Features

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

BOURNS® PRO AUDIO

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 %

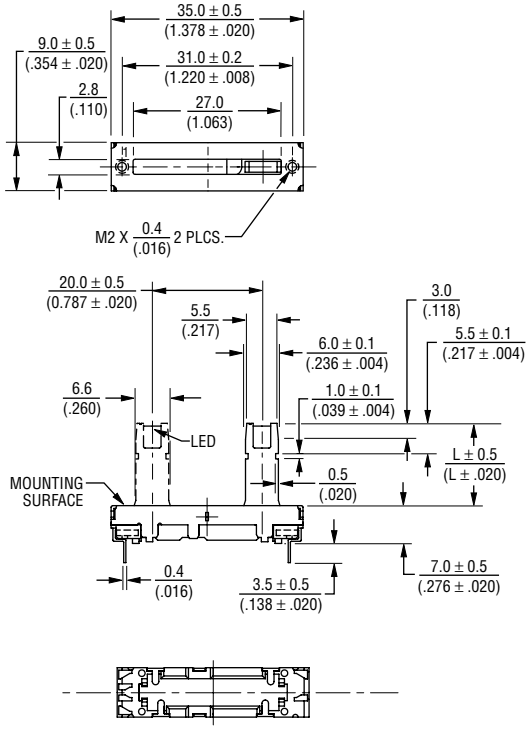
Operating Temperature Range ..... -10 °C to +55 °C
Resistance to Solder Heat..... ±5 %

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

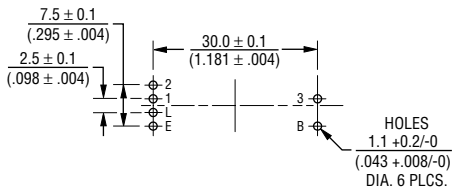
Product Dimensions

20 mm Length of Travel



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

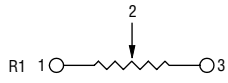
Mounting Hole Detail



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

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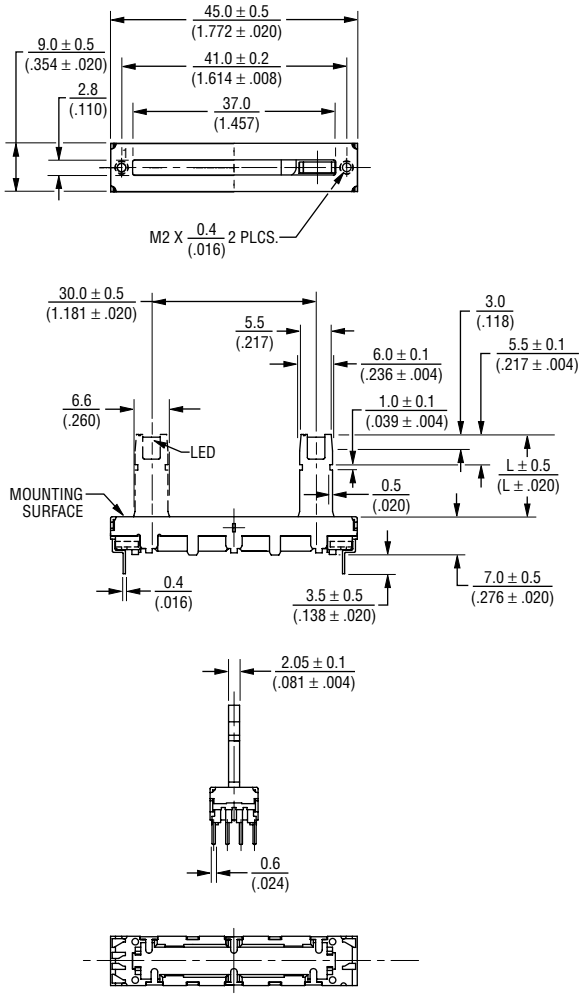
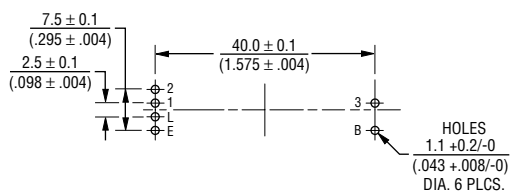
Product Dimensions

