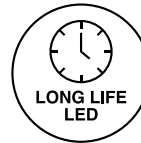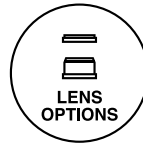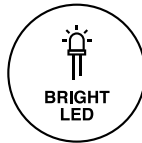# P8 Series
0.500" (12.7mm)
LED Panel Mount Indicator

Designed to enhance the LED contrast
Available in tab terminals or wire leads

BRIGHT LED

LED COLOR OPTIONS

MOUNTING HOLE Ø 0.500"

LENS OPTIONS

LONG LIFE LED

Application

- Industrial
- Transportation
- Food Service
- People Mover
- Monitoring Equipment
- Commercial Kitchen
- Oil and Gas Industry
- Manufacturing
- Automation & Control

Key features

- Snap-fit into 0.500" (12.7mm) panel hole
- Offered with wire leads or tab terminals, 2 different lens styles, 5 different lens colors and operating voltage range from 2 to 60 VDC and 120VAC
- Designed to enhance the LED contrast and features a front panel snap-in mounting that eases installation, and requires no additional hardware
- Available in two different lens styles: hi-hat or flat - all offered in five different lens colors with fresnel pattern lens that provides an excellent light focus and assures maximum light output
- Available with a variety of LEDs and provides low energy consumption, fast on/off cycling, low heat generation, and long operating life
- Available in six LED single colors: red, green, amber, orange, blue, and white
- Black housing offering which enhances the LED contrast
- "D" mounting hole prevents any rotation of the indicator when installed and connected during the assembly process
- Designed for quick installation in display panels and reduces overall cost due to less-frequent replacements
- Designed, manufactured and tested in accordance with the relevant UL standards
- Compliant with RoHS and REACH
- For customized options, please contact us

Ordering Data

TO ORDER, FOLLOW THE EXAMPLE   Part Number: **P81-G24-CG**

Select one **BOLD** component from each numbered category in the tables below.

1 Model	**2** LED	**3** Voltage	**4** Lens
P81	**-G**	**24**	**-CG**

1

Model	Characteristics
P81	Hi-Hat Lens/ Tab Terminals
P81W	Hi-Hat Lens/ Wire Leads
P84	Flat Lens/ Tab Terminals
P84W	Flat Lens/ Wire Leads

2

High Intensity - Waterclear Encapsulation					
LED	**Color**	**λpk (nm)**	**I_V[1] (mcd)**	**Viewing Angle**	**V/C Table[2]**
-R	RED	623	900	75	I
-O	ORG	605	360	75	I
-A	AMB	589	540	75	I
-G	GRN	525	1500	75	II
-B	BLU	460	1350	75	II
-W	CWHT		810	75	II

3

Voltage[3]
2
5H
6H
12H
15H
24H
28H
48H
60H
120

Voltage/Current		Voltage/Current	
Design V_f/I_f	Max V_f/I_f	Design V_f/I_f	Max V_f/I_f
V/C Table I		V/C Table II	
5V/22mA	5.5V/28mA	5V/15mA	5.5V/23mA
6V/21mA	7V/27mA	6V/15mA	7V/25mA
12V/20mA	14V/25mA	12V/15mA	14V/20mA
15V/24mA	16.5V/28mA	15V/15mA	16.5V/18mA
24V/17mA	26V/20mA	24V/15mA	26V/18mA
28V/16.5mA	30V/18mA	28V/15mA	30V/17mA
48V/15mA	50V/16mA	48V/9.5mA	50V/10mA
60V/9mA	65V/10mA	60V/7mA	65V/8mA
120VAC/3.5mA	130VAC/4mA	120VAC/3.5mA	130VAC/4mA

