MOMENTARY ACTION RING ILLUMINATED, VANDAL RESISTANT CASE & BUTTON

High Profile
Curved Button

The LP3-V is a momentary switch designed to provide attractive, lighted position indication for applications in harsh environments, where security and reliability are paramount. The series features both aluminum and stainless steel cases watertight to IP68S. Alternate action is available in the LP5-V series.

This high reliability switch offers the durability and ruggedness our customers have come to expect with the added benefit of illumination. They are ideal for marine, off-highway and industrial control applications that require an illuminated switch.

This switch offers positive tactile feedback and a variety of LED colors available in both flat and domed actuator bezel shapes.

Features:

- **Security (aluminum) or vandal resistant (stainless steel) case & button**
- **Ring illuminated**
- **Watertight to IP68S option**
- **Variety of button options and LED colors**
- **Drop in replacement to the P8-V series**
- **RoHS compliant**

Standard Characteristics/Ratings:

ELECTRICAL RATINGS:

Load	**Sea Level @ 28VDC or 115VAC, 60/400Hz**
Resistive	5A
Inductive	3A
Lamp	1A
Motor	3A
DWV	1000Vrms through switch contacts only
Logic Level	10mA @ 5VDC
Electrical Life:	25,000 cycles

LIGHTING:

Light Source Voltage (DC)	**Actual Voltage Nominal (DC)**	**Voltage Max (DC)**
2	2	2.6
6	7	8
12	13.5	14.5
24	28	28.6

Mechanical Life:	250,000 cycles @ ambient and +85°C 25,000 cycles @ -55°C
Seal:	IP64 or IP68S
Operating Temp Range:	-55°C to +85°C
Operating Force:	2.5 +/- 0.5 lb. or 5.0 +/- 1.0 lb.
Total Travel:	0.080 inches max
Overtravel:	0.010 inches min

MATERIALS:

Case:	Stainless steel (316) or anodized aluminum alloy
Button:	Thermoplastic
Center Cap:	Stainless steel (316) or anodized aluminum alloy
Terminals:	Standard silver plate with optional gold plate for logic level applications
Mounting Hardware:	Hex or knurl nut, lockwasher and panel gasket

LP3-V PART NUMBER CODE

LP3 – X X X X X X X X

Type

A. Aluminum
V. Stainless

Case Style

1. 5/8-24 & Hex Nut
2. 5/8-24 & Knurl Nut*
3. 5/8-24 W/D–Flat & Hex Nut
4. 5/8-24 W/D–Flat & Knurl Nut*
5. 3/4-20 & Hex Nut
6. 3/4-20 & Knurl Nut*
7. 3/4-20 W/D–Flat & Hex Nut
8. 3/4-20 W/D–Flat & Knurl Nut*

Circuit Rating

1. SPST N.O./Std.
2. SPST N.C./Std.
3. SPDT 2 Circuit/Std.
4. SPST N.O./Logic Level
5. SPST N.C./Logic Level
6. SPDT 2 Circuit/Logic Level

Light Source Type w/ Rev. Pol Protection**

A. 2V Red LED
B. 2V Green LED
C. 2V Amber LED
D. 6V Red LED
E. 6V Green LED
F. 6V Amber LED
G. 12V Red LED
H. 12V Green LED
J. 12V Amber LED
K. 24V Red LED
L. 24V Green LED
M. 24V Amber LED
N. 2V Blue LED
P. 6V Blue LED
Q. 12V Blue LED
R. 24V Blue LED
S. 2V Deep Green LED
T. 6V Deep Green LED
U. 12V Deep Green LED
V. 24V Deep Green LED

Seal Level

2. Dusttight
3. Watertight

Operating Force

2. 2.5 lbs.
5. 5.0 lbs.

Case/Center Cap Color

1. Silver
2. Black***

Button Profile

1. High Profile Flat Button
2. High Profile Curved Button
3. Low Profile Flat Button
4. Low Profile Curved Button
5. Flush Profile Flat Button

CASE STYLE		
DIMENSION	1 - 4	5 - 8
(BUTTON DIA.)	0.525	0.590
(THREAD)	5/8-24 UNEF-2A	3/4-20 UNEF-2A
FLAT	0.594	0.718

* Contact factory for Knurl Nut option

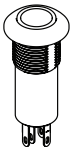
**2V LED's are intended for use with an external resistor. See appendix for complete voltage/ratings table. For additional LED lighting options, contact factory.