30 mm Length of Travel

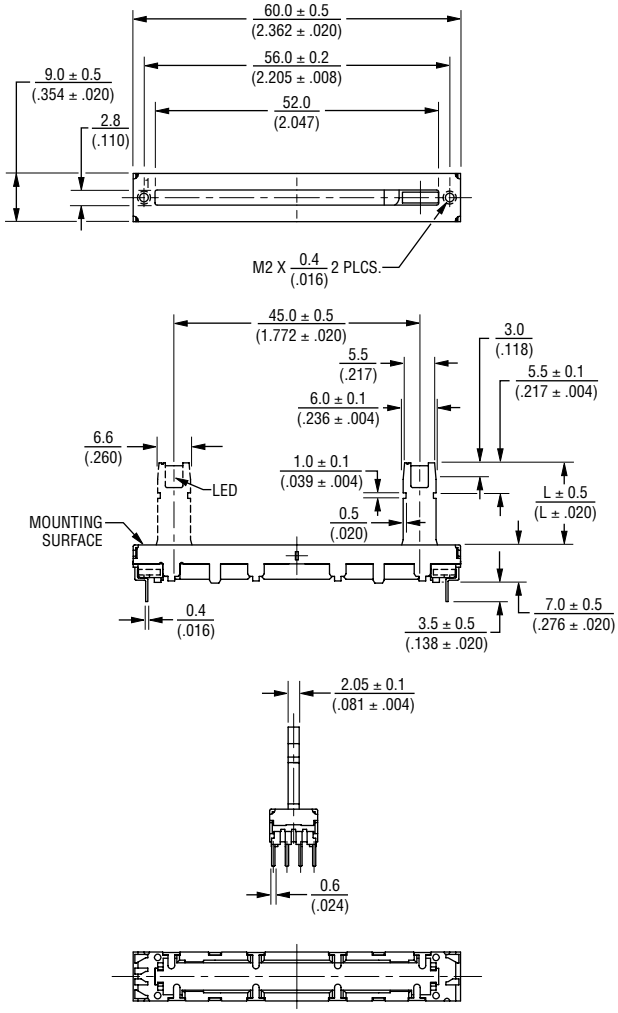


Mounting Hole Detail

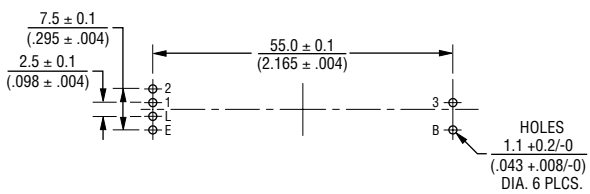


DIMENSIONS: MM / (INCHES)

45 mm Length of Travel



Mounting Hole Detail



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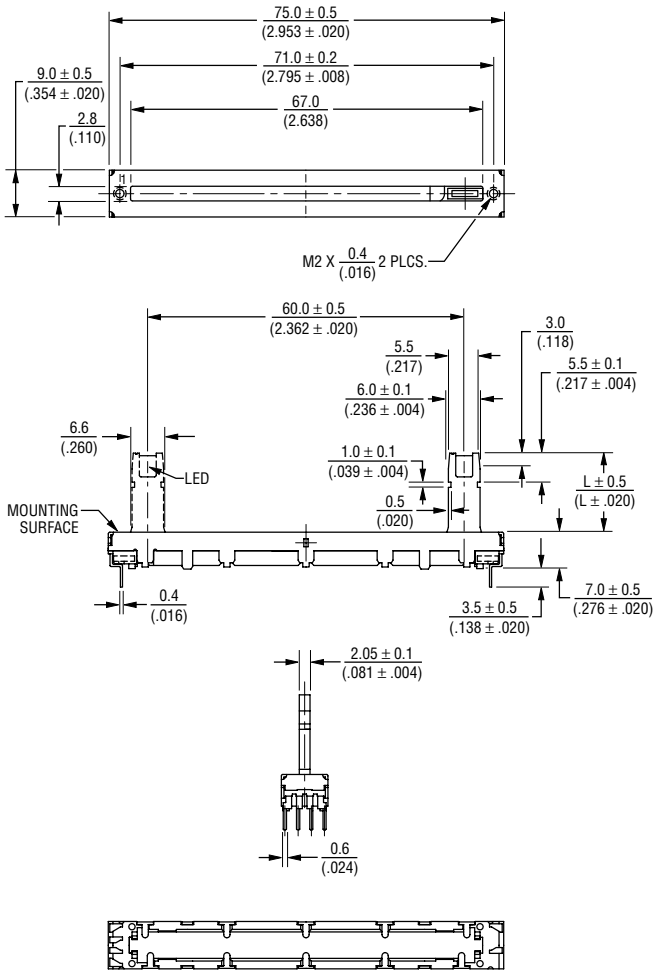
PTL Series Slide Potentiometer w/LED