4

Lens	
-CR	Red
-CA	Amber
-CG	Green
-CB	Blue
-CW	Water Clear

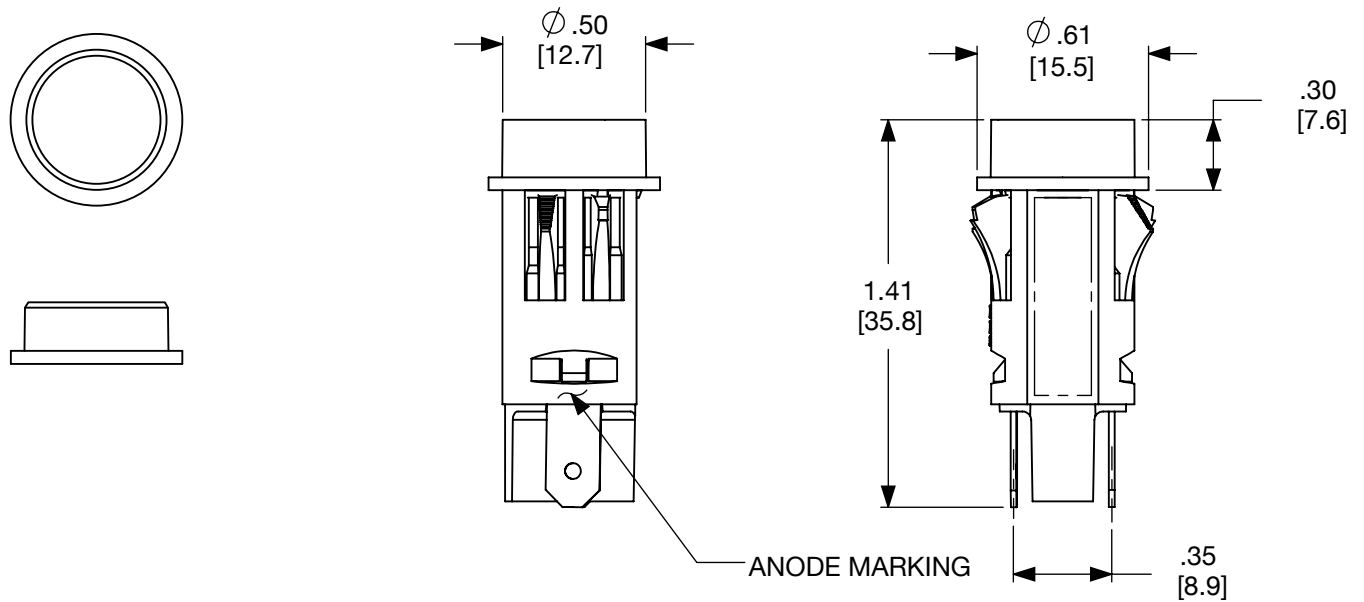| Standard Wire Leads	All dimensions are in inches (mm)
6.0" total length (nominal)/.50" stripped (nominal), red anode/black cathode, 18 AWG stranded UL1015 insulation. Contact factory for other lengths, gauges and colors.	Tolerances: .xx"(.x) ±.025"(.63) / .xxx"(.xx)±.010"(.25). Specifications are subject to change without notice.

