

**LEAD FREE  
COMPATIBLE OPTION**

# C&K ELUM™ Series Right Angle Illuminated Latching Pushbutton



A

Pushbutton

## Features/Benefits

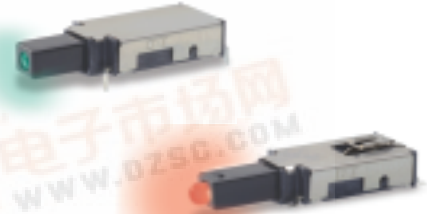
- SPDT (N.O. & N.C.)
- Low height above PCB
- Reliable self-cleaning contact
- Surface-mount or thru-hole PCB
- Standard or custom actuator
- Central LED illumination
- Latching or Momentary
- Long travel. Smooth feel
- RoHS compliant and compatible

## Typical Applications

- Telecom network equipment
- Automotive electronics
- Consumer electronics
- Computer, server, modem, data storage
- Professional instrumentation, medical

**NEW!**

Patent Number  
6,974,924 B2



## Materials

FIXED CONTACTS AND TERMINALS: Stainless steel, silver plated with gold flash (STD.)  
MOVABLE CONTACTS: Copper alloy, silver plated with gold flash (STD.)  
BASE: Glass filled LCP (UL94V-0)  
ACTUATOR: Glass filled nylon 4/6 (UL94V-0)  
COVER: Stainless steel

## Electrical

MAXIMUM POWER: 3.5 VA  
MIN./MAX. VOLTAGE: 20 mV – 50 VDC  
MIN./MAX. CURRENT: 0.01 mA – 250 mA  
DIELECTRIC STRENGTH:  $\geq 250$  Vrms  
CONTACT RESISTANCE:  $\leq 50$  m $\Omega$   
INSULATION RESISTANCE:  $\geq 10^9$   $\Omega$   
BOUNCE TIME:  $\leq 1$  ms  
LED SPECIFICATIONS: See page A-5

## Mechanical

OPERATING FORCE: 2.5 N at Full Travel  
SWITCHING TRAVEL: .067" (1.7 mm)  
LATCH TRAVEL: .131" (3.6 mm)  
FULL TRAVEL: .200" (5.1 mm)

## Operating Environment

OPERATING TEMPERATURE: -40°C to 85°C.  
STORAGE TEMPERATURE: -40°C to 85°C.  
RELATIVE HUMIDITY: 90% R.H. @ 85°C.  
OPERATING LIFE: 30,000 Cycles.  
VIBRATION: Per EIA 186-E Methods 7 & 8  
MECHANICAL SHOCK: Per EIA 186-E Method 12.  
OVERLOAD: Withstands 40 N for 1 minute without damage

## Process Environment

SOLDERABILITY: According to Mil STD 202F Method 208D or EIA RS-186E Method 9.  
LEAD FREE PROCESS COMPATIBLE: 260°C peak, 10 seconds Max. above 250° C.  
WASHING PROCESS: No clean process compatible (SMT)  
Bottom wash compatible (Thru-hole)  
SHEAR TEST (SWITCH/PCB): > 40 N

## Packaging

"SA" Terminal Style SMT: Tape and reel per EIA 481-2 (450/reel)  
"TH" Terminal Style PC: Tray (60/tray)

**NOTE:** Any models supplied with Q, contact material are RoHS compliant.  
For the latest information regarding RoHS compliance, please go to: [www.itcannon.com/rohs](http://www.itcannon.com/rohs).

**NOTE:** Specifications and materials listed above are for switches with standard options.  
For information on specific and custom switches, please contact Customer Service.

## Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box.

<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>E</b> <b>L</b> <b>U</b> <b>M</b> </div>		<div style="border: 1px solid black; padding: 5px; display: inline-block;"> <b>Q</b> </div>	
<b>Designation</b> <b>ELUM</b> ELUM Series		<b>Actuator Style**</b> <b>C02</b> Black without window <b>C12</b> Black with window <b>C22</b> Black with window and snap feature for custom actuators	
<b>Switch Function</b> <b>OA</b> Momentary <b>EE</b> Latching (push-push)		<b>Terminal Style</b> <b>TH</b> Right Angle, PC thru-hole <b>SA</b> Right Angle, surface mount	
<b>Contact Material*</b> <b>Q</b> Silver with gold flash		<b>Illumination</b> <b>(NONE)</b> Models without illumination <b>1</b> LED White <b>2</b> LED Bi-color – Red (Green) <b>3</b> LED Red <b>5</b> LED Amber <b>6</b> LED Green <b>7</b> LED Blue <b>8</b> LED Bi-Color – Amber (Green)	

\* Other plating options available, please contact Customer Service.  
\*\* Custom actuators available, please contact Customer Service.





