

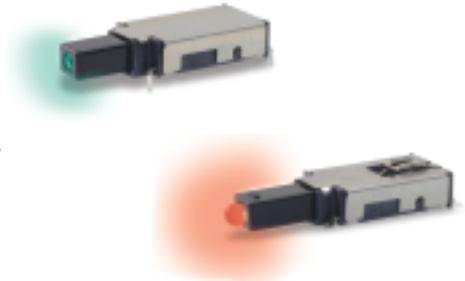
## Features/Benefits

- **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**

Patent Numbers  
6,974,924 B2 US  
EP1583118B1 Europe



## 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 80°C.  
STORAGE TEMPERATURE: -40°C TO 80°C.  
RELATIVE HUMIDITY: 90% R.H. @ 80°C.  
OPERATING LIFE: 30,000 Cycles.  
VIBRATION: Per EIA 186-E Method  
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.

**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.

<b>Designation</b> _____	<b>Switch Function</b> _____	<b>Terminal Style</b> _____	<b>Contact Material*</b> _____	<b>Illumination</b> _____	<b>Actuator Style**</b> _____
<b>ELUM</b> ELUM Series	<b>OA</b> Momentary <b>EE</b> Latching (push-push)	<b>TH</b> Right Angle, PC thru-hole <b>SA</b> Right Angle, surface mount	<b>Q</b> Silver with gold flash	<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)	<b>C02</b> Black without window <b>C12</b> Black with window <b>C22</b> Black with window and snap feature for custom actuators

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



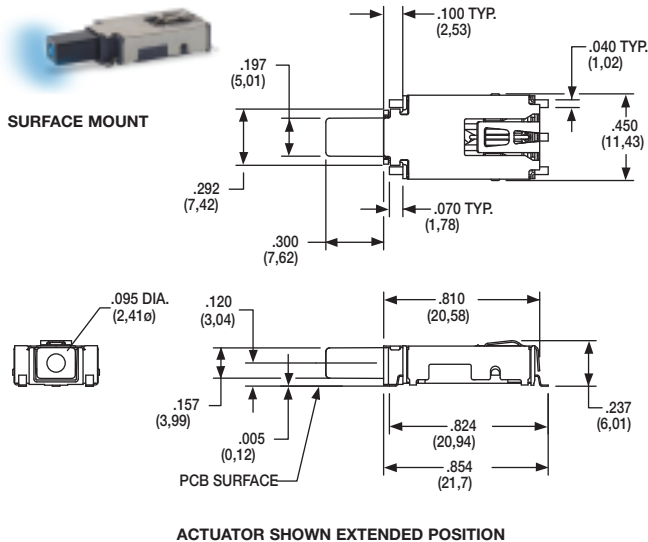
A

Pushbutton

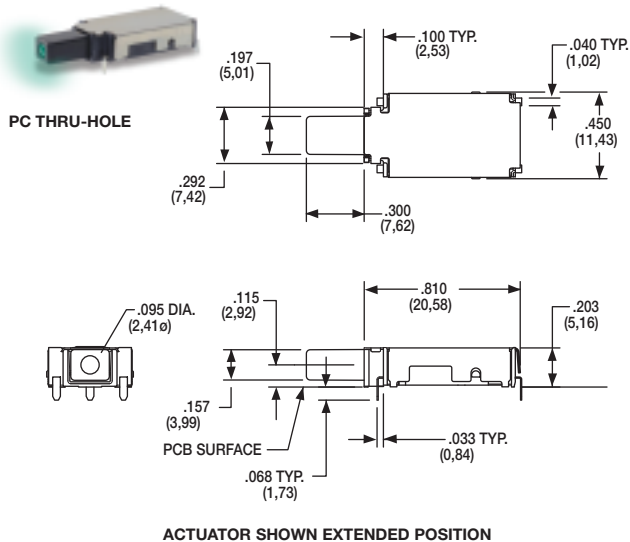
# ELUM™ Series Right Angle Illuminated Latching Pushbutton

