

# SEALED, ILLUMINATED ROCKER SWITCHES

K1/K2  
SNAP-IN  
ROCKERS

LOW COST, SNAP-IN ROCKER FOR WET & DUSTY ENVIRONMENTS

The K series rockers are rugged, high performance sealed switches designed for use under severe conditions found in marine, appliance, heavy equipment and industrial control applications. Sealed to IP68S with an optional panel gasket available.

The K1 series is offered in single pole configuration while the K2 series is available in single and double pole configurations. Both series offer illuminated models. Illumination can be independent or dependent of the switch position or a combination of both. A choice of red, green, clear or amber colored lenses are offered in illuminated models. Illumination options include incandescent, LED or neon light sources.

Mounting is simple and quick; snaps into panel from the front. The OTTO snap-in design supports a variety of panel thicknesses with just one cutout size specified.

A choice of models are offered to handle power levels to 16 amps, 1/2 HP and low level electronic switching applications.

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

## Features:

- Withstands direct water spray
- Watertight to IP68S
- Fits industry standard panel openings for drop-in replacement of panel sealed & unsealed switches
- Snap-in feature accommodates a wide range of panel cutouts
- Switches up to 16 amps
- UV & solvent resistant
- Withstands extreme shock & vibration
- Custom legends available
- 2 & 3-position, momentary & maintained action
- Incandescent, LED & neon illumination with independent & dependent light source options
- UL recognized & CSA certified
- Ignition protected
- RoHS/WEEE/Reach compliant



K1 Series  
Single Pole



K2 Series  
Single & Double Pole



### Standard Characteristics/Ratings:

#### ELECTRICAL RATINGS:

| Load      | Sea Level @ 28VDC<br>or 125/250VAC, 60Hz | Cycles |
|-----------|------------------------------------------|--------|
| Resistive | 16A                                      | 25,000 |
| Resistive | 10A                                      | 50,000 |
| Inductive | 10A                                      | 25,000 |
| Lamp      | 5A                                       | 25,000 |
| Motor     | 0.5HP                                    | 25,000 |
| DWV       | 1050Vrms except across light terminals   |        |
| Low Level | 10mA @ 30mV                              |        |

Electrical Life: See Rating Chart

#### LIGHTING:

| Light Source | Rating                 |
|--------------|------------------------|
| Incandescent | (VDC) 6V, 12V, 24V     |
| Neon         | (VAC) 125V, 250V       |
| LED          | (VDC) 2V, 6V, 12V, 24V |

Mechanical Life: 100,000 cycles

Seal: IP68S

Operating Temp Range: -30°C to +85°C

#### MATERIALS:

|                    |                                                                                                                                                                |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Case:              | Thermoplastic                                                                                                                                                  |
| Button:            | Thermoplastic                                                                                                                                                  |
| Base:              | Thermoplastic                                                                                                                                                  |
| Terminals/Contact: | Brass, silver alloy with silver plate, gold flash for low level                                                                                                |
| Terminal Hardware: | Screws and lockwashers provided when applicable<br>K1/K2 series recommended Quick Connect terminals:<br>AMP 60253-2 for 12-16 AWG<br>AMP 42100-2 for 14-18 AWG |
| Mounting Hardware: | None provided                                                                                                                                                  |

LOW COST, SNAP-IN ROCKER FOR WET & DUSTY ENVIRONMENTS

## K1 PART NUMBER CODE

K1 -

X

X

X

Part Number Code Continued Below

X

### Terminal Style/ Switch Rating

- A. Q.C./Std.
- B. Screw/Std.
- C. Solder/Std.
- D. Q.C./Low Level
- E. Screw/Low Level
- F. Solder/Low Level
- G. PC Pin/Std.
- H. PC Pin/Low Level

### Actuator Color/Style

- A. Red/Rocker
- B. Black/Rocker
- C. White/Rocker
- D. Red/Paddle
- E. Black/Paddle
- F. White/Paddle
- G. Red/Rocker Pinned
- H. Black/Rocker Pinned
- J. White/Rocker Pinned
- K. Red/Short Paddle Pinned
- L. Black/Short Paddle Pinned
- M. White/Short Paddle Pinned
- N. Red/Standard Paddle Pinned
- P. Black/Standard Paddle Pinned
- R. White/Standard Paddle Pinned
- T. Red/Short Paddle
- U. Black/Short Paddle
- V. White/Short Paddle

### Switch Action/Circuit

|    | Position<br>"A" | Position<br>"B" | Position<br>"C" | Circuit |
|----|-----------------|-----------------|-----------------|---------|
| A. | 1-C             | NONE            | OFF             | SPST    |
| B. | 1-C             | NONE            | 2-C             | SPDT    |
| C. | (1-C)           | NONE            | OFF             | SPST    |
| D. | (1-C)           | NONE            | 2-C             | SPDT    |
| E. | (1-C)           | OFF             | (2-C)           | SPDT    |
| F. | 1-C             | OFF             | 2-C             | SPDT    |
| G. | (1-C)           | OFF             | 2-C             | SPDT    |
| H. | OFF             | NONE            | 2-C             | SPST    |

NOTE: ( ) denotes momentary action.