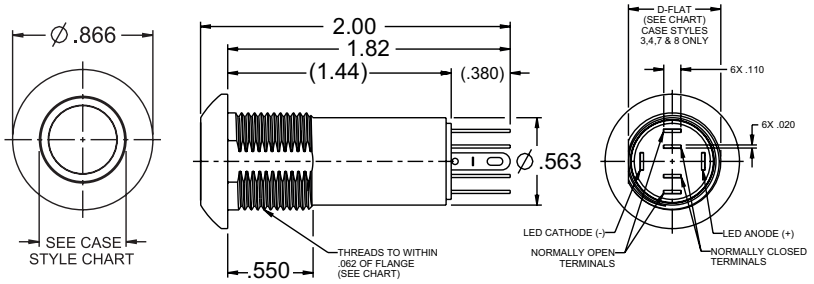
*** Only available on LP3-A styles.

ILLUMINATED VANDAL RESISTANT PUSHBUTTONS

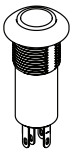
MOMENTARY ACTION RING ILLUMINATED, VANDAL RESISTANT CASE & BUTTON

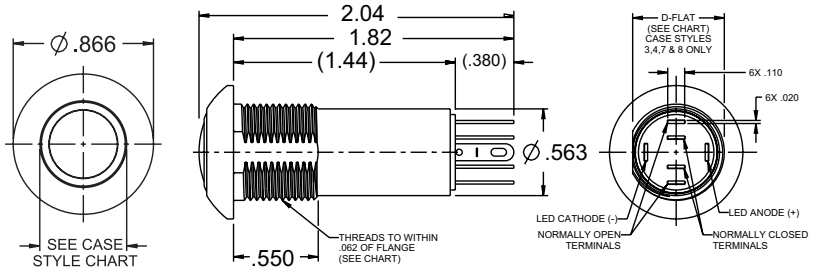
LP3-XXXXXXX1
High Profile Flat Button



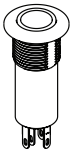


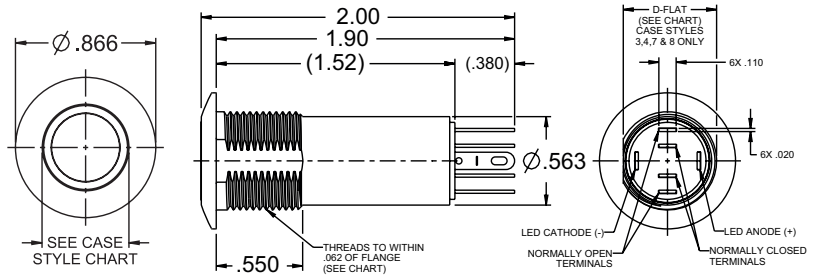
LP3-XXXXXXX2
High Profile Curved Button



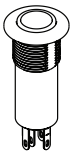


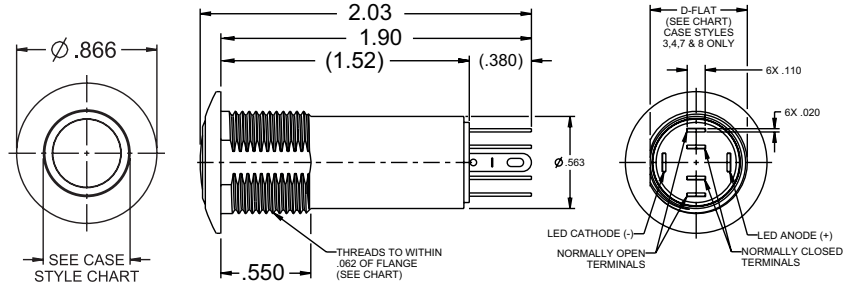
LP3-XXXXXXX3
Low Profile Flat Button



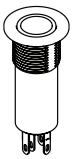


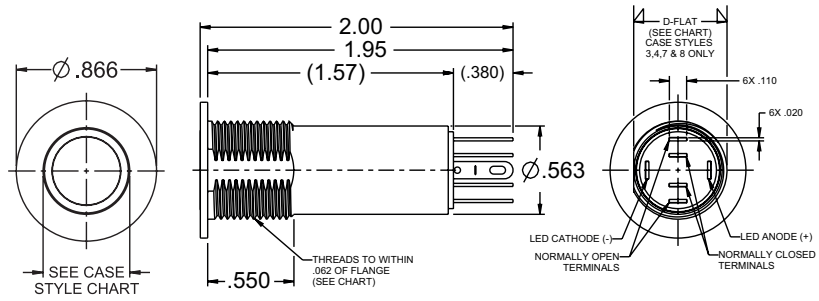
LP3-XXXXXXX4
Low Profile Curved Button

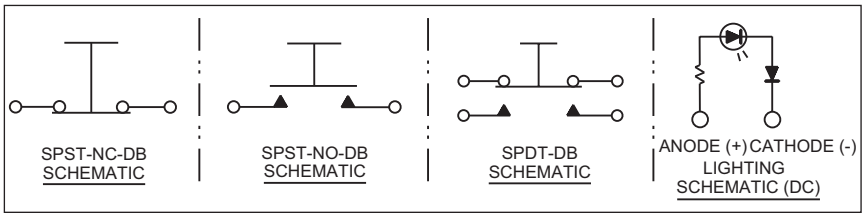




LP3-XXXXXXX5
Flush Profile Flat Button







Specifications Subject To Change Without Notice

LED VOLTAGE/CURRENT RATINGS TABLE

K1, K2, K3P and K4 LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE CATEGORY	LIGHT SOURCE COLOR	FORWARD CURRENT	TYPICAL FORWARD/ NOMINAL VOLTAGE	MAX. FORWARD VOLTAGE
6 VDC INCANDESCENT	WHITE	.2 AMPS	6 VDC	8 VDC
