

LOW COST, SNAP-IN TOGGLE FOR WET & DUSTY ENVIRONMENTS, 1 & 2 POLES

The K4 series snap-in toggle switches are rugged, high performance sealed switches designed for use under severe conditions found in marine, appliance, heavy equipment and industrial control applications. They are totally sealed so the switch can withstand direct water spray and submersion, even during operation. Sealed to IP68S with an optional panel seal available, the K4 is also sealed to IP69K.

The K4 series is offered in single and double pole configurations. Toggle action includes 2 and 3-position, momentary and maintained operation in a combination of 13 variations.

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.

Existing unsealed applications are easily upgraded to sealed functionality because the K series drops into existing panel cutouts.

A choice of models are offered to handle current from 16 amps to low level electronic switching levels.

## Features:

- Withstands direct water spray
- Sealed to IP68S and IP69K
- 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
- Legends & illuminated function indicators available
- 2 & 3-position, momentary, maintained action & center OFF
- RoHS/WEEE/Reach compliant



Single & Double Pole

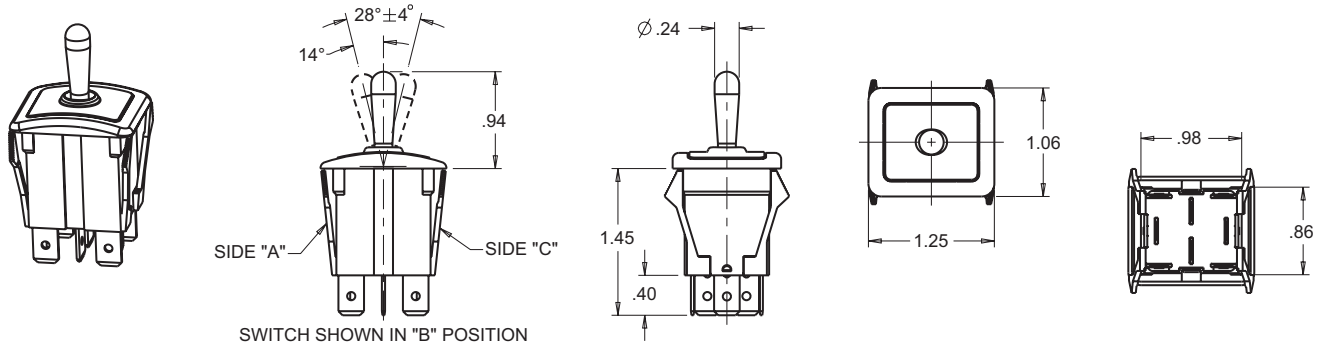
LED, Neon or Incandescent Illumination

| Standard Characteristics/Ratings: |                                                                                                                                                             |         |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| <b>ELECTRICAL RATINGS:</b>        |                                                                                                                                                             |         |
| 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                                                                                                                                                 | 100,000 |
| <b>Electrical Life:</b>           | See Rating Chart                                                                                                                                            |         |
| <b>LIGHTING:</b>                  |                                                                                                                                                             |         |
| Light Source                      | Rating                                                                                                                                                      |         |
| Incandescent                      | (VDC) 6V, 12V, 24V                                                                                                                                          |         |
| Neon                              | (VAC) 125V, 250V                                                                                                                                            |         |
| LED                               | (VDC) 2V, 6V, 12V, 24V                                                                                                                                      |         |
| <b>Mechanical Life:</b>           | 100,000 cycles                                                                                                                                              |         |
| <b>Seal:</b>                      | IP68S and IP69K                                                                                                                                             |         |
| <b>Operating Temp Range:</b>      | -30°C to +85°C                                                                                                                                              |         |
| <b>MATERIALS:</b>                 |                                                                                                                                                             |         |
| <b>Case:</b>                      | Thermoplastic                                                                                                                                               |         |
| <b>Toggle:</b>                    | Stainless steel                                                                                                                                             |         |
| <b>Terminals/Contact:</b>         | Brass, silver alloy with silver plate, gold plate for low level                                                                                             |         |
| <b>Terminal Hardware:</b>         | Screws and lockwashers provided when applicable<br>K4 series recommended Quick Connect terminals:<br>AMP 60253-2 for 12-16 AWG<br>AMP 42100-2 for 14-18 AWG |         |
| <b>Mounting Hardware:</b>         | None provided                                                                                                                                               |         |

