

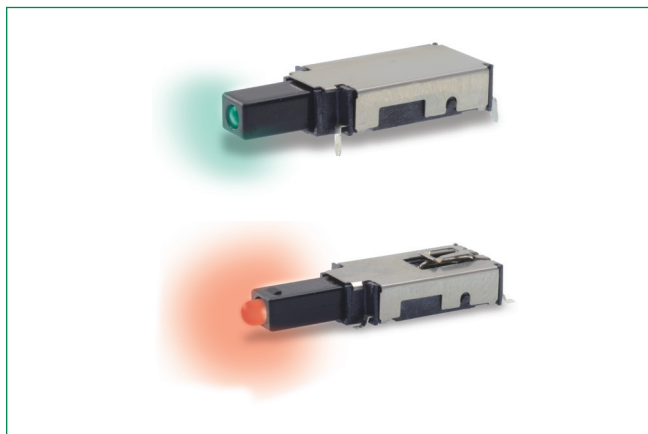


THE DATASHEET OF ELUMEEQAQ6C12



ELUM™ Series

Right Angle Illuminated Latching Pushbutton



Materials

Fixed Contacts	Stainless steel, silver plated with gold flash
Terminals	Stainless steel, silver plated
Movable Contacts	Copper alloy, silver plated with gold flash
Base	Glass filled LCP (UL94V-0)
Actuator	Glass filled nylon 4/6 (UL94V-0)
Cover	Stainless steel

Electrical Characteristics

Max. 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 ⁹ Ω
Bounce Time	≤ 1 ms
LED Specifications	See page 4

Mechanical Characteristics

Operating Force	2.5 N at Full Travel
Switching Travel	0.067" (1.7 mm)
Latch Travel	0.131" (3.6 mm)
Full Travel	0.200" (5.1 mm)

Packaging

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

Description

The ELUM series of right angle illuminated latching pushbutton switches can be found in the telecommunications, automotive, medical and computing equipment industries – and are used often in instrumentation, electronics, server, modem and storage applications. ELUM switches feature a low height above PCB, reliable self-cleaning contacts and central LED illumination. Additionally, ELUMs are available with either a standard or custom actuator, with a surface-mount or thru-hole and with either latching or momentary switch designs.

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

Applications

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

Operating & Process 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
Solderability	According to MIL-STD-202 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

Notes:

Any models supplied with Q, contact material are RoHS compliant. Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, please contact Customer Service.

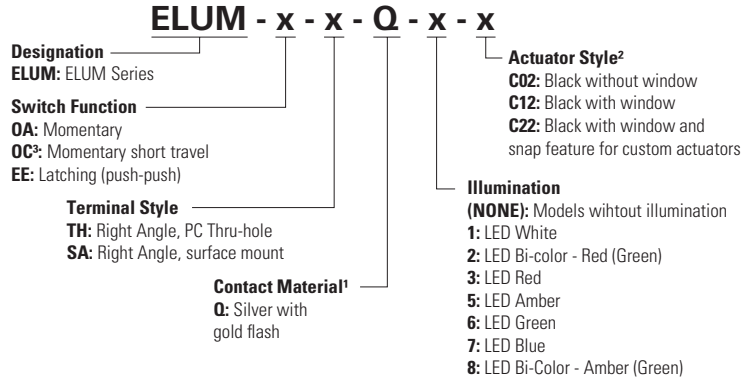
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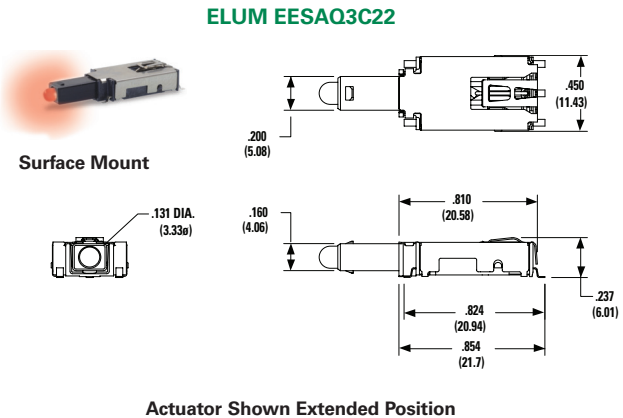
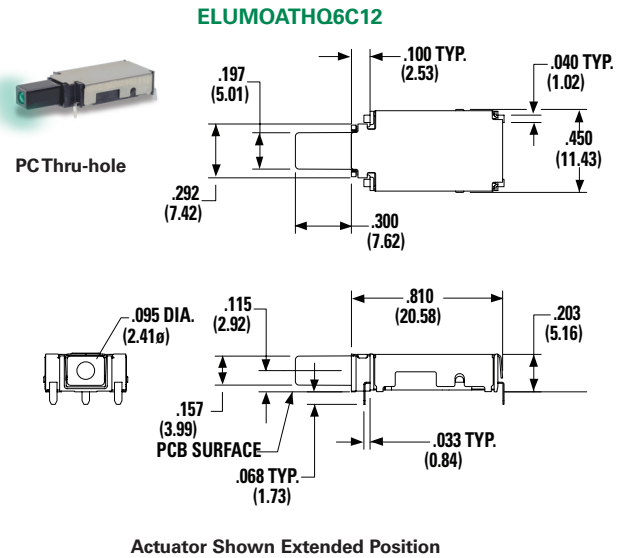
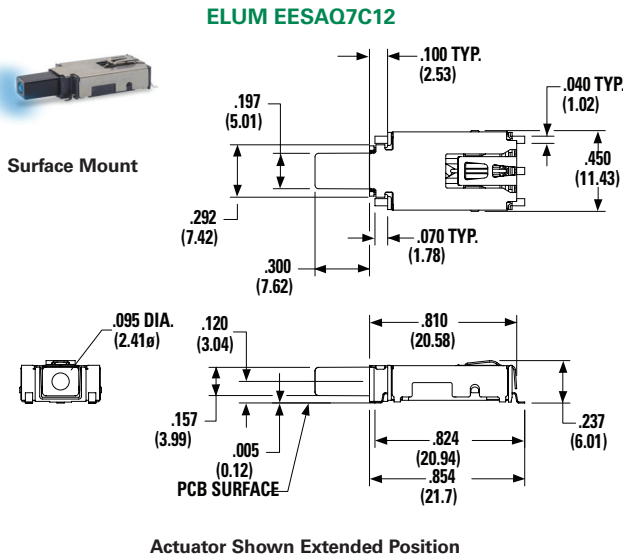
Ordering Number