### Light Type

- A. No Light
- B. 6V Incandescent
- C. 12V Incandescent
- D. 24V Incandescent
- E. 125VAC Neon
- F. 250VAC Neon
- G. 2V Red LED
- H. 2V Green LED
- J. 2V Amber LED
- K. 6V Red LED
- L. 6V Green LED
- M. 6V Amber LED
- N. 12V Red LED
- P. 12V Green LED
- Q. 12V Amber LED
- R. 24V Red LED
- S. 24V Green LED
- T. 24V Amber LED

## K1 PART NUMBER CODE CONTINUED FROM ABOVE

K1 Continued

X

X

X

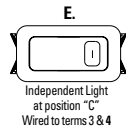
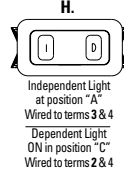
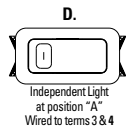
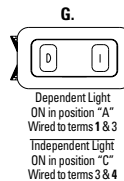
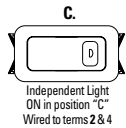
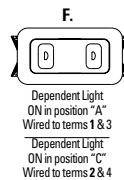
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### Lens Color

- | Position "A" | Position "C" |
|--------------|--------------|
| A. No Lens   | A. No Lens   |
| B. Red       | B. Red       |
| C. Green     | C. Green     |
| D. Amber     | D. Amber     |
| E. Clear     | E. Clear     |

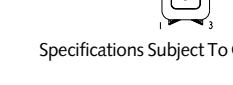
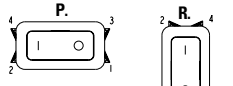
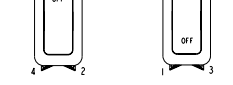
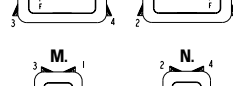
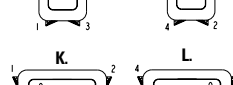
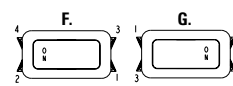
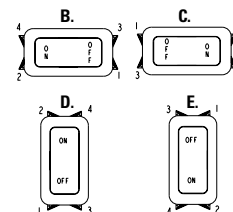
### Light/Circuit Location

A. No Light



### Legend & Orientation

A. None



### NOTES:

- No momentary switches with dependent lights.
- Neon lamps only to be coded with clear or amber lenses.
- LED lenses must be clear or same color as LED.
- No dependent light in OFF position.
- All legends printed on actuators without lens(es) will be white except actuator codes C, F, J, M & R.
- All legends printed on lenses will be white except on clear lens(es) will be black.

D = Dependent Light  
I = Independent Light

### NOTES:

- LED anode (+) terminal number shown in **bold**.
- Light on OFF side must be independent.
- Contact factory for multiple light types in the same switch.

• K1 panel plugs available as shown on page 160.

## ROCKER SWITCHES



Diagram illustrating the dimensions for the Reference Panel Cut-Out:

- Top width: 1.125 MAX.
- Right height: .550 MAX.
- Bottom width: 1.072 MIN.
- Left height: .480 MIN.

Technical drawing of the 1000 Series Cable Mounting Bracket showing top and side views with dimensions.

**Top View Dimensions:**

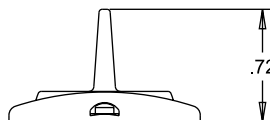
- Overall width: 1.16 TYP.
- Distance between mounting holes: 2X .63
- Distance from side edge to mounting hole: 2X .32
- Distance from front edge to mounting hole: .16
- Distance from front edge to center of mounting hole: .32

**Side View Dimensions:**

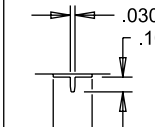
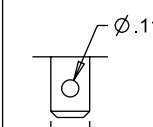
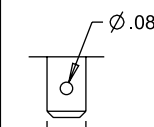
- Overall height: 1.16 TYP.
- Distance from top edge to mounting hole: .32
- Distance from bottom edge to mounting hole: .32

**RECOMMENDED HOLE SIZE  $\varnothing .040$**

Technical drawing of a propeller. A vertical dimension line on the right indicates a height of .46 from the base to the top of the propeller.