# SEALED, ILLUMINATED SNAP-IN TOGGLE

**K4**  
SNAP-IN  
TOGGLES

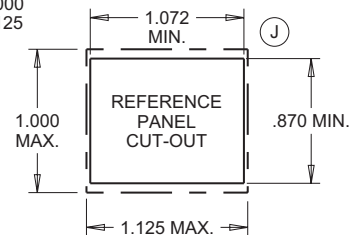
LOW COST, SNAP-IN TOGGLE FOR WET & DUSTY ENVIRONMENTS, 1 & 2 POLES



SWITCH SHOWN IN "B" POSITION

| TERMINAL STYLES (.032 THICK) |               |        |
|------------------------------|---------------|--------|
| SCREW                        | QUICK CONNECT | SOLDER |
|                              |               |        |

**MOUNTING OPENING:** (J)  
 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 .870 .937 1.000  
 LENGTH 1.072 1.099 1.125



## K4 SERIES PART NUMBER CODE

|                                         |                           |                              |                         |                         |                         |                            |                         |                         |                               |                                   |
|-----------------------------------------|---------------------------|------------------------------|-------------------------|-------------------------|-------------------------|----------------------------|-------------------------|-------------------------|-------------------------------|-----------------------------------|
| <b>K4</b>                               | <b>X</b>                  | <b>X</b>                     | <b>X</b>                | <b>X</b>                | <b>X</b>                | <b>X</b>                   | <b>X</b>                | <b>X</b>                |                               |                                   |
| <b>Terminal Style/<br/>Switch Style</b> | <b>Actuator<br/>Style</b> | <b>Switch Action/Circuit</b> |                         |                         | <b>Circuit</b>          | <b>Light Type</b>          |                         | <b>Lens Color</b>       | <b>Light/Circuit Location</b> | <b>Legend &amp; Orientation</b> □ |
| <b>A.</b> Quick Connect/<br>Standard    | <b>A.</b> Bat<br>Handle   | <b>A.</b> 1-C1               | <b>Position<br/>"A"</b> | <b>Position<br/>"B"</b> | <b>Position<br/>"C"</b> | <b>A.</b> No Light         | <b>Position<br/>"A"</b> | <b>Position<br/>"B"</b> | <b>A.</b> No Legend           |                                   |
| <b>B.</b> Screw/Standard                |                           | <b>B.</b> 1-C1               | NONE                    | NONE                    | 2-C1                    | <b>B.</b> 6V Incandescent  | <b>A.</b> No Lens       | <b>A.</b> No Lens       | <b>B.</b> Red                 | <b>B.</b> Red                     |
| <b>C.</b> Solder/Standard               |                           | <b>C.</b> (1-C1)             | NONE                    | NONE                    | OFF                     | <b>C.</b> 12V Incandescent | <b>C.</b> Green         | <b>C.</b> Green         | <b>C.</b> Green               | <b>C.</b> Green                   |
| <b>D.</b> Quick Connect/<br>Low Level   |                           | <b>D.</b> (1-C1)             | NONE                    | NONE                    | 2-C1                    | <b>D.</b> 24V Incandescent | <b>D.</b> Amber         | <b>D.</b> Amber         | <b>D.</b> Amber               | <b>D.</b> Amber                   |
| <b>E.</b> Screw/Low Level               |                           | <b>E.</b> (1-C1)             | OFF                     | OFF                     | (2-C1)                  | <b>E.</b> 125VAC Neon      | <b>E.</b> Clear         | <b>E.</b> Clear         | <b>E.</b> Clear               | <b>E.</b> Clear                   |
| <b>F.</b> Solder/Low Level              |                           | <b>F.</b> 1-C1               | OFF                     | OFF                     | 2-C1                    | <b>F.</b> 250VAC Neon      |                         |                         |                               |                                   |
|                                         |                           | <b>G.</b> (1-C1)             | OFF                     | OFF                     | 2-C1                    | <b>G.</b> 2V Red LED       |                         |                         |                               |                                   |
