

**LEAD FREE  
COMPATIBLE OPTION**

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



**A**  
Pushbutton

## Features/Benefits

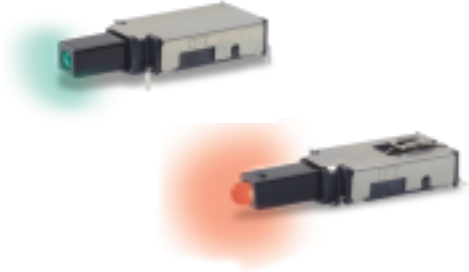
- SPDT (N.O. & N.C.)
- Low height above PCB
- Reliable self-cleaning contact
- Surface-mount or thru-hole PCB
- Standard or custom actuator
- Central LED illumination
- Latching or Momentary
- Long travel. Smooth feel
- RoHS compliant and compatible

## 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: ≥ 250 Vrms  
CONTACT RESISTANCE: ≤ 50 mΩ  
INSULATION RESISTANCE: ≥ 10<sup>9</sup> Ω  
BOUNCE TIME: ≤ 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

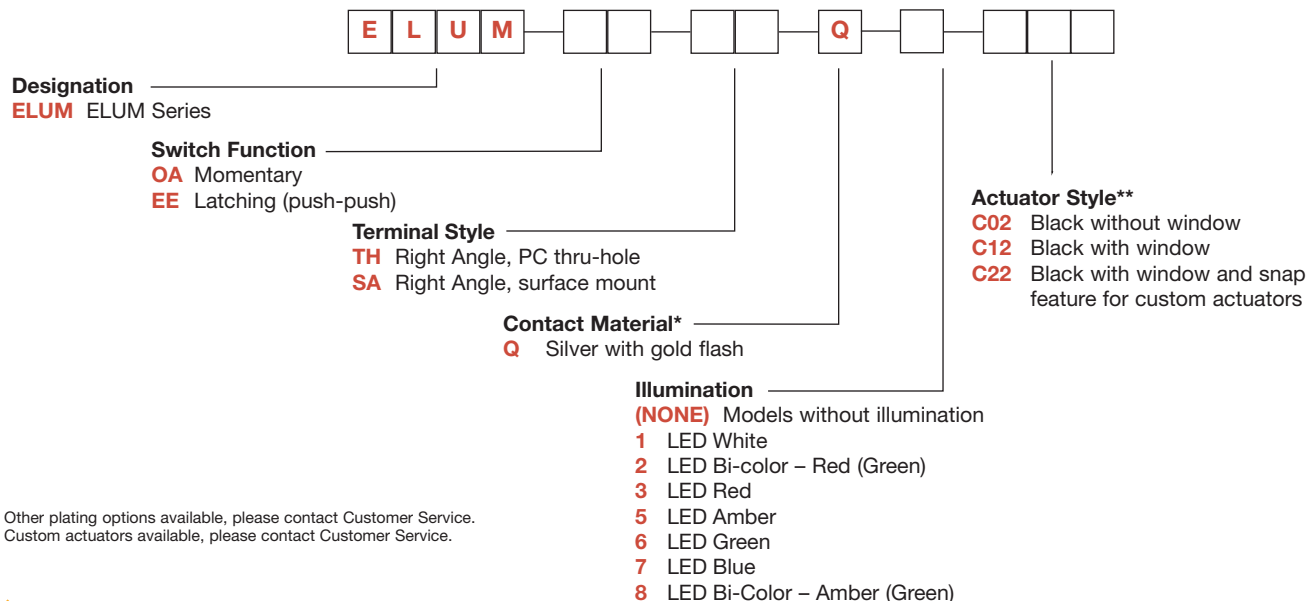
"SA" Terminal Style SMT: Tape and reel per EIA 481-2 (450/reel)  
"TH" Terminal Style PC: Tray (60/tray)

