SEALED, ILLUMINATED ROCKER SWITCHES

ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS

Sealed to IP68S and IP69K, the OTTO K3 rocker switch is a quality, precision switch designed to comply with standards established for appliance, marine (ignition protection) and off-road vehicles along with other demanding applications where rugged rocker switches are required.

K3 sealed rocker switches snap into industry-standard panel cutouts. Choose illuminated and printed legends, thru-panel drain option and switching compatibility from logic level to 20 amps.

The K3 offers a choice of LED, incandescent and neon illumination. Legends can be stamped onto a non-illuminated button, stamped onto an illuminated lens or laser etched into the lens and backlit.

Available in standard and logic level contact ratings, the K3 rockers will fit a wide range of applications. Expect a minimum of 25,000 cycles at a full rated load of 20 amps resistive or 15 amps inductive. 100,000 cycles mechanical. A full complement of switch operation is available including momentary and maintained action in 2 or 3-position switches in SPST, SPDT, SPTT, DPST and DPDT circuit arrangements.

OTTO can provide custom colors upon request. Value-added assemblies with wire leads are also available. Please consult the factory for assistance.

Features:

- Sealed watertight per IP68S and IP69K
- Snap-in panel mounting into industry standard panel cutout
- Optional panel seal gasket
- Thru-panel drain option
- LED, neon & incandescent lighting
- 0.250" Quick Connect terminals
- Optional one-piece connector
- **Optional terminal barriers**
- Logic level up to 20 amp switch
- **Configurable Single Pole Triple Throw (SPTT)** with external jumpers
- **RoHS** compliant





ELECTRICAL RATINGS:			
Load	Sea Level @ 12/28VDC	Sea Level @ 125VAC, 60Hz	
Resistive	20A	16A	
Inductive	15A	15A	
Lamp	5A	5A	
Motor	0.5HP @ 110VAC		
DWV	1050Vrms except acro	ss light terminals	
Logic Level	10mA @ 5VDC, max D.C. logic level ratings (void if logic level load(s) exceeded at any time)		
Electrical Life:	25,000 cycl	es	
LIGHTING:			
Light Source	Rating (see appendix for complete voltage/current ratings table)		
Incandescent	(VDC) 6V, 12V, 24V		
Neon	(VAC) 125V, 250V		
LED	(VDC) 2V, 6V, 12V, 24V		
Mechanical Life:	100,000 cycles		
Seal:	IP68S and IP69K		
Operating Temp Range:	-40°C to +85°C		
MATERIALS:			
Case:	Thermoplastic, black		
Button:	Thermoplastic		
Terminals/Contact:	Brass, silver alloy with	h silver plate, gold flash for logic leve	
Terminal Hardware:	K3 series recommend	ed Quick Connect terminals:	
Tellilliai Haluwale.	AMP 60253-2 for 12-16 AMP 42100-2 for 14-18		

SEALED, ILLUMINATED ROCKER SWITCHES

K3 Base Options B. Without Barriers or Pin

- A. With Keying Pin Only Standard Rating Silver Plate
- Standard Rating Silver Plate C. With Terminal Barriers Only
- Standard Rating Silver Plate D. With Keying Pin Only
- Logic Level Rating Gold Plate E. Without Barriers or Pin Logic Level Rating
- Gold Plate F. With Terminal Barriers Only Logic Level Rating
- Gold Plate G. With Keying Pin Only Standard Rating No Plate
- H. Without Barriers or Pin Standard Rating No Plate
- J. With Terminal Barriers Only Standard Rating No Plate

Case Style/Button Color

- A. Case With Drain Holes **Button Color: Black**
- B. Case Without Drain Holes **Button Color: Black**
- C. Case With Drain Holes Button Color: Red
- D. Case Without Drain Holes Button Color: Red E. Case With Drain Holes
- Button Color: White F. Case Without Drain Holes
- Button Color: White NOTE: Switch case is black for
- all options below: 1. Case With Drain Holes
- **Button Not Included**
- 2. Case Without Drain Holes **Button Not Included**

