

SEALED, ILLUMINATED ROCKER SWITCHES

ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS

The OTTO K5 series 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.

K5 series sealed rocker switches snap into industry-standard panel cutouts. Choose illuminated and printed legends, thru-panel drain option and switching compatibility from low level up to 20 amps.

The K5 series 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 low level contact ratings, the K5 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
- Snap-in panel mounting into industry standard panel cutout
- Optional panel seal gasket
- 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
- Soft Touch button available
- RoHS/WEEE/Reach compliant



Raised Bars Shown

Standard Characteristics/Ratings:

ELECTRICAL RATINGS:

Load	Sea Level @ 28VDC	Sea Level @ 115VAC, 60/400Hz
Resistive	20A	16A
Inductive	15A	15A
Lamp	5A	5A
Motor	0.5HP @ 110VAC	
DWV	1050Vrms except across light terminals	
Low Level	10mA @ 30mV	

Electrical Life: 25,000 cycles

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: -40°C to +85°C

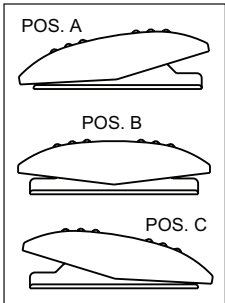
MATERIALS:

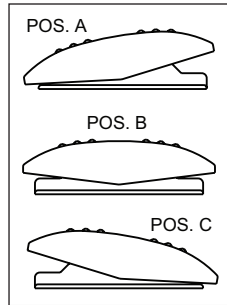
Case:	Thermoplastic
Button:	Thermoplastic
Terminals/Contact:	Brass, silver alloy with silver plate, gold flash for low level
Terminal Hardware:	K5 series recommended Quick Connect terminals: AMP 60253-2 for 12-16 AWG AMP 42100-2 for 14-18 AWG
Mounting Hardware:	None provided

SNAP-IN PANEL MOUNTING

K5 SERIES PART NUMBER CODE

Part Number Code Continued Below

K5		X		X		XX		X		X	
Base Options		Rocker Color*/Style		Rocker Features		Switch Action/Circuit		Light Source Type		Light Circuit	
A. With Keying Pin Only Standard Rating Silver Plate		A. Black Plastic Rocker B. Black "Soft Touch" Rocker C. Red Plastic Rocker D. Red "Soft Touch" Rocker E. White Plastic Rocker F. White "Soft Touch" Rocker H. Green Plastic Rocker J. Orange Plastic Rocker K. Blue Plastic Rocker L. Gray "Soft Touch" Rocker M.Gray Plastic Rocker		Position "A" Position "C" 1. No Feature 1. No Feature 2. Lens 2. Lens 3. Raised Bars 3. Raised Bars 4. Raised Lit Bars 4. Raised Lit Bars		Position "A" Position "B" Position "C" Circuit 1A. 3-4 NONE OFF SPST 2A. 3-4/8-9 NONE OFF DPST 1B. 3-4 NONE 3-2 SPDT 2B. 3-4/8-9 NONE 3-2/8-7 DPDT 1C. (3-4) NONE OFF SPST 2C. (3-4)/(8-9) NONE OFF DPST 1D. (3-4) NONE 3-2 SPDT 2D. (3-4)/(8-9) NONE 3-2/8-7 DPDT 1E. (3-4) OFF (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) OFF 3-2/8-7 DPDT		A. No Illumination 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		Circuit Terminal A. NONE 1(-) & 4(+) B. Dep. in "A" 2(+) & 5(-) C. Dep. in "C" 2(+) & 5(-) D. Ind. in "A" 1(-) & 6(+) E. Ind. in "C" 5(-) & 10(+) F. Dep. in "A" 1(-) & 4(+) Dep. in "C" 2(+) & 5(-) G. Dep. in "A" 1(-) & 4(+) Ind. in "C" 5(-) & 10(+) H. Ind. in "A" 1(-) & 6(+) Dep. in "C" 2(+) & 5(-) J. Ind. in "A" 1(-) & 6(+) Ind. in "C" 5(-) & 10(+)	
B. Without Barriers or Pin Standard Rating Silver Plate		*Additional colors available. Contact factory.				Special Circuits Position "A" Position "B" Position "C" Special 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 2S. (3-4)/8-9 OFF/8-9 OFF/OFF (ON)/OFF/OFF ON/OFF/OFF					
C. With Terminal Barriers Only Standard Rating Silver Plate											
D. With Keying Pin Only Low Level Rating Gold Plate											
E. Without Barriers or Pin Low Level Rating Gold Plate											
F. With Terminal Barriers Only Low Level Rating Gold Plate											
G. With Keying Pin Only Standard Rating No Plate											
H. Without Barrier or Pin Standard Rating No Plate											
J. With Terminal Barriers Only Standard Rating No Plate											
NOTE: All code combinations are not feasible. Consult factory for product availability.											
NOTE: () denotes momentary action.											