12 VDC INCANDESCENT	WHITE	.08 AMPS	12 VDC	14 VDC
24 VDC INCANDESCENT	WHITE	.04 AMPS	24 VDC	28 VDC
125 VAC NEON	AMBER	1.9 mA	125 VAC	125 VAC
250 VAC NEON	AMBER	1.9 mA	250 VAC	250 VAC
2 V LED PRODUCTS*	RED	20 mA	1.9 VDC	2.5 VDC
	GREEN	20 mA	2.15 VDC	2.5 VDC
	AMBER	20 mA	1.95 VDC	2.5 VDC
	BLUE	20 mA	3.5 VDC	4.0 VDC
6 V LED PRODUCTS	SEE CHART	20 mA	6 VDC	8 VDC
12 V LED PRODUCTS	SEE CHART	20 mA	12 VDC	14 VDC
24 V LED PRODUCTS	SEE CHART	20 mA	24 VDC	28 VDC

K3/K5 LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE CATEGORY	LIGHT SOURCE COLOR	FORWARD CURRENT	TYPICAL FORWARD/ NOMINAL VOLTAGE	MAX. FORWARD VOLTAGE
6 VDC INCANDESCENT	WHITE	.2 AMPS	6 VDC	8 VDC
12 VDC INCANDESCENT	WHITE	.08 AMPS	12 VDC	14 VDC
24 VDC INCANDESCENT	WHITE	.04 AMPS	24 VDC	28 VDC
125 VAC NEON	AMBER	1.9 mA	125 VAC	125 VAC
250 VAC NEON	AMBER	1.9 mA	250 VAC	250 VAC
2 V LED PRODUCTS*	RED	20 mA	2.0 VDC	2.5 VDC
	GREEN	20 mA	2.2 VDC	2.6 VDC
	AMBER	20 mA	2.1 VDC	2.5 VDC
6 V LED PRODUCTS	SEE CHART	20 mA	6 VDC	8 VDC
12 V LED PRODUCTS	SEE CHART	20 mA	12 VDC	14 VDC
24 V LED PRODUCTS	SEE CHART	20 mA	24 VDC	28 VDC