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



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



Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

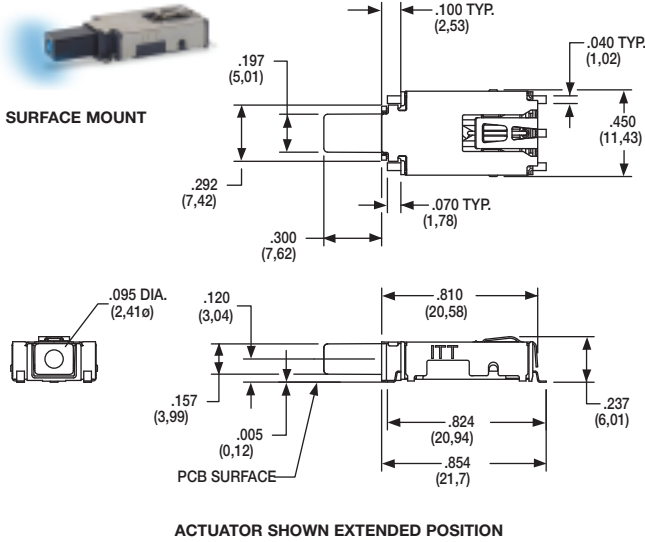


Pushbutton  
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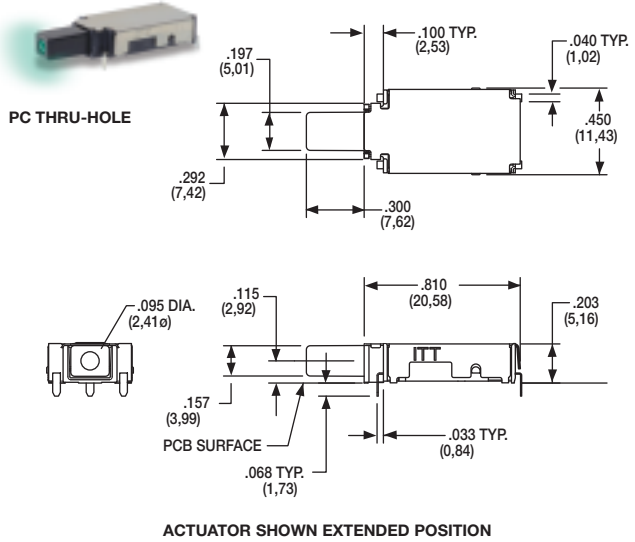
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## STANDARD OPTIONS

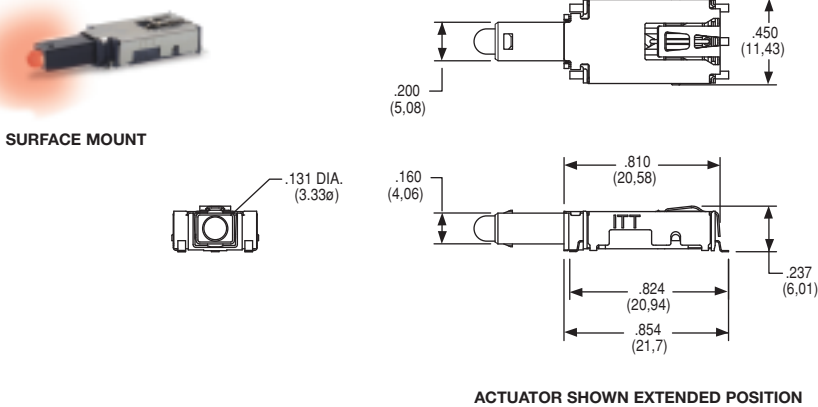
### ELUMEESAQ7C12



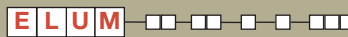
### ELUMOATHQ6C12



### ELUMEESAQ3C22



## DESIGNATION



**ELUM** ELUM SERIES, Illuminated Latching Pushbutton

## SWITCH FUNCTION



POSITION 1



POSITION 2

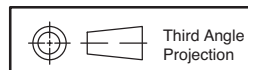


SCHEMATIC

OPTION CODE	NO. OF POLES	SWITCH FUNCTION	CONNECTED TERMINALS	SWITCH FUNCTION	CONNECTED TERMINALS	<p>NO 2 3 C 4 NC SPDT 5 1 + Anode - Cathode</p>
<b>OA</b>	SP Momentary	ON	3 - 4	ON (Mom.)	3 - 2	
<b>EE</b>	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.



