

# HIGH CYCLE LIFE, SEALED ROCKER SWITCHES

**K1S**  
SNAP-IN  
ROCKERS

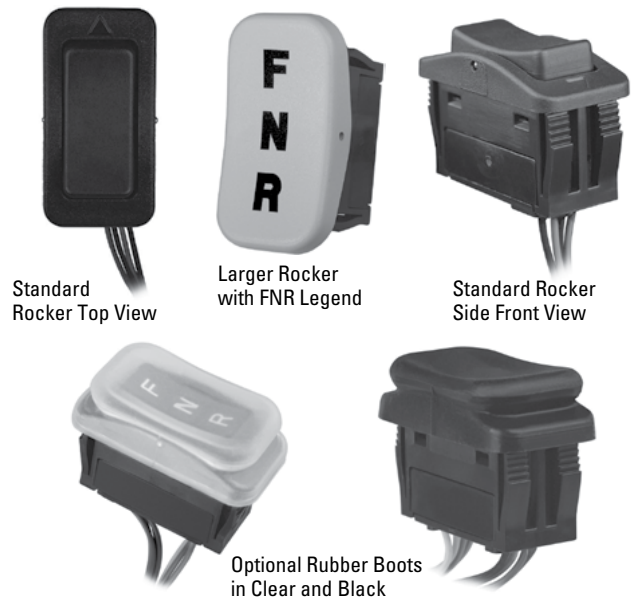
SNAP-IN PANEL MOUNTING, MOMENTARY OR MAINTAINED ACTION, 1 AND 2 POLES

The industry's smallest sealed, logic level rocker offering a 1M cycle life in a short, behind panel, snap-in package. Available in both single and double pole configurations, with maintained or momentary action, in either two or three positions. In addition the K1S is available as a true ON-ON-ON rocker that is perfect for use as a Forward-Neutral-Reverse (FNR) switch. The double pole version offers redundancy for each switch state providing increased safety. Termination options include a Molex connector or wire leads.

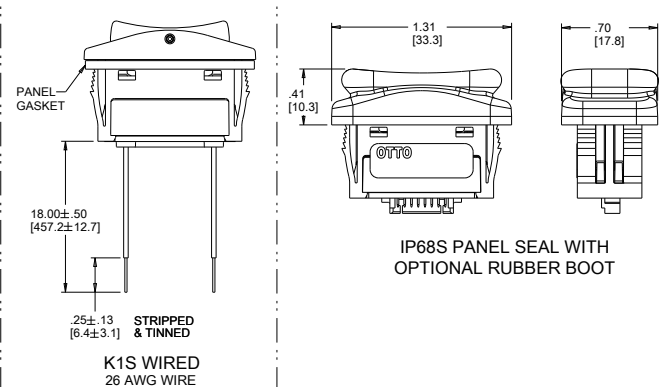
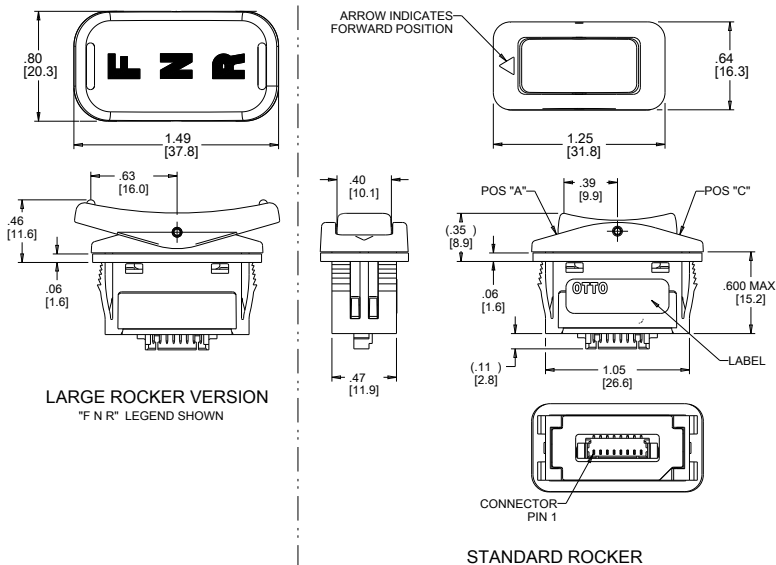
The K1S contact system is sealed to IP68S and uses a flow-thru design. With an optional boot, the switch is panel sealed to IP68S. The rugged K1S is shorter behind panel than OTTO's K1 rocker series, making it an ideal choice for use in grips and panels. The K1S also consists of two rocker button style/size options for best user comfort. Only one panel opening size is required, regardless of button size. Choose from a set of 73 standard legend choices which are offered with both normal and large-size rocker top styles, or add a custom logo, lettering or legend.