#6-32 THD



## SNAP-IN PANEL MOUNTING

## Standard Legends Per SAE Specifications

| STANDARD LEGENDS PER SAE SPECIFICATIONS |                                                                                       |                         |    |                                                                                       |                                  |
|-----------------------------------------|---------------------------------------------------------------------------------------|-------------------------|----|---------------------------------------------------------------------------------------|----------------------------------|
| A1                                      |      | ANCHOR                  | K2 |      | UNLOCK                           |
| B1                                      |      | BATTERY                 | L1 |      | LIGHT                            |
| B2                                      |      | ELECTRIC POWER          | L2 |      | MASTER LIGHTING SWITCH           |
| C1                                      |      | AC/COOLING SYSTEMS      | L3 |      | HEADLIGHTS                       |
| C2                                      |      | DEHUMIDIFIER            | L4 |      | HEADLIGHTS-LOW /<br>DIPPED BEAM  |
| C3                                      |      | HEATER/INTERIOR HEATING | L5 |      | HEADLIGHTS-HIGH /<br>UPPER BEAM  |
| D1                                      |      | WINDSHIELD DEFROSTER    | L6 |      | PARKING LIGHT                    |
| D2                                      |      | REAR WINDOW DEFROSTER   | L7 |      | WORK LAMP                        |
| D3                                      |      | MIRROR DEFROSTER        | L8 |      | WORK LAMP                        |
| E1                                      |      | ENGINE/START            | L9 |      | INTERIOR DOME LIGHT              |
| E2                                      |     | ENGINE/STOP             | M1 |     | BEACON                           |
| E3                                      |    | ON/START                | M2 |    | HAZARD/POSITION LIGHTS           |
| E4                                      |    | OFF/STOP                | M3 |    | CLEARANCE LIGHTS                 |
| E5                                      | ON                                                                                    | ON                      | M4 |    | SIDE MARKER LIGHT                |
| E6                                      | OFF                                                                                   | OFF                     | M5 |    | RUNNING LIGHTS<br>(UNDER POWER)  |
| E7                                      |    | ENGINE ELECTRIC PREHEAT | M6 |    | ANCHOR LIGHT                     |
| E8                                      |    | ENGINE-GAS INJECTION    | M7 |    | RUNNING/ANCHOR LIGHTS            |
| F1                                      |    | FRONT FOG LIGHTS        | M8 |    | SEARCH LIGHT                     |
| F2                                      |    | REAR FOG LIGHTS         | M9 |    | LEFT TURN SIGNAL                 |
| G1                                      |    | FUEL                    | MA |    | RIGHT TURN SIGNAL                |
| H1                                      |    | HORN                    | P1 |    | BILGE PUMP #1                    |
| H2                                      |    | HORN REAR               | P2 |    | BILGE PUMP #2                    |
| K1                                      |    | LOCK                    | P3 |    | BILGE PUMP #3                    |
|                                         |                                                                                       |                         | P4 |    | BILGE PUMP                       |
| P5                                      |    | BILGE BLOWER            | R1 |    | LIFT                             |
| R2                                      |    | LOWER                   | R3 |    | UP                               |
| R4                                      |    | DOWN                    | R5 |    | RIGHT                            |
| R6                                      |    | LEFT                    | R7 | FWD                                                                                   | FORWARD                          |
| R8                                      | REV                                                                                   | REVERSE                 | S1 |    | RADIO                            |
| S2                                      |   | MUTE                    | T1 |  | FAST                             |
| T2                                      |  | SLOW                    | T3 |  | TRIM TAB /<br>TRIMMING OPERATION |
| T4                                      |  | TRANSMISSION            | V1 |  | VENTILATING / AC FAN             |
| W1                                      |  | WINDSHIELD WIPER        | W2 |  | WINDSHIELD-WASHER                |
| W3                                      |  | WINDSHIELD-WASHER/WIPER | W4 |  | REAR WINDOW WIPER                |
| W5                                      |  | REAR WINDOW-WASHER      | W6 |  | REAR WINDOW-WASHER/WIPER         |
| ZZ                                      |                                                                                       | NO LEGEND               |    |                                                                                       |                                  |

For legends not shown, please consult an OTTO representative.



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

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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