## 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**
- Low level up to 20 amp switch
- **Configurable Single Pole Triple Throw (SPTT)** with external jumpers
- **RoHS/WEEE/Reach compliant**



ELECTRICAL RATINGS:				
Load	Sea Level	Sea Level		
	@ 12/28VDC	@ 125VAC, 60Hz		
Resistive	20A 16A			
Inductive	15A 15A			
Lamp	5A 5A			
Motor	0.5HP @ 110VAC			
DWV	1050Vrms except across light terminals			
Logic Level	10-100mA @ 3-28V, max D.C. logic level ratings (void if logic level load(s) exceeded at any time)			
Electrical Life:	25,000 cycles			
LIGHTING:				
Light Source	Rating (see appendix table)	for complete voltage/current ratings		
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 silver plate, gold flash for logic level			
	K3 series recommended Quick Connect terminals: AMP 60253-2 for 12-16 AWG AMP 42100-2 for 14-18 AWG			
Terminal Hardware:	7 00200 2 .0. 12 .0	7.11.0		

**Part Number Code Continued Below** 

Light Circuit

X

# **K3**

#### **Base Options**

- A. With Keying Pin Only Standard Rating Silver Plate
- B. Without Barriers or Pin 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

X

- 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

**Special** 

Circuits

ON/ON/OFF

ON/ON/NONE

(ON)/ON/OFF

ON/ON/ON

(ON)/ON/ON

(ON)/ON/(ON)

ON/OFF/OFF

ON/ON/OFF

(ON)/OFF/OFF

ON/ON/OFF

(ON)/ON/NONE

**K3 SERIES PART NUMBER CODE** 

XX

Position

	i ooition	i obition	i ooition	Onoun
	"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	OFF	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

**Special Circuits** 

**Position** 

"C"

0FF

OFF

NONE

NONE

3-2/8-7

3-2/8-7

(3-2)/(8-7)

OFF/OFF

OFF/OFF

Position

"B"

8-9

8-9

8-9

8-9

3-2/8-9

3-2/8-9

3-2/8-9

OFF/8-9

OFF/8-9

#### Light Source Type<sup>4</sup>

Light Source Type	Light Gircuit			
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				

S. 24V Green LED NOTE: Polarity only applies to T. 24V Amber LED LED circuits

# SWITCH ACTION/CIRCUIT ш

NOTE: () denotes momentary action.

**Position** 

"A

3-4/8-9

3-4/8-9

3-4/8-9

3-4/8-9

(3-4)/8-9

(3-4)/(8-9)

(3-4)/(8-9)

(3-4)/(8-9)

(3-4)/(8-9)

1J.

1K.

1L

1M.

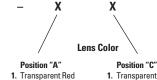
1N.

1P.

2R.

**2S**.

#### **K3 PART NUMBER CODE - CONTINUED FROM ABOVE**



- 2. Transparent Green
- 3. Transparent Amber ①
- 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: It is not recommended to use green LEDs with translucent white lenses. This will reduce light intensity. Use clear lenses with green LEDs for maximum light intensity.

- Recommended for neon lamps.
- ② Special Order: Ultra bright green LED to be used with translucent white lenses.
- 3 Legend colors "B" & "D" are only available on lens color "Z".

.83 without legends. 1.276 ±.007

XX XX Legend Style Position "C" Position "A" Position "A" ZZ. No Legend ZZ. No Legend **1.** Red

NOTE: For all other legend options, refer to the legend table on page 183 or in the appendix, find the two digit code and enter the code in the appropriate position(s).

-.046 TYP.

STOP HERE for lighted switches without legends.

Example: K3AAIFNH-44



- 2. Black 9. White
- B. Backlight/ Daylight White 4
- D. Backlight/ Deadfront 4
- Z. No Legend
- For legend color "B" and "D", please use button color "A" & "B" and lens color "Z" for each position.



#### **Position Position** "A" "C"

 $\triangleright$ 

- 2. Black 9. White

1. Red

Position "C"

- B. Backlight/ Daylight White 4
- D. Backlight/ Deadfront 4
- Z. No Legend



1. Std.

**2.** 90°

A



റ

STOP HERE for unlighted switches

Example: K3AAIFAA

1.00 LATCHES (OPTIONAL)

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

#### **K3 Connector** P/N 801775-2A Without Latches P/N 801775-2B With Latches

#### **Panel Seal Gasket** P/N 807037

Order separately for use with switches without drain holes.

#### **Panel Plug**

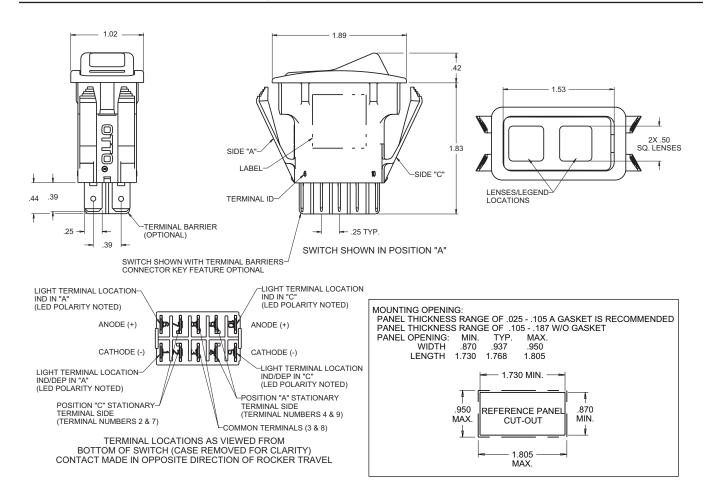
See Panel Plug (PP) page 188.

• K3 panel plugs available as shown on page 188.

<sup>\*</sup>See appendix for complete voltage/current ratings table.

### SEALED, ILLUMINATED ROCKER SWITCHES

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



R3_IM POS "A" POS "B"  4 30 2 2 2 8 9 8 0 7 SPECIAL CIRCUIT - ON-ON-SCHEMATIC	POS *C*  0 4  30 0 2  0 0 9  80 0 7	80—0 9  BO—0 PST-ON-NONE-OFF SCHEMATIC	8328 4 30	80 9  BODEST - (ON) - NONE-OFF SCHEMATIC	832D 4 30
GENERAL SCHEMATIC INFORMATION  OINDICATES MAINTAIN ACTION (FIXED POSITION)  OINDICATES MOMENTARY ACTION (AUTOMATIC RETURN POSITION)  FOR OTHER LIGHTING SCHEMATICS REPLACE FOLLOWING SYMBOLS:  OINCANDESCENT (REPLACE RESISTOR & LED)  NEON (REPLACE LED)	K32E  4 30	M32F 4  3	8326 4 3○	K32BNBZ  1	K328NC-Z.  30
K3ZBND·.Z  IO O 6  4  30 0 2  8 0 7  DPDT-ON-NONE-ON SCHEMATIC W/INDEPENDENT LED IN "A"	8328NE-Z.  4 3 2 5 0 10 9 8 7 DPDT-ON-NONE-ON SCHEMATIC W/INDEPENDENT LED IN "C"	K328NF  1	#32BNG  1	N328NH  10	6 4 3 0 2 5 0 0 10 9 8 0 7 7 DPDT-ON-NONE-ON SCHEMATIC W/INDEPENDENT LED IN "A" 8 "C"