## STANDARD OPTIONS

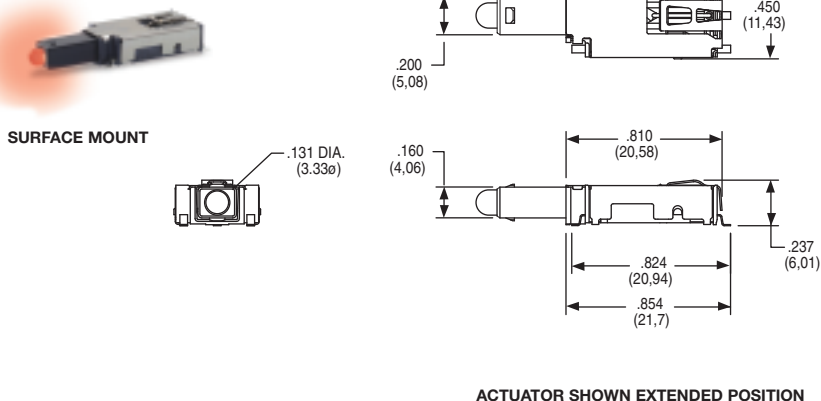
### ELUMEESAQ7C12



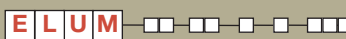
### ELUMOATHQ6C12



### ELUMEESAQ3C22



## DESIGNATION



**ELUM** ELUM SERIES, Illuminated Latching Pushbutton

## SWITCH FUNCTION



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

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

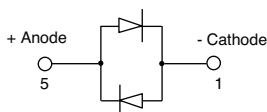
For SPST N.C. function, only terminals 3 & 4 are used.

Circuit: Make before break

LED pins 1 & 5 are independent of switch function.

#### NOTE:

For bi-color LED's the polarity must be reversed to alternate the color



Third Angle  
Projection

**C&K**

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

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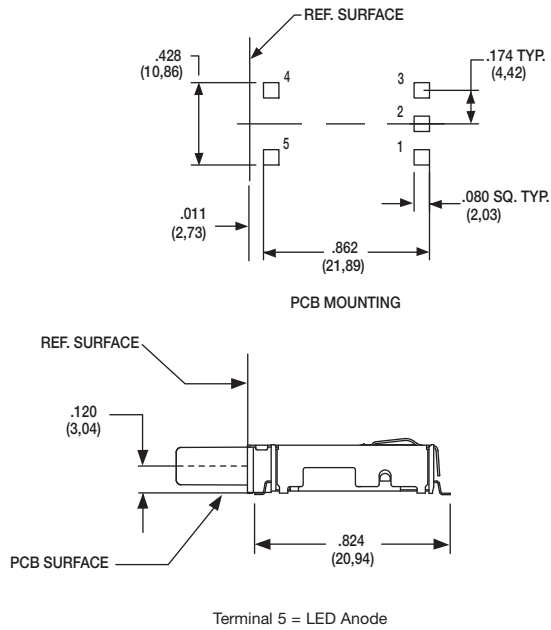
# ELUM™ Series Right Angle Illuminated Latching Pushbutton



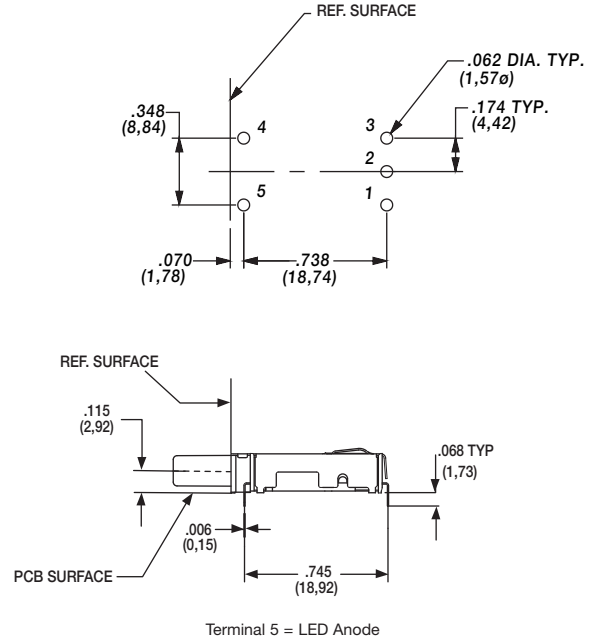
A

Pushbutton

## SA RIGHT ANGLE, SURFACE MOUNT



## TH RIGHT ANGLE, PC THRU-HOLE



## CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS
<b>Q</b>	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.