Switch Action/Circuit

Position

Circuit

K3 SERIES PART NUMBER CODE

XX

Position

	"A"	"B"	"C"	
1A.	3-4	NONE	0FF	SPST
2A.	3-4/8-9	NONE	0FF	DPST
1B.	3-4	NONE	3-2	SPDT
2B.	3-4/8-9	NONE	3-2/8-7	DPDT
1C.	(3-4)	NONE	0FF	SPST
2C.	(3-4)/(8-9)	NONE	0FF	DPST
1D.	(3-4)	NONE	3-2	SPDT
2D.	(3-4)/(8-9)	NONE	3-2/8-7	DPDT
1E.	(3-4)	0FF	(3-2)	SPDT
2E.	(3-4)/(8-9)	OFF	(3-2)/(8-7)	DPDT
1F.	3-4	0FF	3-2	SPDT
2F.	3-4/8-9	OFF	3-2/8-7	DPDT
1G.	(3-4)	OFF	3-2	SPDT
2G.	(3-4)/(8-9)	0FF	3-2/8-7	DPDT

Light Source Type*

S. 24V Green LED

T. 24V Amber LED

Light Source Type*	Light Ci	rcuit
A. No Illumination B. 6V Incandescent	Circuit	Terminal Connection
C. 12V Incandescent	A. None	None
D. 24V Incandescent	B. Dep. in "A"	1(-) & 4(+)
E. 125VAC Neon	C. Dep. in "C"	2(+) & 5(-)
F. 250VAC Neon	D. Ind. in "A"	1(-) & 6(+)
G. 2V Red LED	E. Ind. in "C"	5(-) & 10(+
H. 2V Green LED	F. Dep. in "A"	1(-) & 4(+)
J. 2V Amber LED	Dep. in "C"	2(+) & 5(-)
K. 6V Red LED	G. Dep. in "A"	1(-) & 4(+)
L. 6V Green LED	Ind. in "C"	5(-) & 10(+
M.6V Amber LED	H. Ind. in "A"	1(-) & 6(+)
N. 12V Red LED	Dep. in "C"	2(+) & 5(-)
P. 12V Green LED	J. Ind. in "A"	1(-) & 6(+)
Q. 12V Amber LED	Ind. in "C"	5(-) & 10(+
R. 24V Red LED		

NOTE: Polarity only applies to LED circuits

Part Number Code Continued Below

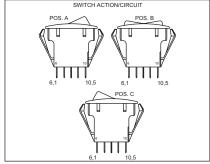
X

Special Circuits

	Position	Position	Position	Special
	"A"	"B"	"C"	Circuits
1H.	3-4/8-9	8-9	OFF	ON/ON/OFF
1J.	3-4/8-9	8-9	NONE	ON/ON/NONE
1K.	(3-4)/(8-9)	8-9	OFF	(ON)/ON/OFF
1L	(3-4)/(8-9)	8-9	NONE	(ON)/ON/NONE
1M.	3-4/8-9	3-2/8-9	3-2/8-7	ON/ON/ON
1N.	(3-4)/(8-9)	3-2/8-9	3-2/8-7	(ON)/ON/ON
1P.	(3-4)/(8-9)	3-2/8-9	(3-2)/(8-7)	(ON)/ON/(ON)
2R.	3-4/8-9	OFF/8-9	OFF/OFF	ON/OFF/OFF
				ON/ON/OFF
2S.	(3-4)/8-9	OFF/8-9	OFF/OFF	(ON)/OFF/OFF
				ON/ON/OFF

NOTE: () denotes momentary action.

XX

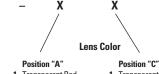


*See appendix for complete voltage/current ratings table.

K3 PART NUMBER CODE - CONTINUED FROM ABOVE

Position "C"

ZZ. No Legend



NOTE: It is not recommended to use green LEDs with translucent white lenses. This will reduce light intensity.

Use clear lenses with green LEDs for

① Recommended for neon lamps.

② Special Order: Ultra bright green LED to be used with translucent

3 Legend colors "B" & "D" are only available on lens color "Z".

1. Transparent Red

- 2. Transparent Green
- 3. Transparent Amber ①

maximum light intensity.

white lenses.

- 4. Clear 1 5. Translucent White ②
- Z. No Lens 3

1. Transparent Red

- 2. Transparent Green
- 3. Transparent Amber ①
- 4. Clear 1
- 5. Translucent White ②
- Z. No Lens 3

NOTE: For all other legend options, refer to the legend table in the appendix, find the two digit code and enter the code in the appropriate position(s).