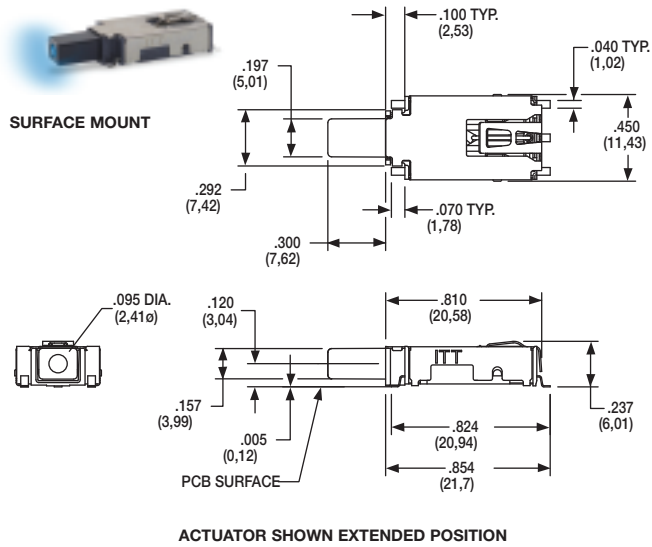
A

Pushbutton

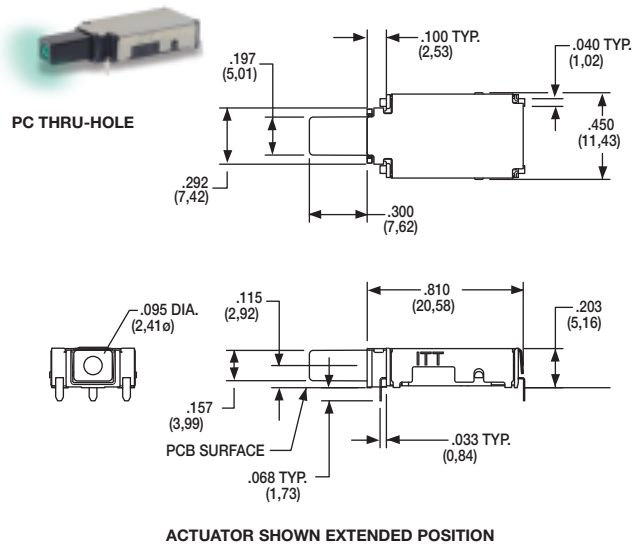
# C&K ELUM™ Series Right Angle Illuminated Latching Pushbutton

## STANDARD OPTIONS

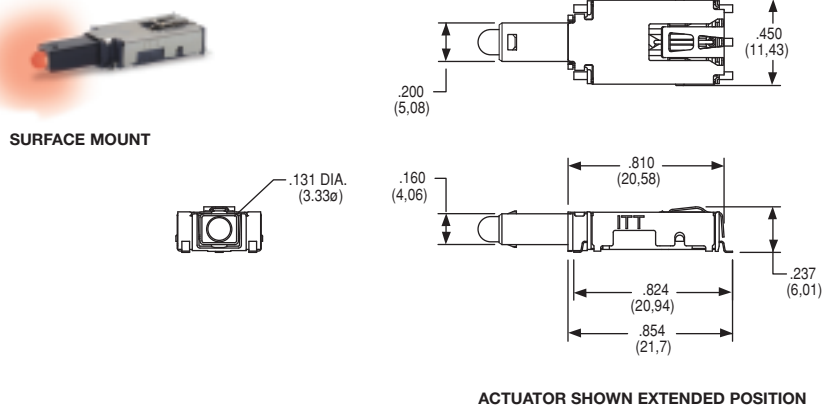
### ELUMEESAQ7C12



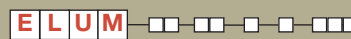
### ELUMOATHQ6C12



### ELUMEESAQ3C22



## DESIGNATION



**ELUM** ELUM SERIES, Illuminated Latching Pushbutton

## SWITCH FUNCTION



OPTION CODE	NO. OF POLES	SWITCH FUNCTION	CONNECTED TERMINALS	POSITION 1	POSITION 2	SCHEMATIC
OA	SP Momentary	ON	3 - 4	ON (Mom.)	3 - 2	
EE	SP Latching (Push-Push)	ON	3 - 4	ON	3 - 2	

For SPST N.O. function, only terminals 3 & 2 are used.