|                                         |                           | <b>H.</b> 1-C1/3-C2          | NONE                    | OFF                     | OFF                     | <b>H.</b> 2V Green LED     |                         |                         |                               |                                   |
|                                         |                           | <b>J.</b> 1-C1/3-C2          | NONE                    | 2-C1/4-C2               | OFF                     | <b>J.</b> 2V Amber LED     |                         |                         |                               |                                   |
|                                         |                           | <b>K.</b> (1-C1)/(3-C2)      | NONE                    | OFF                     | OFF                     | <b>K.</b> 6V Red LED       |                         |                         |                               |                                   |
|                                         |                           | <b>L.</b> (1-C1)/(3-C2)      | NONE                    | 2-C1/4-C2               | OFF                     | <b>L.</b> 6V Green LED     |                         |                         |                               |                                   |
|                                         |                           | <b>M.</b> (1-C1)/(3-C2)      | OFF                     | (2-C1)/(4-C2)           | DPDT                    | <b>M.</b> 6V Amber LED     |                         |                         |                               |                                   |
|                                         |                           | <b>N.</b> 1-C1/3-C2          | OFF                     | 2-C1/4-C2               | DPDT                    | <b>N.</b> 12V Red LED      |                         |                         |                               |                                   |
|                                         |                           | <b>P.</b> (1-C1)/(3-C2)      | OFF                     | 2-C1/4-C2               | DPDT                    | <b>P.</b> 12V Green LED    |                         |                         |                               |                                   |
|                                         |                           |                              |                         |                         |                         | <b>Q.</b> 12V Amber LED    |                         |                         |                               |                                   |
|                                         |                           |                              |                         |                         |                         | <b>R.</b> 24V Red LED      |                         |                         |                               |                                   |
|                                         |                           |                              |                         |                         |                         | <b>S.</b> 24V Green LED    |                         |                         |                               |                                   |
|                                         |                           |                              |                         |                         |                         | <b>T.</b> 24V Amber LED    |                         |                         |                               |                                   |

NOTE: ( ) denotes momentary action.

**Optional Panel Gasket:**  
 P/N 807038-1 0.062" thickness  
 P/N 807038-2 0.031" thickness

**K4 Connector P/N C801765**

**POSITION "A"**    **POSITION "B"**    **POSITION "C"**

**C1**  
 2 IC 1  
 4 IC 3

**C2**  
 2 IC 1  
 4 IC 3

**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 legends on lamp side of switch.
- No dependent light in OFF positions.
- 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.

**NOTE: LED anode (+) terminal number shown in bold.**

**D** = Dependent Light  
**I** = Independent Light

① All legends are white. Legend cannot be on the same side as the lens.