Legend Style

XX

Position "A"

ZZ. No Legend

④ For legend color "B" and "D", please use button color "A" & "B" and lens color "Z" for each position.

LATCHES (OPTIONAL)

Legend Color

Position "A"

1. Red

2. Black

9. White

B. Backlight/

D. Backlight/

Z. No Legend

Deadfront 4

Daylight White 4



Legend Orientation

"C"

Position Position "A"

1. Std.

- Position "C" 1. Red
- 2. Black 9. White
- B. Backlight/
- Daylight White 4 D. Backlight/
- Deadfront 4
- Z. No Legend



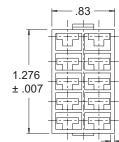


STOP HERE for

unlighted switches without legends.

Example: K3AAIFAA

Plugs (PP) section.



-.046 TYP.

STOP HERE for

lighted switches

without legends.

Example: K3AAIFNH-44

Recommended Quick Connect Terminals: AMP 60253-2 for 12-16 AWG AMP 42100-2 for 14-18 AWG

1.00

K3 Connector P/N C801775-2A Without Latches P/N C801775-2B With Latches

Panel Seal Gasket P/N C807037

Order separately for use with switches without drain holes.

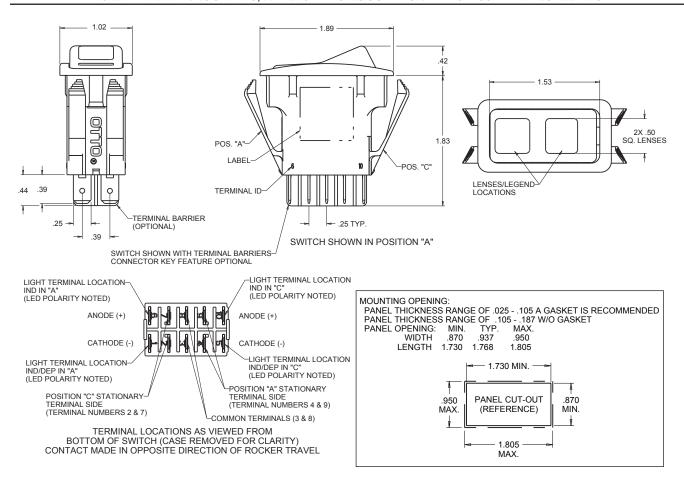
Panel Plug

See Panel Plug (PP) page.

K3 panel plugs available as shown in Panel

SEALED, ILLUMINATED ROCKER SWITCHES

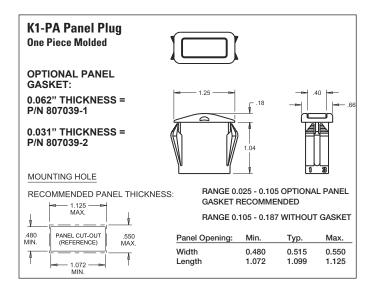
SNAP-IN PANEL MOUNTING, ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS

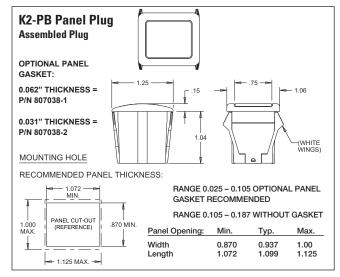


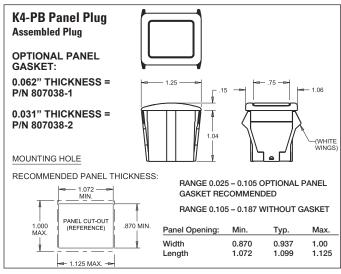
POS "A" 0 0 4 30 0 2	FOS "B" POS "B" 2 9 9	POS "C" 0 4	K32A·	K328 4 30 0 2	K32C 4 3○ ○ 0 9	K32D· 30
80-07	8 0 7 SPECIAL CIRCUIT - ON-ON-ON SCHEMATIC	80-0 1	DPST-ON-NONE-OFF SCHEMATIC	DPDT-ON-NONE-ON SCHEMATIC	DPST-(ON)-NONE-OFF SCHEMATIC	DPDT - (ON) - NONE - ON SCHEMATIC
GENERAL SCHEMATIC INFORM O-O INDICATES MAINTA INDICATES MOMENT (AUTOMATIC RETUR	IN ACTION (FIXED POSITION)	x32E 4 3○	N32F 4 3○	K326 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓	K328NBZ	K328NC-Z. 30
FOR OTHER LIGHTING SCHEI FOLLOWING SYMBOLS: INCANDESCENT (RE NEON (REPLACE L	EPLACE RESISTOR & LED)	8	8 0 9 8 0 7 DPDT - ON - OFF - ON SCHEMATIC	8 O 7 DPDT - (ON)-OFF-ON SCHEMATIC	DPDT-ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A"	9 9 7 7 DPDT-ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "C"
	8328NDZ 1	X328NE-Z. 4 3 2 5 6 6 7 6 7 6 7 7 7 7	K328NF 1	#32BNG 1	N328NH 10	K328NJ 1