For SPST N.C. function, only terminals 3 & 4 are used.

Circuit: Make before break

LED pins 1 & 5 are independent of switch function.



Third Angle Projection

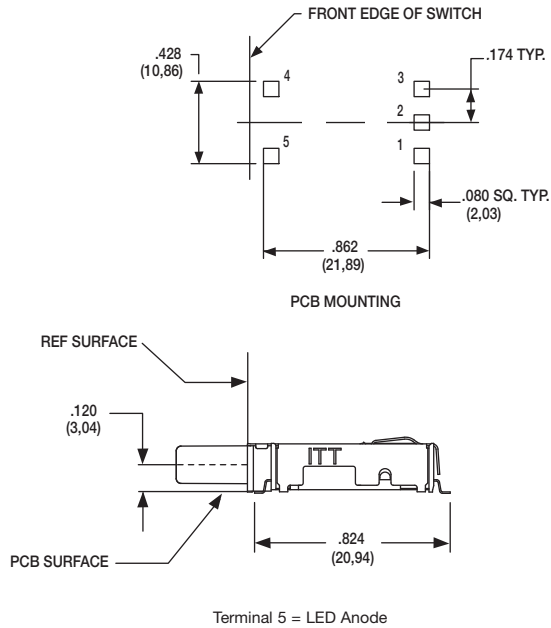
# C&K ELUM™ Series Right Angle Illuminated Latching Pushbutton



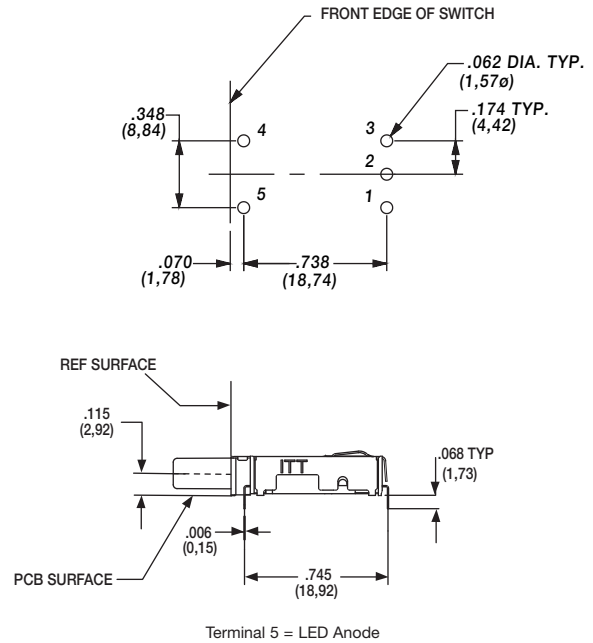
A

Pushbutton

## SA RIGHT ANGLE, SURFACE MOUNT



## TH RIGHT ANGLE, PC THRU-HOLE



## CONTACT MATERIAL

OPTION CODE	RoHS COMPLIANT *	RoHS COMPATIBLE *	CONTACT MATERIAL	TERMINAL PLATING	RATINGS
<b>Q</b>	YES	YES	SILVER WITH GOLD FLASH	SILVER WITH GOLD FLASH	250 mA

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

FIXED CONTACTS AND TERMINALS: Stainless steel, silver plated with gold flash

MOVABLE CONTACTS: Copper alloy, silver plated with gold flash

**NOTE:** Any models supplied with Q, contact material are RoHS compliant.

For the latest information regarding RoHS compliance, please go to: [www.ittcannon.com/rohs](http://www.ittcannon.com/rohs).

## ILLUMINATION

OPTION CODE	ILLUMINATION TYPE	TYPICAL INTENSITY* MIN MAX	PEAK WAVELENGTH	VIEWING ANGLE
		(mcd)	(nm)	
<b>(NONE)</b>	Model without illumination	N/A	N/A	N/A
<b>1</b>	LED Super White	4,000 5,000	N/A	30°
<b>2</b>	LED Bi-Color – Red (Green)	10 20	635/565	60°
<b>3</b>	LED Red	4 8	700	60°
<b>5</b>	LED Amber	35 50	610	60°
<b>6</b>	LED Green	35 50	565	60°
<b>7</b>	LED Super Blue	800 1,500	470	22°
<b>8</b>	LED Bi-Color – Amber (Green)	10 10	585/565	60°

\*LED FORWARD CURRENT: 20 mA

LED FORWARD VOLTAGE: 2.0 V TYP.

LED REVERSE VOLTAGE: 5.0 V MAX

\* For information on specific and custom LED, please contact Customer Service.