R2 LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE CATEGORY	LIGHT SOURCE COLOR	FORWARD CURRENT	TYPICAL FORWARD/ NOMINAL VOLTAGE	MAX. FORWARD VOLTAGE
2 V LED PRODUCTS*	RED	20 mA	2.0 VDC	2.5 VDC
	GREEN	20 mA	2.2 VDC	2.6 VDC
	AMBER	20 mA	2.1 VDC	2.5 VDC
6 V LED PRODUCTS	SEE CHART	20 mA	6 VDC	8 VDC
12 V LED PRODUCTS	SEE CHART	20 mA	12 VDC	14 VDC
24 V LED PRODUCTS	SEE CHART	20 mA	24 VDC	28 VDC

*Intended for use with external resistor. The "2 volt" switches are intended to have a resistor added in series into the lighting circuit by the customer. To determine the approximate value of the resistor, use the equation below:

$$\textbf{RESISTOR SIZE} = \frac{\textbf{POWER SUPPLY VOLTAGE - LED FORWARD VOLTAGE}}{\textbf{LED FORWARD CURRENT}}$$

Specifications Subject To Change Without Notice

LED VOLTAGE/CURRENT RATINGS TABLE

ILLUMINATED PUSHBUTTON SWITCH & INDICATOR LIGHTS VOLTAGE/CURRENT RATINGS TABLES

LP3, LP5 AND LPL SERIES
LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE CATEGORY	LED COLOR	FORWARD CURRENT	TYP. FORWARD VOLTAGE (DC)	MAX. FORWARD VOLTAGE DC
2V* PRODUCTS	RED	20 mA	1.9V	2.5V
	GREEN	20 mA	2.2V	2.6V
	AMBER			
	BLUE	20 mA	3.3V	4V
	DEEP GREEN			
6V PRODUCTS	ALL COLORS	20 mA	6V	8V
12V PRODUCTS	ALL COLORS	20 mA	12V	14.5V
24V PRODUCTS	ALL COLORS	20 mA	24 V	28.6 V

LP3S
LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE CATEGORY	LED COLOR	FORWARD CURRENT	TYP. FORWARD VOLTAGE	MAX. FORWARD VOLTAGE
2V* PRODUCTS	RED	20 mA	2 V	2.5 V
	GREEN			
	AMBER			
	BLUE	20 mA	3.2 V	4 V
	DEEP GREEN			
	WHITE			
12V PRODUCTS	ALL COLORS	20 mA	12V	14V
24V PRODUCTS	ALL COLORS	20 mA	24 V	28.6 V

LP7-D and LP9 SERIES
LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE CATEGORY	LED COLOR, WAVELENGTH (nm)	FORWARD CURRENT	TYP. FORWARD VOLTAGE	MAX. FORWARD VOLTAGE
2V LIGHTPIPE STYLE	RED (631)	20 mA	2V	2.4V
	GREEN (525)	20 mA	3.2V	3.6V
	AMBER (591)	20 mA	2.1V	2.4V
	BLUE (470)	20 mA	3.3V	3.8V
	WHITE	5 mA	2.9V	3.15V
2V, TRANSLUCENT FULLY ILLUMINATED STYLE	RED (630)	20 mA	1.95V	2.5V
	GREEN (525)	20 mA	3.3V	4.1V
	AMBER (601)	20 mA	2.1V	2.5V
	BLUE (465)	20 mA	3.3V	4V
	WHITE	5 mA	2.85V	3.1V
12V ALL PRODUCTS	ALL COLORS, SAME AS 2V	(20 mA)	12.0V	14.0V

LP9L SERIES
LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE CATEGORY	LED COLOR, WAVELENGTH (nm)	FORWARD CURRENT	TYP. FORWARD VOLTAGE	MAX. FORWARD VOLTAGE
2V PRODUCTS	RED (631)	20 mA	2V	2.4V
	GREEN (525)	20 mA	3.2V	3.6V
	AMBER (591)	20 mA	2.1V	2.4V
	BLUE (470)	20 mA	3.3V	3.8V
	WHITE	5 mA	2.9V	3.15V
12V PRODUCTS	ALL COLORS, SAME AS 2V	(20 mA)	12.0V	14.0V

*Intended for use with external resistor. The "2 volt" switches are intended to have a resistor added in series into the lighting circuit by the customer. To determine the approximate value of the resistor, use the equation below:

RESISTOR SIZE = <u>POWER SUPPLY VOLTAGE - LED FORWARD VOLTAGE</u>
LED FORWARD CURRENT

OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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AVIC JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).

FORSTAR®

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