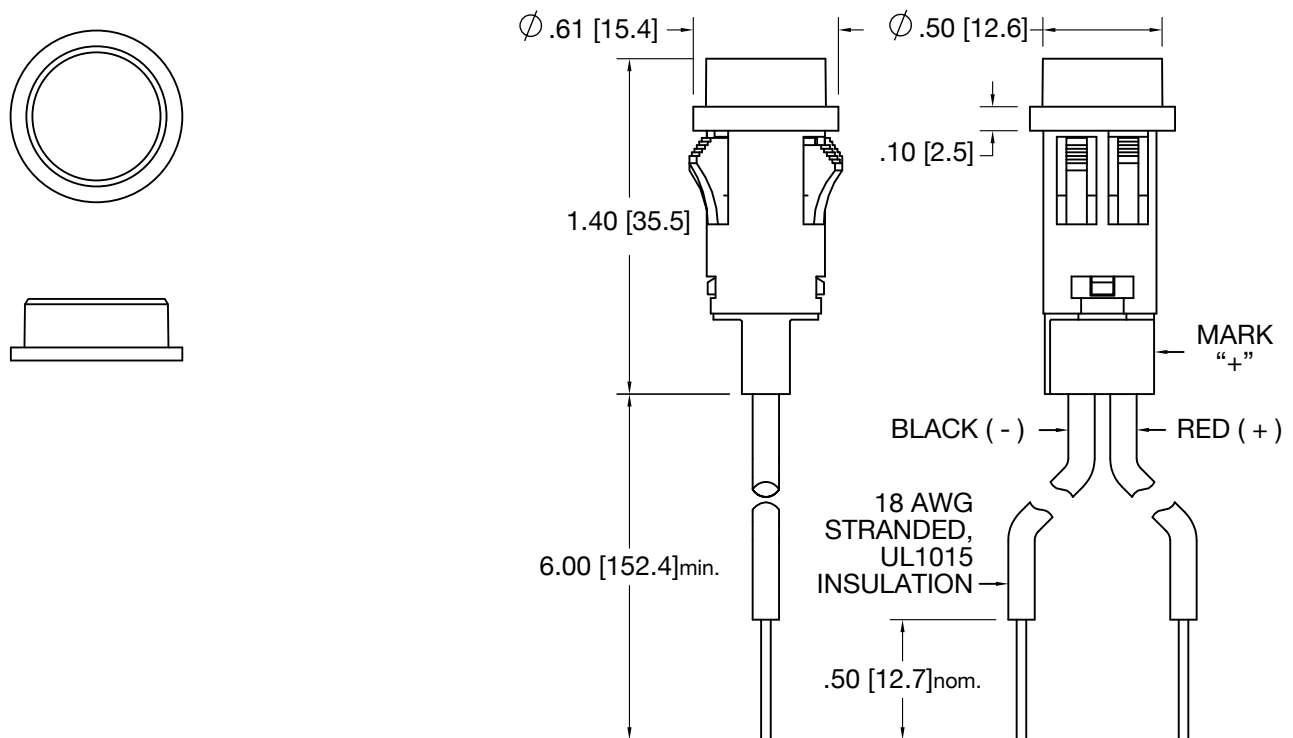[1] I_V = typical luminous intensity@ I_f = 20mA (Ta=25℃). I_V is measured without lenses.

[2] See Voltage/Current table for design specifications.

[3] Ta = 25℃. Voltages 5 through 60 are VDC. For AC operation, insert D after Voltage (e.g 24D), D indicates built-in rectifier; not required for 5VDC or 120VAC. DC operation not available for 120V.
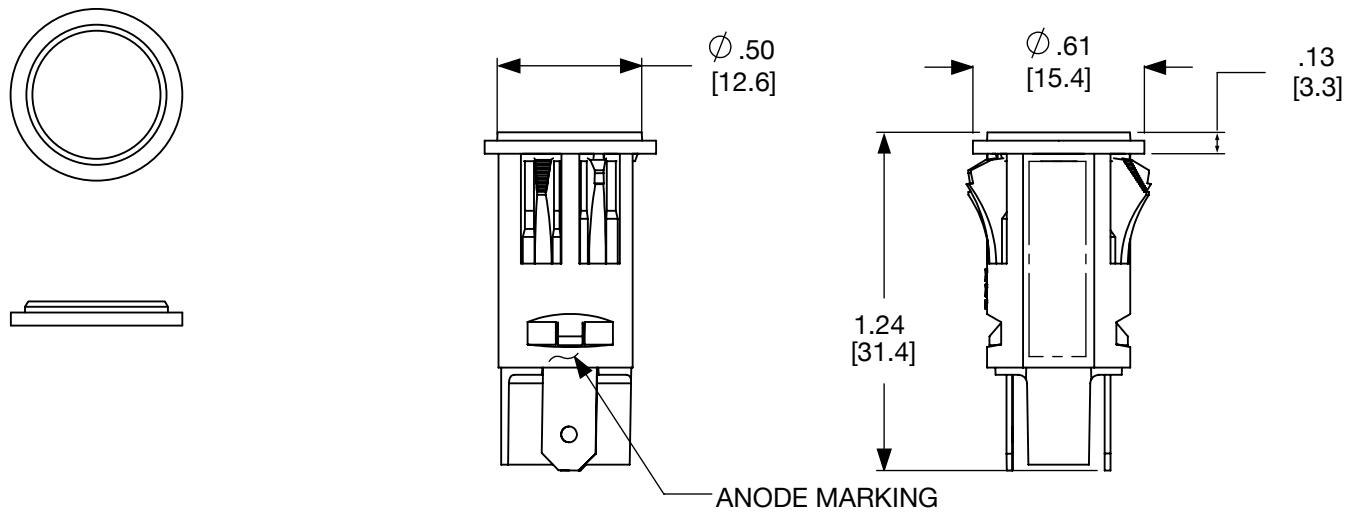
P81 Hi-Hat Lens (Tab Terminals)