Third Angle  
Projection



A

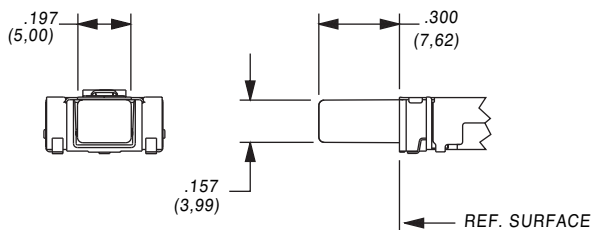
Pushbutton

# C&K ELUM™ Series Right Angle Illuminated Latching Pushbutton

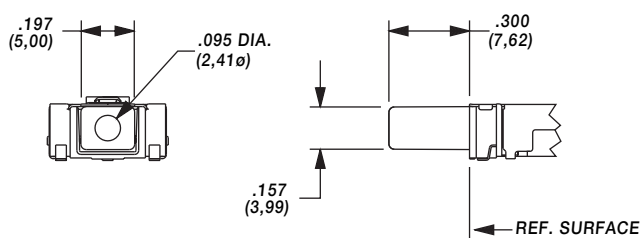
ACTUATOR STYLE\*



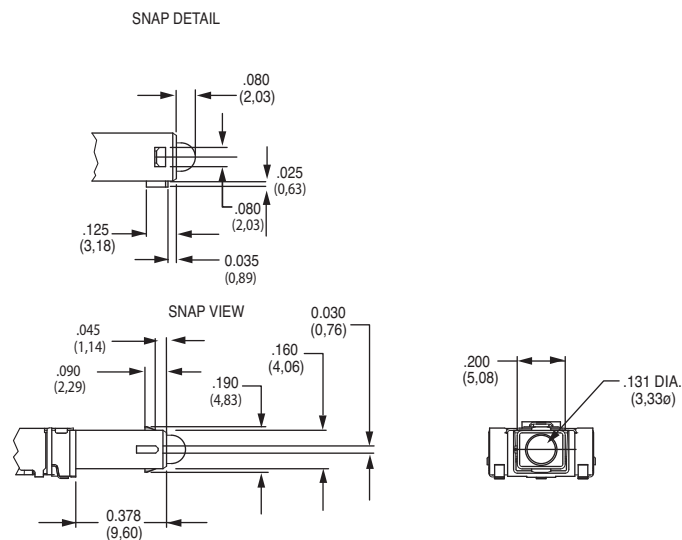
## C02 BLACK WITHOUT WINDOW



## C12 BLACK WITH WINDOW

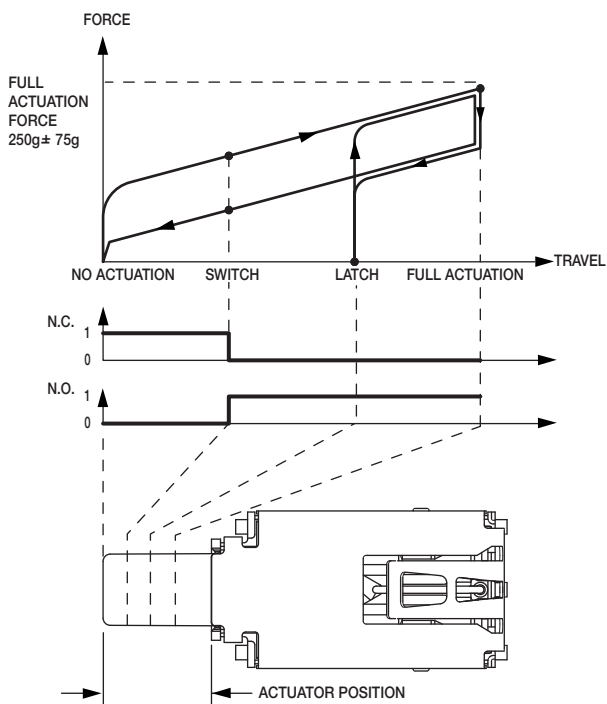


## C22 BLACK WITH WINDOW AND SNAP FEATURE TO ACCEPT CUSTOM CAP



\* Custom actuators available, please contact Customer Service.

## FORCE TRAVEL DIAGRAM



	ACTUATOR POSITION	
NO ACTUATION	.300 ± .020	7,6 ± 0.5mm
SWITCH	.233 ± .020	5,9 ± 0.5mm
LATCH	.169 ± .020	4,3 ± 0.5mm
FULL ACTUATION	.100 ± .020	2,5 ± 0.5mm

## TAPE & REEL