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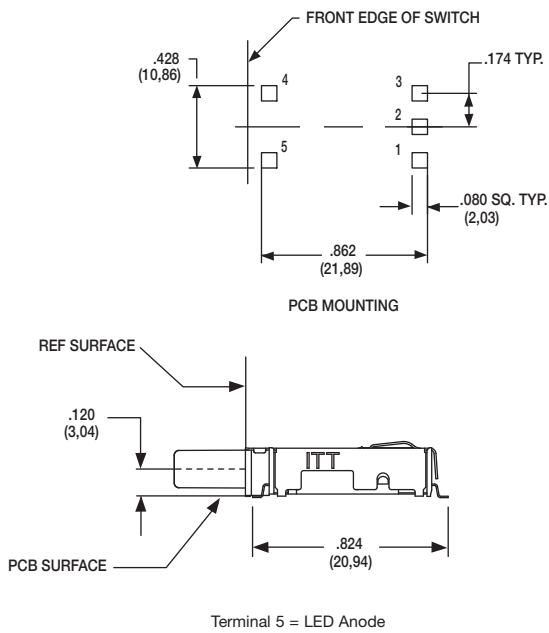
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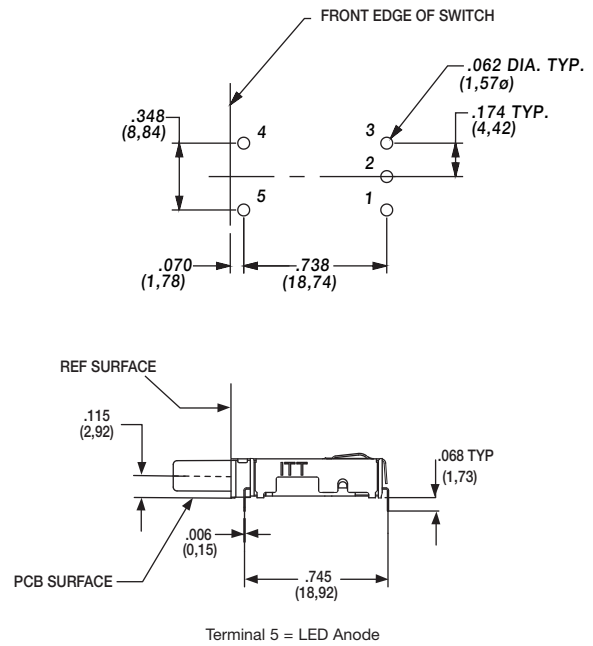
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Pushbutton

## 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

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## ILLUMINATION

OPTION CODE	ILLUMINATION TYPE	TYPICAL INTENSITY*		PEAK WAVELENGTH	VIEWING ANGLE
		MIN	MAX		
		(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.



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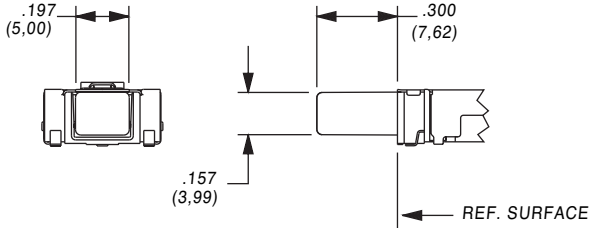
## ACTUATOR STYLE\*