## Features:

- Shorter behind panel depth
- High cycle life, 1,000,000 cycles
- Switch contacts sealed to IP68S (panel sealed to IP68S with optional rubber boot for standard rocker only)
- Maintained or momentary action
- Single or double pole
- True ON-ON-ON switch throw options
- Fits industry standard panel openings
- Logic level only
- 2 sizes of rocker styles, standard and large
- 2 termination types, connector and wire leads
- Choose from 73 standard legends per SAE or create your own
- RoHS compliant



Standard Characteristics/Ratings:	
<b>ELECTRICAL:</b>	
Electrical Ratings:	10mA @ 5VDC max. Logic Level
Electrical Life:	1,000,000 cycles
Max Power:	0.5 VA
Max Voltage:	32VDC
Min Voltage:	20mV
Max Current:	50mA
Min Current:	1mA
DWV:	250 Vrms
<b>MECHANICAL:</b>	
Mechanical Life:	1,000,000 cycles
Switch Contact Seal:	IP68S (Panel Seal IP68S with Optional Boot)
<b>ENVIRONMENTAL:</b>	
Temperature Range:	-40°C to +85°C
<b>MATERIALS:</b>	
Base:	Black Thermoplastic
Button:	Black Thermoplastic
Bezel:	Black Thermoplastic
Wire:	26 AWG UL 11028 Wire
Gasket:	EPDM



SNAP-IN PANEL MOUNTING, MOMENTARY OR MAINTAINED ACTION, 1 AND 2 POLES

## K1S PART NUMBER CODE

Part Number Code Continues Below

<p><b>K1S</b></p> <p style="text-align: center;">  <b>X</b></p> <p><b>Connection Style</b></p> <p>A. 6 PIN Connector ①*</p> <p>B. 8 PIN Connector ②</p> <p>E. 18" Wires 26 AWG ③</p> <p>G. 18" Wires 24 AWG ③</p>	<p style="text-align: center;">  <b>X</b></p> <p><b>Rocker Color/Style</b></p> <p>A. Red Rocker</p> <p>B. Black Rocker</p> <p>C. White Rocker</p> <p>D. Large Red Rocker ④</p> <p>E. Large Black Rocker ④</p> <p>F. Large White Rocker ④</p> <p>G. Yellow Rocker</p> <p>H. Large Yellow Rocker ④</p> <p>J. Large Black Rocker with Embossed FNR (White) ④⑤⑥</p> <p>K. Large Yellow Rocker with Embossed FNR (Black) ④⑤⑥</p> <p>M. Red Rocker with Translucent Boot</p> <p>N. Black Rocker with Black Boot ⑤⑦</p> <p>P. Black Rocker with Translucent Boot</p> <p>T. White Rocker with Translucent Boot</p> <p>V. Yellow Rocker with Translucent Boot</p> <p>W. Large Orange Rocker with Embossed FNR (Black) ④⑤⑥</p>
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<p style="text-align: center;">  <b>X</b></p> <p><b>Switch Action / Circuit</b></p> <p><b>Position "A"    Position "B"    Position "C"    Circuit</b></p> <p>A. ON    NONE    OFF    SPST</p> <p>B. ON    NONE    ON    SPDT</p> <p>C. (ON)    NONE    OFF    SPST</p> <p>D. (ON)    NONE    ON    SPDT</p> <p>E. ON    OFF    ON    SPDT</p> <p>F. (ON)    OFF    (ON)    SPDT</p> <p>G. (ON)    OFF    ON    SPDT</p> <p>H. ON    ON    ON    SPST</p> <p>J. ON    NONE    OFF    DPST</p> <p>K. ON    NONE    ON    DPDT</p> <p>L. (ON)    NONE    OFF    DPST</p> <p>M. (ON)    NONE    ON    DPDT</p> <p>N. ON    OFF    ON    DPDT</p> <p>P. (ON)    OFF    (ON)    DPDT</p> <p>R. (ON)    OFF    ON    DPDT</p> <p>T. ON    ON    ON    DPTT</p> <p>U. (ON)    ON    (ON)    SPPT</p> <p>V. (ON)    ON    (ON)    DPTT</p>	<p style="text-align: center;">  <b>XX</b></p> <p><b>Legend Style</b></p> <p><b>Position "A"    Position "B"    Position "C"</b></p> <p>ZZ. No Legend    ZZ. No Legend    ZZ. No Legend</p>
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NOTE: ( ) denotes momentary action

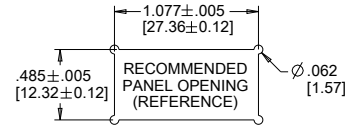
NOTE: For all other Legend Options, refer to Standard Legend Table below. Find the two digit code and enter the code in the appropriate positions

**GASKET PART NUMBER (INCLUDED)**  
C807039-25-1

## PANEL THICKNESS AND MOUNTING OPENING GUIDELINES<sup>③</sup>

PANEL THICKNESS: .086±.003 [2.18±0.08]  
RECOMMENDED PANEL THICKNESS REQUIRES EITHER THE PANEL GASKET OR THE OPTIONAL RUBBER BOOT FOR PROPER FITMENT.