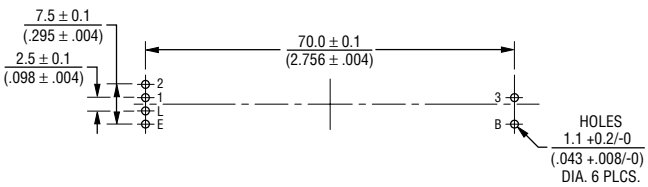
BOURNS®

Product Dimensions

60 mm Length of Travel

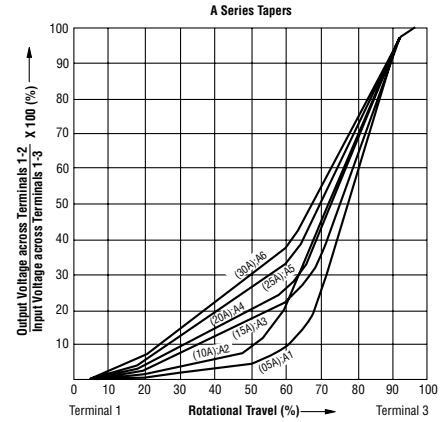


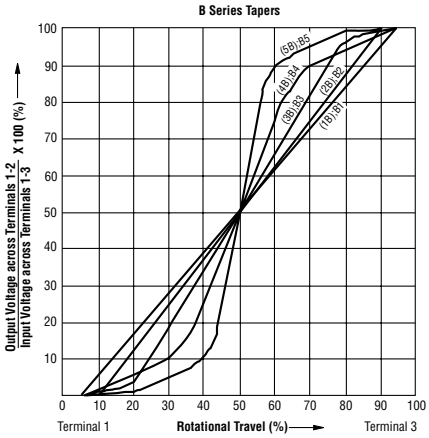
Mounting Hole Detail

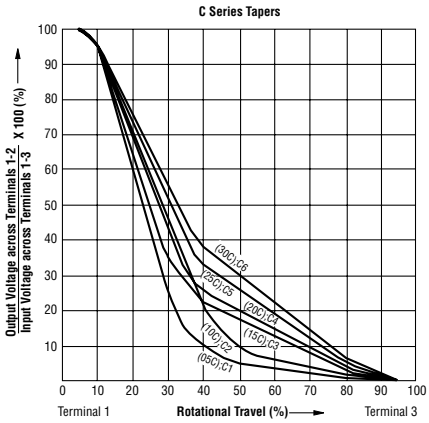


DIMENSIONS: MM / (INCHES)

Tapers







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LED Characteristics

Emitter Color	Item	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Red	Forward Voltage	V_F	I_F = 20 mA		2.1	2.5	V
	Luminous Intensity	I_V		0.3	0.6		mcd
	Peak Emission Wavelength	λ_p			660		nm
	Dominant Wavelength	λ_d			643		nm
	Spectral Line Half Width	$\Delta\lambda$			20		nm
Orange	Forward Voltage	V_F	I_F = 20 mA		2.2	2.5	V
	Luminous Intensity	I_V		1.5	3.0		mcd
	Peak Emission Wavelength	λ_p			610		nm
	Dominant Wavelength	λ_d			605		nm
	Spectral Line Half Width	$\Delta\lambda$			35		nm
Green	Forward Voltage	V_F	I_F = 20 mA		2.1	2.5	V
	Luminous Intensity	I_V		0.6	1.2		mcd
	Peak Emission Wavelength	λ_p			530		nm
	Dominant Wavelength	λ_d			35		nm
	Spectral Line Half Width	$\Delta\lambda$			160		nm
Amber	Forward Voltage	V_F	I_F = 20 mA		2.1	2.6	V
	Luminous Intensity	I_V			5.0		mcd
	Peak Emission Wavelength	λ_p			585		nm
	Dominant Wavelength	λ_d		582	–	595	nm
	Spectral Line Half Width	$\Delta\lambda$			35		nm
White	Forward Voltage	V_F	I_F = 20 mA		3.5	4	V
	Luminous Intensity	I_V			300.0		mcd
	Peak Emission Wavelength	λ_p			520		nm
	Dominant Wavelength	λ_d		460	–	470	nm
	Spectral Line Half Width	$\Delta\lambda$			35		nm