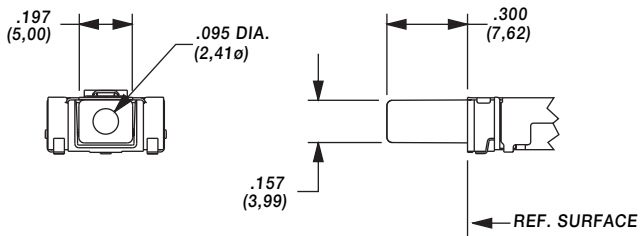
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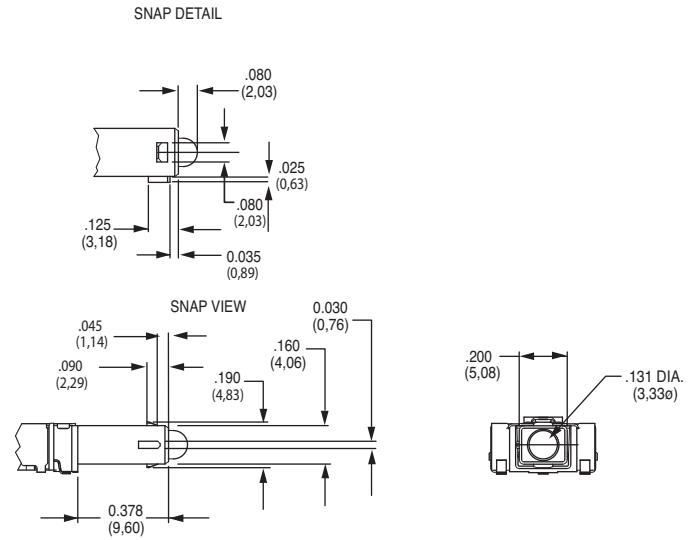
### C02 BLACK WITHOUT WINDOW



### C12 BLACK WITH WINDOW

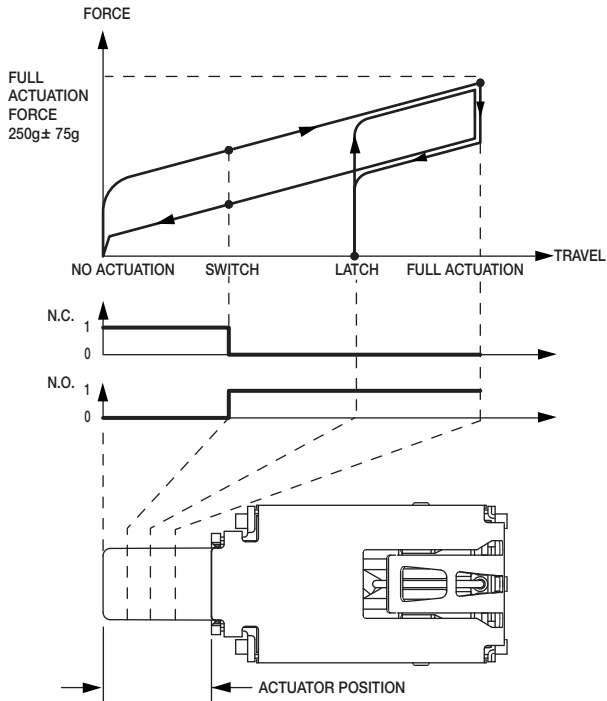


### C22 BLACK WITH WINDOW AND SNAP FEATURE TO ACCEPT CUSTOM CAP



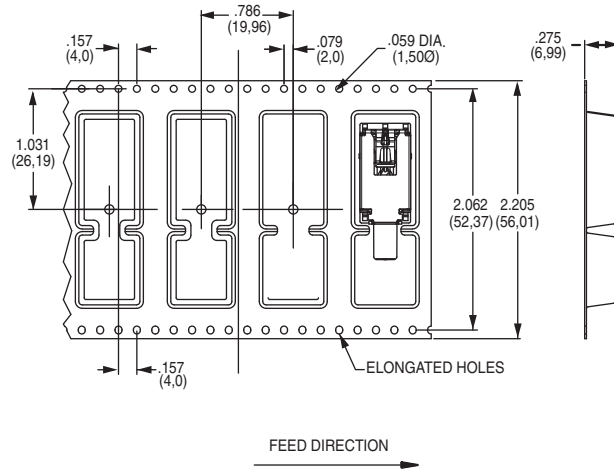
\* Custom actuators available, please contact Customer Service.

## 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



Third Angle Projection

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