PANEL OPENING:



## K1S PART NUMBER CODE - Continued From Above

<p style="text-align: center;">  <b>XXX</b></p> <p><b>Legend Color**</b></p> <p><b>Position A / B / C</b></p> <p>1. Red</p> <p>2. Black</p> <p>9. White</p> <p>Z. No Legend</p>	<p style="text-align: center;">  <b>X</b></p> <p><b>Legend Orientation</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>POSITION "A"</td> <td>POSITION "C"</td> </tr> <tr> <td>1. Std.</td> <td>◁ A B C ▷</td> <td></td> </tr> <tr> <td>2. 90°</td> <td>▷ B A ▷</td> <td></td> </tr> <tr> <td>3. 180°</td> <td>▷ A B ▷</td> <td></td> </tr> <tr> <td>4. 270°</td> <td>▷ B A ▷</td> <td></td> </tr> <tr> <td>Z.</td> <td colspan="2">NO ORIENTATION</td> </tr> </table>		POSITION "A"	POSITION "C"	1. Std.	◁ A B C ▷		2. 90°	▷ B A ▷		3. 180°	▷ A B ▷		4. 270°	▷ B A ▷		Z.	NO ORIENTATION	
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3. 180°	▷ A B ▷																		
4. 270°	▷ B A ▷																		
Z.	NO ORIENTATION																		

- ① Mating Connector: MOLEX 51021-0600
- ② Mating Connector: MOLEX 51021-0800
- ③ Unless otherwise specified, all dimensions are in inch [metric]. In the event of a conflict, the inch nominal value and tolerance will take precedence.
- ④ Rubber boot not available
- ⑤ Legend is not available. Legend Style is ZZ and Legend Color is Z
- ⑥ Legend Orientation is 4
- ⑦ Legend Orientation is Z
- \* 6 PIN Connector only available with A, B, C, D, J, K, L, M
- \*\* Legend color cannot be same color as button color (i.e. Red Button color cannot have Red Legend color)

## OPTIONAL BOOT PART NUMBER

C405810-25-12 (Translucent)  
C405810-25-2 (Black)

STANDARD LEGENDS PER SAE SPECIFICATIONS					
A1	ANCHOR	H2	HORN REAR	P4	BILGE PUMP
B1	BATTERY	K1	LOCK	P5	BILGE BLOWER
B2	ELECTRIC POWER	K2	UNLOCK	R1	LIFT
C1	AC/COOLING SYSTEMS	L1	LIGHT	R2	LOWER
C2	DEHUMIDIFIER	L2	MASTER LIGHTING SWITCH	R3	UP
C3	HEATER/INTERIOR HEATING	L3	HEADLIGHTS	R4	DOWN
D1	WINDSHIELD DEFROSTER	L4	HEADLIGHTS-LOW / DIPPED BEAM	R5	RIGHT
D2	REAR WINDOW DEFROSTER	L5	HEADLIGHTS-HIGH / UPPER BEAM	R6	LEFT
D3	MIRROR DEFROSTER	L6	PARKING LIGHT	R7	FORWARD
E1	ENGINE/START	L7	WORK LAMP	R8	REVERSE
E2	ENGINE/STOP	L8	WORK LAMP	S1	RADIO
E3	ON/START	L9	INTERIOR DOME LIGHT	S2	MUTE
E4	OFF/STOP	M1	BEACON	T1	FAST
E5	ON	M2	HAZARD/POSITION LIGHTS	T2	SLOW
E6	OFF	M3	CLEARANCE LIGHTS	T3	TRIM TAB / TRIMMING OPERATION
E7	ENGINE ELECTRIC PREHEAT	M4	SIDE MARKER LIGHT	T4	TRANSMISSION
E8	ENGINE-GAS INJECTION	M5	RUNNING LIGHTS (UNDER POWER)	V1	VENTILATING / AC FAN
E9	POWER	M6	ANCHOR LIGHT	W1	WINDSHIELD WIPER
F1	FRONT FOG LIGHTS	M7	RUNNING/ANCHOR LIGHTS	W2	WINDSHIELD-WASHER
F2	REAR FOG LIGHTS	M8	SEARCH LIGHT	W3	WINDSHIELD-WASHER/WIPER
F3	FORWARD	M9	LEFT TURN SIGNAL	W4	REAR WINDOW WIPER
F4	NEUTRAL	MA	RIGHT TURN SIGNAL	W5	REAR WINDOW-WASHER
F5	REVERSE	P1	BILGE PUMP #1	W6	REAR WINDOW-WASHER/WIPER
G1	FUEL	P2	BILGE PUMP #2	ZZ	NO LEGEND
H1	HORN	P3	BILGE PUMP #3		