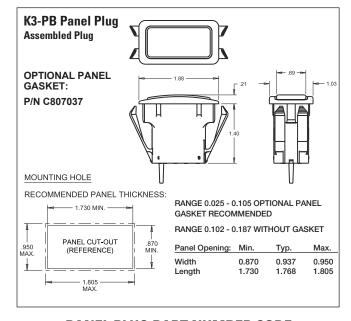
PANEL PLUGS FOR ROCKER & R2 SERIES

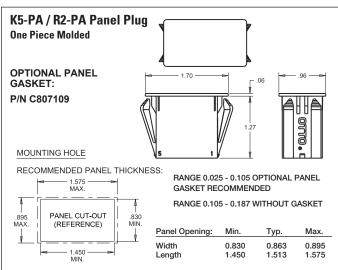
K1 THROUGH K5 & R2 PANEL PLUGS

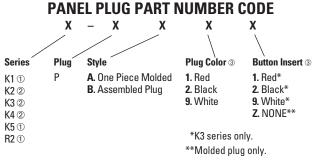












- ① Available in Style A only.
- 2 Available in Style B only.
- 3 Additional colors available. Contact factory.

LED VOLTAGE/CURRENT RATINGS TABLE

ROCKER AND ROTARY SWITCH VOLTAGE/CURRENT RATINGS TABLES

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

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

K3/K5 LIGHTING VOLTAGE/CURRENT COMPONENTS RATINGS

LIGHT SOURCE VOLTAGE	LIGHT SOURCE	FORWARD	TYPICAL FORWARD/	MAX. FORWARD
CATEGORY	COLOR	CURRENT	NOMINAL VOLTAGE	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
	RED	20 mA	2.0 VDC	2.5 VDC
2 V LED PRODUCTS*	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	LIGHT SOURCE	FORWARD	TYPICAL FORWARD/	MAX. FORWARD
CATEGORY	COLOR	CURRENT	NOMINAL VOLTAGE	VOLTAGE
	RED	20 mA	2.0 VDC	2.5 VDC
2 V LED PRODUCTS*	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

RESISTOR SIZE = POWER SUPPLY VOLTAGE - LED FORWARD VOLTAGE LED FORWARD CURRENT

^{*}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:

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	
	RED	20 mA	1.9V	2.5V	
2V*	GREEN	20 mA	2.2V	2.6V	
PRODUCTS	AMBER	20 IIIA	2.20		
	BLUE	20 mA	3.3V	4V	
	DEEP GREEN	2011//	0.01	7.0	
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
	RED			
	GREEN	20 mA	2 V	2.5 V
2V*	AMBER			
PRODUCTS	BLUE		3.2 V	4 V
	DEEP GREEN	20 mA		
	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) GREEN (525) AMBER (591) BLUE (470) WHITE	20 mA 20 mA 20 mA 20 mA 5 mA	2V 3.2V 2.1V 3.3V 2.9V	2.4V 3.6V 2.4V 3.8V 3.15V
2V, TRANSLUCENT FULLY ILLUMINATED STYLE	RED (630) GREEN (525) AMBER (601) BLUE (465) WHITE	20 mA 20 mA 20 mA 20 mA 5 mA	1.95V 3.3V 2.1V 3.3V 2.85V	2.5V 4.1V 2.5V 4V 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		20 mA 20 mA 20 mA 20 mA 5 mA	2V 3.2V 2.1V 3.3V 2.9V	2.4V 3.6V 2.4V 3.8V 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 = POWER SUPPLY VOLTAGE - LED FORWARD VOLTAGE LED FORWARD CURRENT