Special Circuits				
	Position "A"	Position "B"	Position "C"	Special 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

K5 PART NUMBER CODE - CONTINUED FROM ABOVE

X		X	XX		XX	X		X	X				
Lens Color			Legend Style			Legend Color			Legend Orientation				
Position "A"		Position "C"	Position "A"		Position "C"	Position "A"		Position "C"	Position "A"	Position "C"			
1. Transparent Red		1. Transparent Red	ZZ. No Legend		ZZ. No Legend	1. Red		1. Red	1. Std.	A	C		
2. Transparent Green		2. Transparent Green	NOTE: For all other legend options, refer to the legend table on page 155, find the two digit code and enter the code in the appropriate position(s).		2. Black		2. Black	2. 90°				A	C
3. Transparent Amber ①		3. Transparent Amber ①			9. White		9. White						
4. Clear ①		4. Clear ①			B. Backlight/ Daylight White ③		B. Backlight/ Daylight White ③						
5. Translucent White ②		5. Translucent White ②			D. Backlight/ Deadfront ③		D. Backlight/ Deadfront ③						
Z. No Lens		Z. No Lens			Z. No Legend		Z. No Legend		3. 180°	A	C		
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. ① Recommended for neon lamps. ② Special Order: Ultra bright green LEDs to be used with translucent white lens.		STOP HERE for <u>lighted</u> switches <u>without legends</u> . Example: K5AA331FNH-44		③ Only available on Rocker Style "A" & Rocker Features "1" and lens color "Z" for each position.									
								4. 270°	A	C			

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.

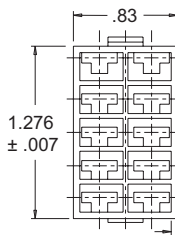
- ① Recommended for neon lamps.
- ② Special Order: Ultra bright green LEDs to be used with translucent white lens.

STOP HERE for lighted switches without legends.

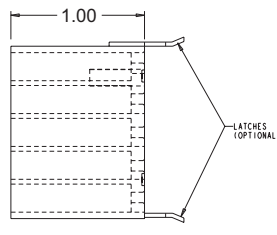
Example: K5AA331FNH-44

STOP HERE for unlighted switches without legends.

Example: K5AA331BAA



.046 TYP.