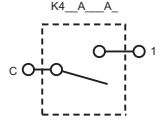
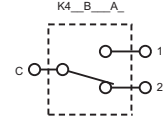
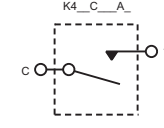
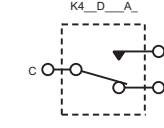
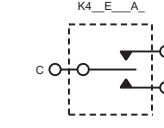
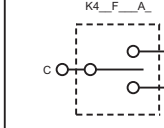
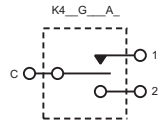
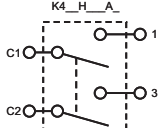
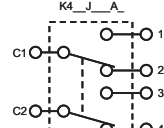
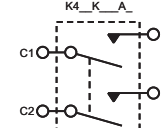
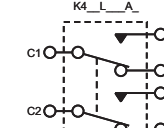
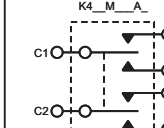
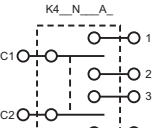
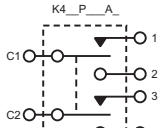
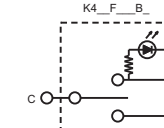
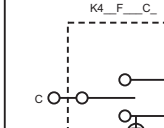
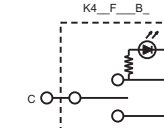
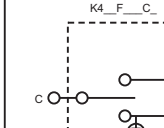
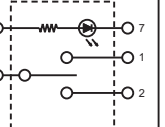
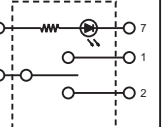
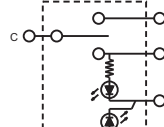
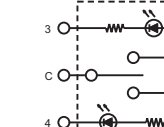
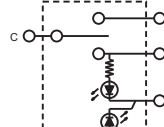
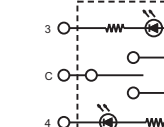
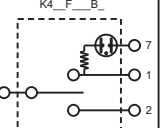
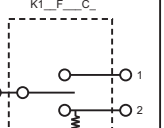
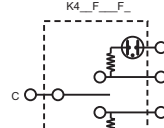
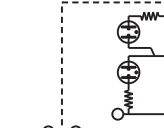
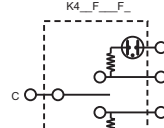
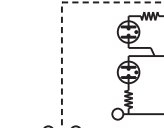
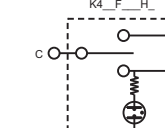
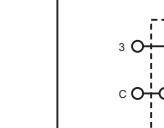
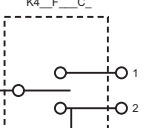
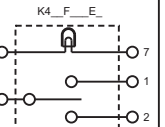
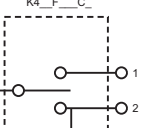
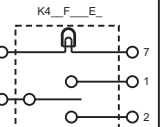
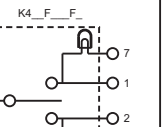
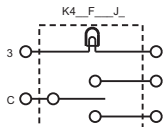
## ORDERING INFORMATION

**Example:** K4AAKEEABA specifies Q.C. terminals, standard rating; bat handle; DPST two position momentary ON, maintained OFF; 125VAC neon light; clear lens in positions "A", no lens in position "C"; dependent light ON in position "A", wired to terminals 1 & 7; no legend.

• K4 panel plugs available as shown on page 167.