Ø .50 [12.7]

Ø .61 [15.5]

.30 [7.6]

1.41 [35.8]

ANODE MARKING

.35 [8.9]

P81W Hi-Hat Lens (Wire Leads)

Ø .61 [15.4]

Ø .50 [12.6]

.10 [2.5]

1.40 [35.5]

MARK "+"

BLACK (-)

RED (+)

18 AWG STRANDED, UL1015 INSULATION

6.00 [152.4]min.

.50 [12.7]nom.

Dimensions in inches [mm]

Product Dimensions

P84 Flat Lens (Tab Terminals)

Ø .50 [12.6]

Ø .61 [15.4]

.13 [3.3]

1.24 [31.4]

ANODE MARKING

P84 Flat Lens (Wire Leads)

Ø .61 [15.4]

Ø .50 [12.6]

.10 [2.5]

1.23 [31.1]

MARK "+"

BLACK (-)

RED (+)

18 AWG STRANDED, UL1015 INSULATION

6.00 [152.4]min.

.50 [12.7]nom.

Dimensions in inches [mm]

Mounting Hole

0.500/0.505
[12.70/12.83]
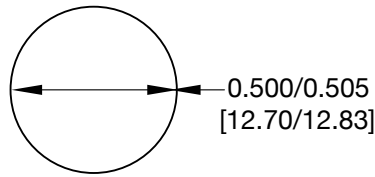
Standard Mounting Hole

.470/
.475

.500/
.505
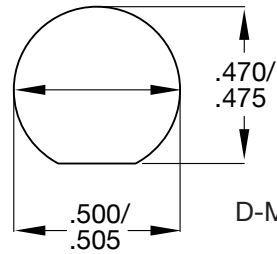
D-Mounting Hole

Dimensions in inches [mm]

Product Specifications

Materials	
Housing	Black Nylon UL94 V-2
Lens	Clear Polycarbonate Fresnel Lexan
Bezel	Pattern Black Nylon
Tab (P81 and P84)	Quick-connect tinned brass
Wire (P81W & P84W)	18AWG Red anode/Black cathode Stranded UL1015 insulation

Installation Specifications	
Mounting Hole	0.500" to 0.505" (12.70 to 12.83 mm)
D-Mounting Hole	0.470" to 0.475" (11.94 to 12.07 mm)
Panel Thickness	0.020" to 0.100" (0.51 to 2.54 mm)
Tab Terminals	0.187" (4.75mm) terminals
Wire Leads	18AWG 6" length/0.5" stripped

Temperature Specifications	
Operating Temperature	-30°C to +60°C -22°F to +185°F
Storage Temperature	-40°C to +100°C -40°F to +212°F

Parameter	LED color							Unit
	Red	Orange	Amber	Green	Blue	White	Warm-white	
TYP. Luminous intensity @ I_f=20mA	780	360	600	780	168	700	600	mcd
Reverse breakdown @ I_r=100uA @ I_r=50uA	5	5	5	5	5	5	5	V
Peak wavelength	629	611	592	520	465	-	-	nm
Dominant wavelength	623	605	590	525	470	-	-	nm
TYP. Color temperature	-	-	-	-	-	6500	3000	K

Compliances and Approvals

REACH COMPLIANCE

RoHS COMPLIANT

c UL us LISTED