

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.



K1 Series
Single Pole



K2 Series
Single & Double Pole



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

Standard Characteristics/Ratings:

ELECTRICAL RATINGS:

| Load | Sea Level @ 28VDC 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 K1/K2 series recommended Quick Connect terminals: AMP 60253-2 for 12-16 AWG AMP 42100-2 for 14-18 AWG |
| Mounting Hardware: | None provided |

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K1 PART NUMBER CODE

K1 - **X** **X** **X** **X** **X** **Part Number Code Continued Below**

| <p>Terminal Style/ Switch Rating</p> <p>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</p> | <p>Actuator Color/Style</p> <p>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</p> | <p>Switch Action/Circuit</p> <table border="1"> <thead> <tr> <th></th> <th>Position "A"</th> <th>Position "B"</th> <th>Position "C"</th> <th>Circuit</th> </tr> </thead> <tbody> <tr> <td>A.</td> <td>1-C</td> <td>NONE</td> <td>OFF</td> <td>SPST</td> </tr> <tr> <td>B.</td> <td>1-C</td> <td>NONE</td> <td>2-C</td> <td>SPDT</td> </tr> <tr> <td>C.</td> <td>(1-C)</td> <td>NONE</td> <td>OFF</td> <td>SPST</td> </tr> <tr> <td>D.</td> <td>(1-C)</td> <td>NONE</td> <td>2-C</td> <td>SPDT</td> </tr> <tr> <td>E.</td> <td>(1-C)</td> <td>OFF</td> <td>(2-C)</td> <td>SPDT</td> </tr> <tr> <td>F.</td> <td>1-C</td> <td>OFF</td> <td>2-C</td> <td>SPDT</td> </tr> <tr> <td>G.</td> <td>(1-C)</td> <td>OFF</td> <td>2-C</td> <td>SPDT</td> </tr> <tr> <td>H.</td> <td>OFF</td> <td>NONE</td> <td>2-C</td> <td>SPST</td> </tr> </tbody> </table> <p>NOTE: () denotes momentary action.</p> | | Position "A" | Position "B" | Position "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 | <p>Light Type</p> <p>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</p> |
|--|---|---|--------------|--------------|--------------|--------------|---------|----|-----|------|-----|------|----|-----|------|-----|------|----|-------|------|-----|------|----|-------|------|-----|------|----|-------|-----|-------|------|----|-----|-----|-----|------|----|-------|-----|-----|------|----|-----|------|-----|------|--|
| | Position "A" | Position "B" | Position "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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Position "A"

Position "B"

Position "C"

K1 PART NUMBER CODE CONTINUED FROM ABOVE

K1 Continued **X** **X** **X** **X** **X**

| <p>Lens Color</p> <table border="0"> <tr> <th>Position "A"</th> <th>Position "C"</th> </tr> <tr> <td>A. No Lens</td> <td>A. No Lens</td> </tr> <tr> <td>B. Red</td> <td>B. Red</td> </tr> <tr> <td>C. Green</td> <td>C. Green</td> </tr> <tr> <td>D. Amber</td> <td>D. Amber</td> </tr> <tr> <td>E. Clear</td> <td>E. Clear</td> </tr> </table> | 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 | <p>Light/Circuit Location</p> <p>A. No Light</p> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <p>B.</p> <p>Dependent Light ON in position "A" Wired to terms 1 & 3</p> </div> <div style="width: 50%;"> <p>F.</p> <p>Dependent Light ON in position "A" Wired to terms 1 & 3</p> </div> <div style="width: 50%;"> <p>C.</p> <p>Independent Light ON in position "C" Wired to terms 2 & 4</p> </div> <div style="width: 50%;"> <p>G.</p> <p>Dependent Light ON in position "A" Wired to terms 1 & 3</p> </div> <div style="width: 50%;"> <p>D.</p> <p>Independent Light at position "A" Wired to terms 3 & 4</p> </div> <div style="width: 50%;"> <p>H.</p> <p>Independent Light at position "A" Wired to terms 3 & 4</p> </div> <div style="width: 50%;"> <p>E.</p> <p>Independent Light at position "C" Wired to terms 3 & 4</p> </div> <div style="width: 50%;"> <p>I.</p> <p>Independent Light ON in position "C" Wired to terms 2 & 4</p> </div> </div> <p>D = Dependent Light I = Independent Light</p> | <p>Legend & Orientation</p> <p>A. None</p> <div style="display: grid; grid-template-columns: repeat(2, 1fr); gap: 10px;"> <div>B.</div> <div>C.</div> <div>D.</div> <div>E.</div> <div>F.</div> <div>G.</div> <div>H.</div> <div>J.</div> <div>K.</div> <div>L.</div> <div>M.</div> <div>N.</div> <div>P.</div> <div>R.</div> </div> |
|--|--------------|--------------|------------|------------|--------|--------|----------|----------|----------|----------|----------|----------|--|---|
| 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 | | | | | | | | | | | | | |

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.

• K1 panel plugs available as shown on page 160.

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MOUNTING HOLE:
 PANEL THICKNESS RANGE OF .025 - .105 A GASKET IS RECOMMENDED,
 0.031" THICKNESS = GASKET P/N 807039-2
 0.062" THICKNESS = GASKET P/N 807039-1

PANEL THICKNESS RANGE OF .105 - .187 W/O GASKET
 PANEL OPENING: MIN. TYP. MAX.
 WIDTH .480 .515 .550
 LENGTH 1.072 1.099 1.125



| P.C. PIN LAYOUT | | | |
|------------------------------|------------------------|--------|----------|
| | | | |
| PADDLE STYLES | | | |
| SHORT PADDLE ROCKER | STANDARD PADDLE ROCKER | | |
| | | | |
| TERMINAL STYLES (.032 THICK) | | | |
| SCREW | QUICK CONNECT | SOLDER | P.C. PIN |
| | | | |

SNAP-IN PANEL MOUNTING

Standard Legends Per SAE Specifications

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

For legends not shown, please consult an OTTO representative.