How To Order

PTL 30 - 10 R 0 - 103 B2

Model Number Designator
PTL = Slide Potentiometer w/LED

Length of Travel
20 = 20 mm 45 = 45 mm
30 = 30 mm 60 = 60 mm

Lever Length
10 = 10 mm
15 = 15 mm
19 = 19 mm

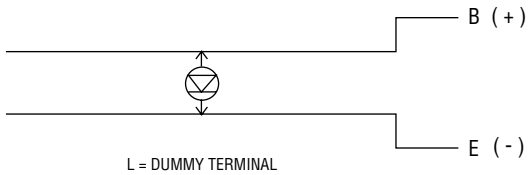
LED Color
R = Red A = Amber
O = Orange W = White
G = Green

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. 09/11

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Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bourns:

PTL45-15R0-202B2 PTL60-10R0-203B2 PTL30-10G1-204B2 PTL20-10G1-204B2 PTL60-10O0-105B2 PTL60-10O1-105B2 PTL20-10G0-204B2 PTL30-10G0-204B2 PTL45-15R1-202B2 PTL60-10R1-203B2 PTL45-19O1-105B2 PTL20-19G1-102B2 PTL30-15O1-104B2 PTL20-15O1-104B2 PTL30-19G1-102B2 PTL60-15G0-202B2 PTL60-15G1-202B2 PTL45-19O0-105B2 PTL20-15O0-104B2 PTL30-19G0-102B2 PTL20-19G0-102B2 PTL30-15O0-104B2 PTL30-15R1-103B2 PTL30-15G0-104B2 PTL20-15R1-103B2 PTL20-15G0-104B2 PTL45-10R0-105B2 PTL20-10O0-204B2 PTL30-10O0-204B2 PTL45-19G0-105B2 PTL20-15R0-103B2 PTL30-10O1-204B2 PTL45-19G1-105B2 PTL20-10O1-204B2 PTL30-15R0-103B2 PTL30-15G1-104B2 PTL20-15G1-104B2 PTL45-10R1-105B2 PTL20-19R0-104B2 PTL60-15O1-202B2 PTL30-19R0-104B2 PTL30-19O0-102B2 PTL20-19O0-102B2 PTL60-10G0-105B2 PTL20-19O1-102B2 PTL60-10G1-105B2 PTL30-19O1-102B2 PTL60-15O0-202B2 PTL20-19R1-104B2 PTL30-19R1-104B2 PTL20-15R0-202B2 PTL20-19R0-502B2 PTL30-10R1-503B2 PTL20-10R1-503B2 PTL30-15R0-202B2 PTL30-19R0-502B2 PTL45-19R0-203B2 PTL20-10R0-503B2 PTL30-10R0-503B2 PTL45-19R1-203B2 PTL20-15R1-202B2 PTL20-19R1-502B2 PTL30-15R1-202B2 PTL30-19R1-502B2 PTL45-19G1-503B2 PTL60-19G0-203B2 PTL30-15G1-502B2 PTL20-15G1-502B2 PTL45-10O1-103B2 PTL45-10G0-504B2 PTL45-10G1-504B2 PTL45-19G0-503B2 PTL20-15G0-502B2 PTL45-10O0-103B2 PTL30-15G0-502B2 PTL60-19G1-203B2 PTL45-10G0-103B2 PTL45-10G1-103B2 PTL30-15R0-504B2 PTL45-10O1-504B2 PTL20-15R0-504B2 PTL45-19O0-503B2 PTL20-15O0-502B2 PTL30-10R0-102B2 PTL20-10R0-102B2 PTL30-15O0-502B2 PTL60-19O1-203B2 PTL20-10R1-102B2 PTL30-15O1-502B2 PTL20-15O1-502B2 PTL30-10R1-102B2 PTL45-10O0-504B2 PTL30-15R1-504B2 PTL60-19O0-203B2 PTL20-15R1-504B2 PTL45-19O1-503B2 PTL45-10G1-203B2 PTL60-15O1-102B2 PTL60-15G0-503B2 PTL45-10G0-203B2