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## WIRED CIRCUIT DIAGRAM

K1S E _ A _ _ _ _	K1S E _ B _ _ _ _	K1S E _ C _ _ _ _	K1S E _ D _ _ _ _
<p>SPST - ON-NONE-OFF WIRED SCHEMATIC</p>	<p>SPDT - ON-NONE-ON WIRED SCHEMATIC</p>	<p>SPST - (ON)-NONE-OFF WIRED SCHEMATIC</p>	<p>SPDT - (ON)-NONE-ON SCHEMATIC</p>
K1S E _ E _ _ _ _	K1S E _ F _ _ _ _	K1S E _ G _ _ _ _	K1S E _ H _ _ _ _
<p>SPDT - ON-OFF-ON WIRED SCHEMATIC</p>	<p>SPDT - (ON)-OFF-(ON) WIRED SCHEMATIC</p>	<p>SPDT - (ON)-OFF-ON WIRED SCHEMATIC</p>	<p>SPTT - ON-ON-ON WIRED SCHEMATIC</p>
K1S E _ U _ _ _ _	K1S E _ J _ _ _ _	K1S E _ K _ _ _ _	K1S E _ L _ _ _ _
<p>SPTT - (ON)-ON-(ON) WIRED SCHEMATIC</p>	<p>DPST - ON-NONE-OFF WIRED SCHEMATIC</p>	<p>DPDT - ON-NONE-ON WIRED SCHEMATIC</p>	<p>DPST - (ON)-NONE-OFF WIRED SCHEMATIC</p>
K1S E _ M _ _ _ _	K1S E _ N _ _ _ _	K1S E _ P _ _ _ _	K1S E _ R _ _ _ _
<p>DPDT - (ON)-NONE-ON WIRED SCHEMATIC</p>	<p>DPDT - ON-OFF-ON WIRED SCHEMATIC</p>	<p>DPDT - (ON)-OFF-(ON) WIRED SCHEMATIC</p>	<p>DPDT - (ON)-OFF-ON WIRED SCHEMATIC</p>
K1S E _ T _ _ _ _	K1S E _ V _ _ _ _		
<p>DPTT - ON-ON-ON WIRED SCHEMATIC</p>	<p>DPTT - (ON)-ON-(ON) WIRED SCHEMATIC</p>		

Your official representative



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## CONNECTOR CIRCUIT DIAGRAM

K1S B _ A _ _ _ _	K1S B _ B _ _ _ _	K1S B _ C _ _ _ _	K1S B _ D _ _ _ _
<p>SPST - ON-NONE-OFF SCHEMATIC</p>	<p>SPDT - ON-NONE-ON SCHEMATIC</p>	<p>SPST - (ON)-NONE-OFF SCHEMATIC</p>	<p>SPDT - (ON)-NONE-ON SCHEMATIC</p>
K1S B _ E _ _ _ _	K1S B _ F _ _ _ _	K1S B _ G _ _ _ _	K1S B _ H _ _ _ _
<p>SPDT - ON-OFF-ON SCHEMATIC</p>	<p>SPDT - (ON)-OFF-(ON) SCHEMATIC</p>	<p>SPDT - (ON)-OFF-ON SCHEMATIC</p>	<p>SPTT - ON-ON-ON SCHEMATIC</p>
K1S B _ U _ _ _ _	K1S B _ J _ _ _ _	K1S B _ K _ _ _ _	K1S B _ L _ _ _ _
<p>SPTT - ON-ON-ON SCHEMATIC</p>	<p>DPST - ON-NONE-OFF SCHEMATIC</p>	<p>DPDT - ON-NONE-ON SCHEMATIC</p>	<p>DPST - (ON)-NONE-OFF SCHEMATIC</p>
K1S B _ M _ _ _ _	K1S B _ N _ _ _ _	K1S B _ P _ _ _ _	K1S B _ R _ _ _ _
<p>DPDT - (ON)-NONE-ON SCHEMATIC</p>	<p>DPDT - ON-OFF-ON SCHEMATIC</p>	<p>DPDT - (ON)-OFF-(ON) SCHEMATIC</p>	<p>DPDT - (ON)-OFF-ON SCHEMATIC</p>
K1S B _ T _ _ _ _	K1S B _ V _ _ _ _		
<p>DPTT - ON-ON-ON SCHEMATIC</p>	<p>DPTT - (ON)-ON-(ON) SCHEMATIC</p>		