K5 Connector
P/N 801775-2A Without Latches
P/N 801775-2B With Latches

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

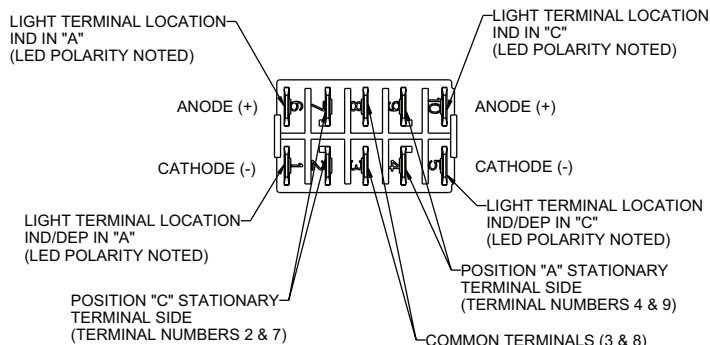
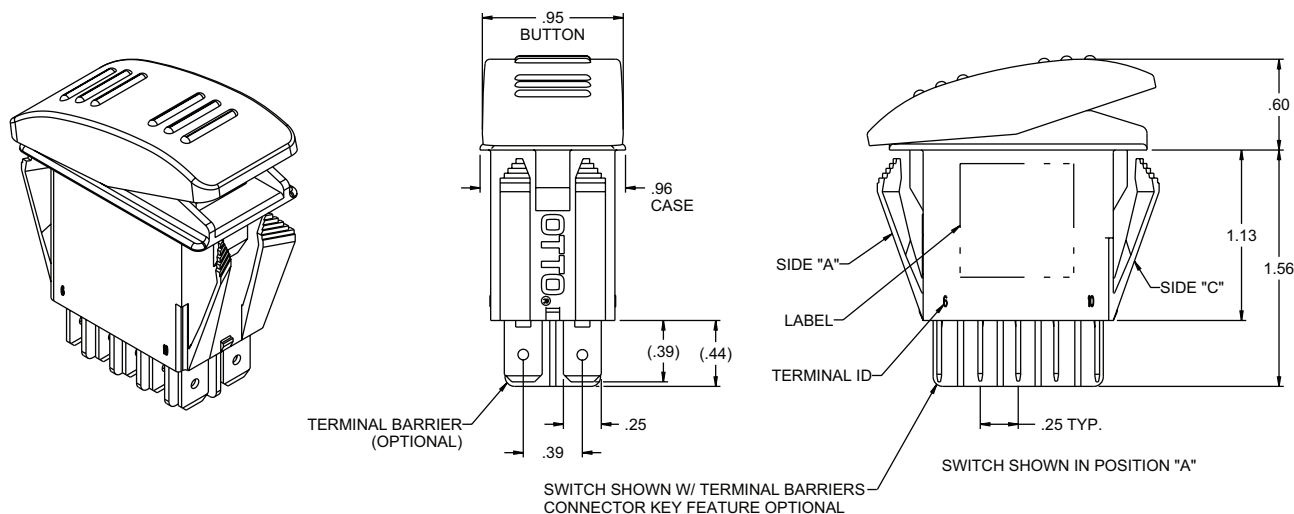
Panel Seal Gasket
P/N 807109

• K5 panel plugs available as shown on page 160.

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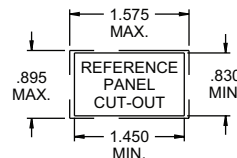
K5
SEALED
ROCKERS

ATTRACTIVE & RUGGED FOR WET & DUSTY ENVIRONMENTS



TERMINAL LOCATIONS AS VIEWED FROM BOTTOM OF SWITCH
(CASE REMOVED FOR CLARITY)
CONTACT MADE IN OPPOSITE DIRECTION OF ROCKER TRAVEL

MOUNTING OPENING:
PANEL THICKNESS RANGE OF .025 - .105 A GASKET IS RECOMMENDED
PANEL THICKNESS RANGE OF .105 - .187 W/O GASKET
PANEL OPENING: MIN. TYP. MAX.
WIDTH .830 .863 .895
LENGTH 1.450 1.513 1.575



POS "A" POS "B" POS "C" SPECIAL CIRCUIT - ON-ON-ON SCHEMATIC	K5....2A.... DPST - ON-NONE-OFF SCHEMATIC	K5....2B.... DPDT - ON-NONE-ON SCHEMATIC	K5....2C.... DPST - (ON) - NONE-OFF SCHEMATIC	K5....2D.... DPDT - (ON) - NONE-ON SCHEMATIC	GENERAL SCHEMATIC INFORMATION ○—○ INDICATES MAINTAIN ACTION (FIXED POSITION) ▼—○ INDICATES MOMENTARY ACTION (AUTOMATIC RETURN POSITION) FOR OTHER LIGHTING SCHEMATICS REPLACE FOLLOWING SYMBOLS: Ⓜ INCANDESCENT (REPLACE RESISTOR & LED) Ⓝ NEON (REPLACE LED)
K5....2E.... DPDT - (ON) - OFF - (ON) SCHEMATIC	K5....2F.... DPDT - ON-OFF-ON SCHEMATIC	K5....2G.... DPDT - (ON) - OFF-ON SCHEMATIC	K5....2BND...Z DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A"	K5....2BNC-Z DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "C"	
K5....2BND...Z DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A"	K5....2BNE-Z DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "C"	K5....2BNF... DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A" & "C"	K5....2BNG... DPDT - ON-NONE-ON SCHEMATIC W/DEPENDENT LED IN "A" & INDEPENDENT LED IN "C"	K5....2BNH... DPDT - ON-NONE-ON SCHEMATIC W/INDEPENDENT LED IN "A" & DEPENDENT LED IN "C"	K5....2BNJ... DPDT - ON-NONE-ON SCHEMATIC W/INDEPENDENT LED IN "A" & "C"

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 / DIPPED BEAM
C3		HEATER/INTERIOR HEATING	L5		HEADLIGHTS-HIGH / 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 (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 / 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.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- 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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