Specifications Subject To Change Without Notice

## K4 SCHEMATICS

|                                                                                                                                                                                                       |                                                                                                                                                                                                           |                                                                                                                                                                                                           |                                                                                                                                                                                                           |                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>K4_A_A_A_<br/>SPST - ON-NONE-OFF SCHEMATIC</p>                                                                   |  <p>K4_B_A_A_<br/>SPST - ON-NONE-ON SCHEMATIC</p>                                                                        |  <p>K4_C_A_A_<br/>SPST - (ON)-NONE-OFF SCHEMATIC</p>                                                                     |  <p>K4_D_A_A_<br/>SPDT - (ON)-NONE-ON SCHEMATIC</p>                                                                      |  <p>K4_E_A_A_<br/>SPDT - (ON)-OFF-(ON) SCHEMATIC</p>                                                                     |  <p>K4_F_A_A_<br/>SPDT - ON-OFF-ON SCHEMATIC</p>                                                                                                                             |
|  <p>K4_G_A_A_<br/>SPDT - (ON)-OFF-ON SCHEMATIC</p>                                                                   |  <p>K4_H_A_A_<br/>DPST - ON-NONE-OFF SCHEMATIC</p>                                                                       |  <p>K4_J_A_A_<br/>DPDT - ON-NONE-ON SCHEMATIC</p>                                                                        |  <p>K4_K_A_A_<br/>DPST - (ON)-NONE-OFF SCHEMATIC</p>                                                                     |  <p>K4_L_A_A_<br/>DPDT - (ON)-NONE-ON SCHEMATIC</p>                                                                      |  <p>K4_M_A_A_<br/>DPDT - (ON)-OFF-(ON) SCHEMATIC</p>                                                                                                                         |
|  <p>K4_N_A_A_<br/>DPDT - ON-OFF-ON SCHEMATIC</p>                                                                     |  <p>K4_P_A_A_<br/>DPDT - (ON)-OFF-ON SCHEMATIC</p>                                                                       | <p>GENERAL SCHEMATIC INFORMATION</p> <ul style="list-style-type: none"> <li>○ ○ INDICATES MAINTAIN ACTION (FIXED POSITION)</li> <li>◀ ○ INDICATES MOMENTARY ACTION (AUTOMATIC RETURN POSITION)</li> </ul> |                                                                                                                                                                                                           |  <p>K4_F_B_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP LED IN "A"</p>                                                    |  <p>K4_F_C_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP LED IN "C"</p>                                                                                                        |
|  <p>K4_F_D_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND LED IN "A"</p>                                               |  <p>K4_F_E_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND LED IN "C"</p>                                                   |  <p>K4_F_F_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP LED IN "A" "C"</p>                                        |  <p>K4_F_G_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP LED IN "A" IND LED IN "C"</p>         |  <p>K4_F_H_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND LED IN "A" DEP LED IN "C"</p>         |  <p>K4_F_J_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND LED IN "A" IND LED IN "C"</p>                                                             |
|  <p>K4_F_B_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP NEON BULB IN "A"</p>                                        |  <p>K4_F_C_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP NEON BULB IN "C"</p>                                            |  <p>K4_F_D_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND NEON BULB IN "A"</p>                                            |  <p>K4_F_E_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND NEON BULB IN "C"</p>                                            |  <p>K4_F_F_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP NEON BULB IN "A" "C"</p>                                 |  <p>K4_F_G_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP NEON IN "A" IND NEON IN "C"</p>                                                         |
|  <p>K4_F_H_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND NEON IN "A" DEP NEON IN "C"</p> |  <p>K4_F_J_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND NEON IN "A" "C" IND NEON IN "C"</p> |  <p>K4_F_B_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP BULB IN "A"</p>                                                 |  <p>K4_F_C_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP BULB IN "C"</p>                                                 |  <p>K4_F_D_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND BULB IN "A"</p>                                                 |                                                                                                                                                                                                                                                                 |
|  <p>K4_F_E_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND BULB IN "C"</p>                                             |  <p>K4_F_F_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP BULB IN "A" "C"</p>                                      |  <p>K4_F_G_<br/>SPDT - ON-OFF-ON SCHEMATIC W/DEP BULB IN "A" "C" IND BULB IN "C"</p> |  <p>K4_F_H_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND BULB IN "A" "C" DEP BULB IN "C"</p> |  <p>K4_F_J_<br/>SPDT - ON-OFF-ON SCHEMATIC W/IND BULB IN "A" "C" IND BULB IN "C"</p> | <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE AS LISTED. MUST BE FREE FROM BURRS AND SHARP EDGES</p> <p>TOLERANCES<br/>           .XX ±.03<br/>           .XXX ±.010<br/>           ANGLES ±2°<br/>           DO NOT SCALE DRAWING</p> |

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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