## ILLUMINATION

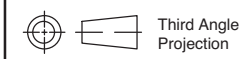
OPTION CODE	ILLUMINATION TYPE	TYPICAL INTENSITY* MIN MAX		PEAK WAVELENGTH	VIEWING ANGLE
		(mcd)		(nm)	
<b>(NONE)</b>	Model without illumination	N/A		N/A	N/A
<b>1</b>	LED Super White	4,000	5,000	N/A	30°
<b>2</b>	LED Bi-Color – Red (Green)	10	20	635/565	60°
<b>3</b>	LED Red	4	8	700	60°
<b>5</b>	LED Amber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



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# ELUM™ Series Right Angle Illuminated Latching Pushbutton

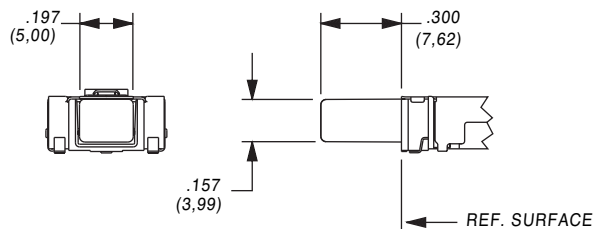
## ACTUATOR STYLE\*



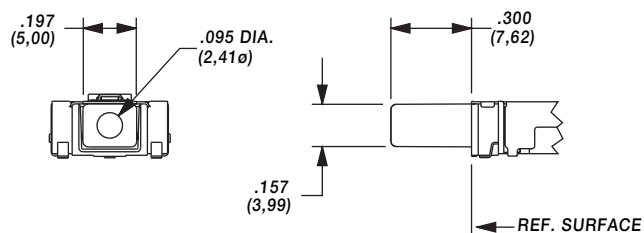
Pushbutton

A

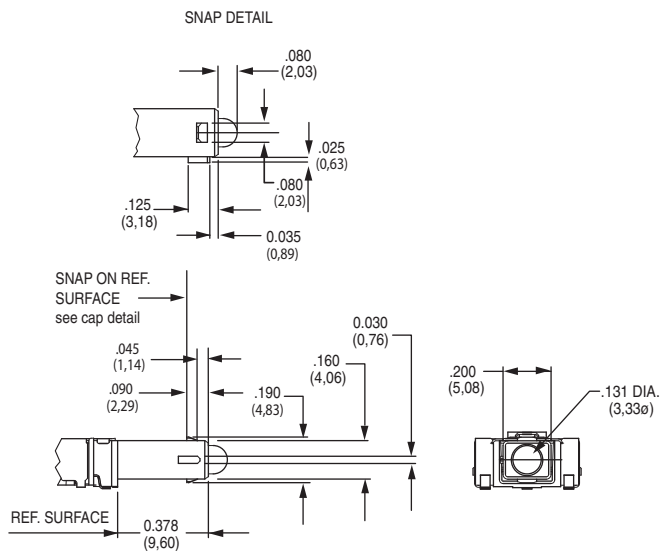
### C02 BLACK WITHOUT WINDOW



### C12 BLACK WITH WINDOW

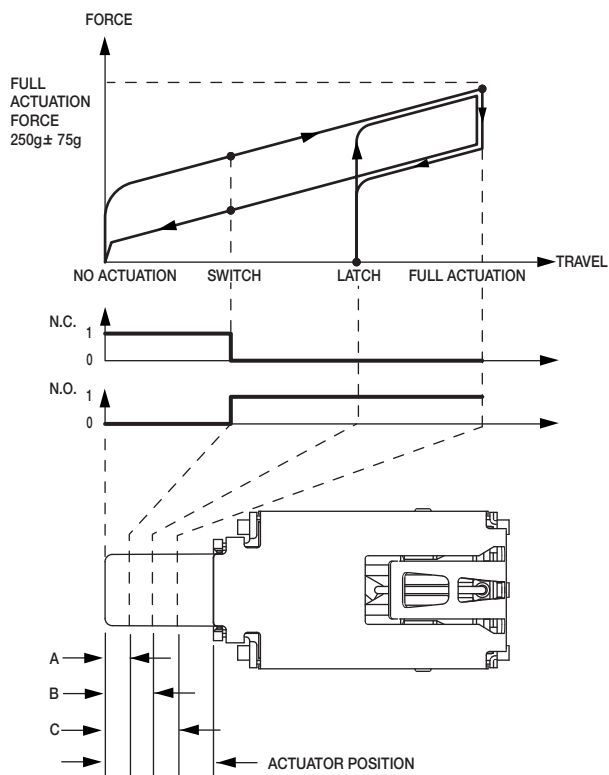


### C22 BLACK WITH WINDOW AND SNAP FEATURE TO ACCEPT CUSTOM CAP



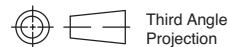
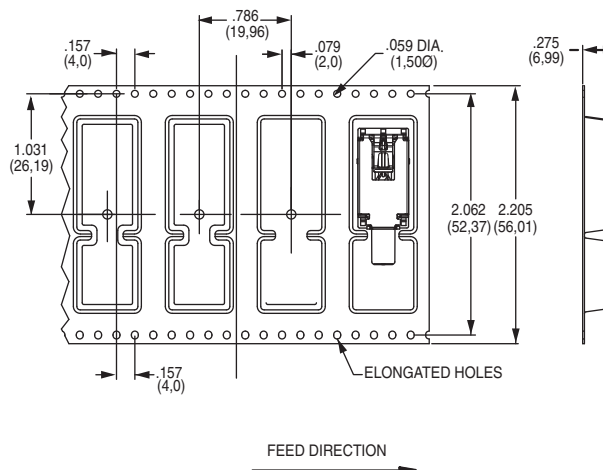
\* Custom actuators available, please contact Customer Service.

## FORCE TRAVEL DIAGRAM



ACTUATOR POSITION			
A	SWITCH	.067 ± .020	1,7 ± 0.5mm
B	LATCH	.131 ± .020	3,3 ± 0.5mm
C	FULL ACTUATION	.200 ± .020	5,1 ± 0.5mm

