm Length of Travel



### Mounting Hole Detail



## Tapers



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# PTL Series Slide Potentiometer w/LED

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## LED Characteristics

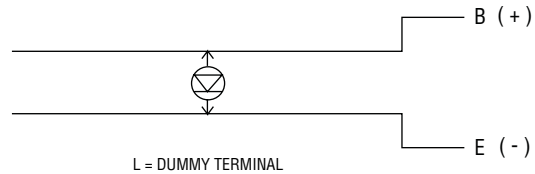
Emitter Color	Item	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Red	Forward Voltage	$V_F$	$I_F = 20 \text{ mA}$		2.1	2.5	V
	Luminous Intensity	$I_V$		0.3	0.6		mcd
	Peak Emission Wavelength	$\lambda_p$			660		nm
	Dominant Wavelength	$\lambda_d$			643		nm
	Spectral Line Half Width	$\Delta\lambda$			20		nm
Orange	Forward Voltage	$V_F$	$I_F = 20 \text{ mA}$		2.2	2.5	V
	Luminous Intensity	$I_V$		1.5	3.0		mcd
	Peak Emission Wavelength	$\lambda_p$			610		nm
	Dominant Wavelength	$\lambda_d$			605		nm
	Spectral Line Half Width	$\Delta\lambda$			35		nm
Green	Forward Voltage	$V_F$	$I_F = 20 \text{ mA}$		2.1	2.5	V
	Luminous Intensity	$I_V$		0.6	1.2		mcd
	Peak Emission Wavelength	$\lambda_p$			530		nm
	Dominant Wavelength	$\lambda_d$			35		nm
	Spectral Line Half Width	$\Delta\lambda$			160		nm
Amber	Forward Voltage	$V_F$	$I_F = 20 \text{ mA}$		2.1	2.6	V
	Luminous Intensity	$I_V$			5.0		mcd
	Peak Emission Wavelength	$\lambda_p$			585		nm
	Dominant Wavelength	$\lambda_d$		582	-	595	nm
	Spectral Line Half Width	$\Delta\lambda$			35		nm

## How To Order

**PTL 30 - 10 R 0 - 103 B2**

Model Number	PTL
Designator	30 = Slide Potentiometer w/LED
Length of Travel	10 = 20 mm, 45 = 45 mm, 30 = 30 mm, 60 = 60 mm
Lever Length	10 = 10 mm, 15 = 15 mm, 19 = 19 mm
LED Color	R = Red, O = Orange, G = Green, A = Amber
Detent Option	0 = No Detent, 1 = Center Detent
Resistance Code	(See Standard Resistance Table)
Resistance Taper	(See Taper Charts) Taper Series followed by Curve Number

## Circuit



REV. 06/10

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