## TAPE & REEL



**C&K**

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# ELUM™ Series Right Angle Illuminated Latching Pushbutton



A

Pushbutton

## AVAILABLE HARDWARE

Cap



**PART NO.**

**957C00000** High temperature black cap with universal standby symbol

**956C02000** High temperature black cap with no symbol

Material: 4/6 Nylon SMT compatible

Cap



**PART NO.**

**181D01000** Paint and Laser Etched with black paint and universal standby symbol

Material: Clear polycarbonate

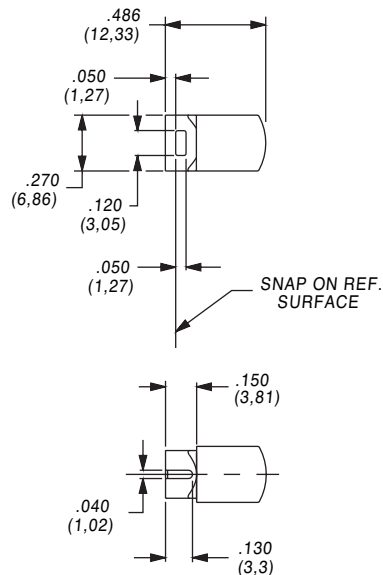
Cap



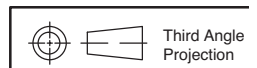
**PART NO.**

**181D00000** Paint and laser etched with white paint underlay and black paint with universal standby symbol.

Material: Clear polycarbonate



**NOTE:** Caps are for use with the C22 actuator style. Other colors and symbols available, consult Customer Service Center.



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Specifications and dimensions subject to change

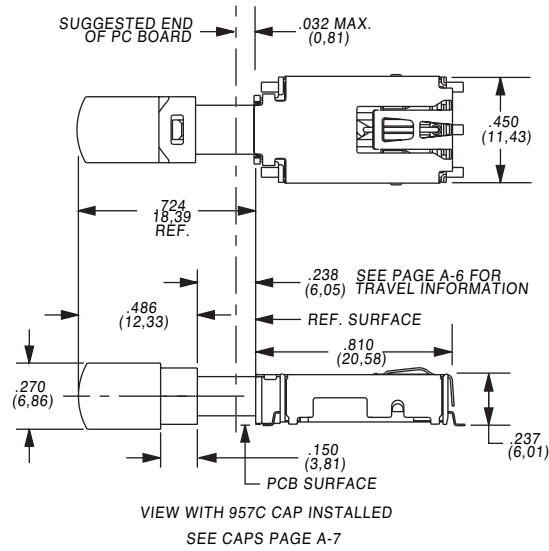


A

Pushbutton

# ELUM™ Series Right Angle Illuminated Latching Pushbutton

## CAP INSTALLATION



Third Angle  
Projection

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