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



- Notes:**
- Other plating options available, please contact Customer Service.
 - Custom actuators available, please contact Customer Service.
 - Short travel available in momentary only.

Standard Options Dimension inches (mm)



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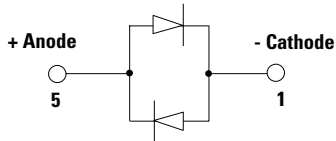


Switch Function

Option Code	No. Of Poles	Position 1		Position 2		Schematic
		Switch Function	Connected Terminals	Switch Function	Connected Terminals	
OA / OC	SP Momentary	ON	3-4	ON (mom.)	3-2	
EE	SP Latching (Push- Push)			ON		

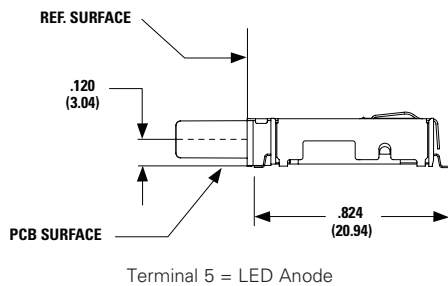
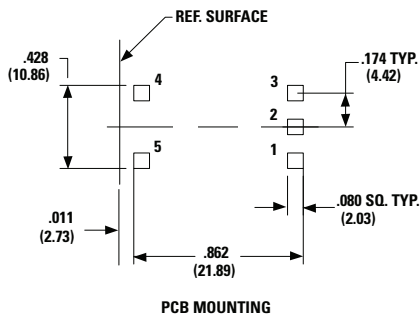
Notes:
 For SPST N.O. Function, only terminals 3 & 2 are used. For SPST N.C. function, only terminals 3 & 4 are used. Circuit: Make before break.
 For bi-color LED's the polarity must be reversed to alternate the color.

LED pins 1 & 5 are independent of switch function.

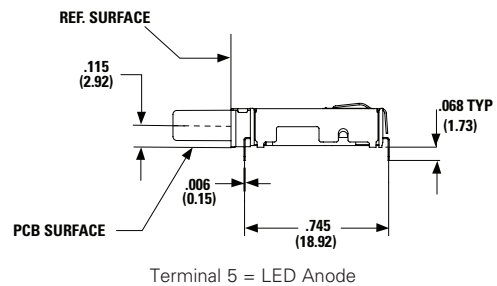
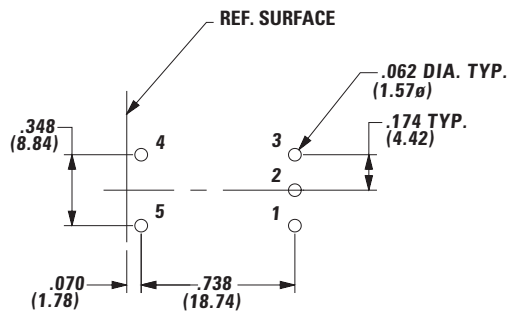


Terminal Style Dimensions inches (mm)

SA Right Angle, Surface Mount



TH Right Angle, PC Thru-hole



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Contact Material

Option Code	Contact Material	Terminal Plating	Ratings
Q	Silver with Gold flash	Silver	250 mA

Notes:

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

Illumination

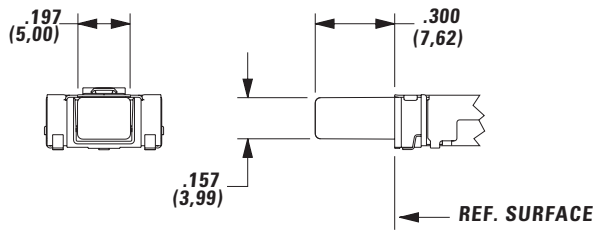
Option Code	Illumination Type	Typical Intensity ¹		Peak Wavelength	Vf Forward Voltage
		Min.	Max.		
-	-	(mcd)		(nm)	V
0	Model without illumination	N/A		N/A	-
1	LED Super White	4,000	5,000	N/A	3.5
2	LED Bi-Color - Red (Green)	10	20		
3	LED Red	4	8	700	2.0
5	LED Amber	35	50	610	2.0
6	LED Green	35	50	565	2.0
7	LED Super Blue	800	1,500	470	3.8
8	LED Bi-Color - Amber (Green)	10		585/565	2.0

Notes:

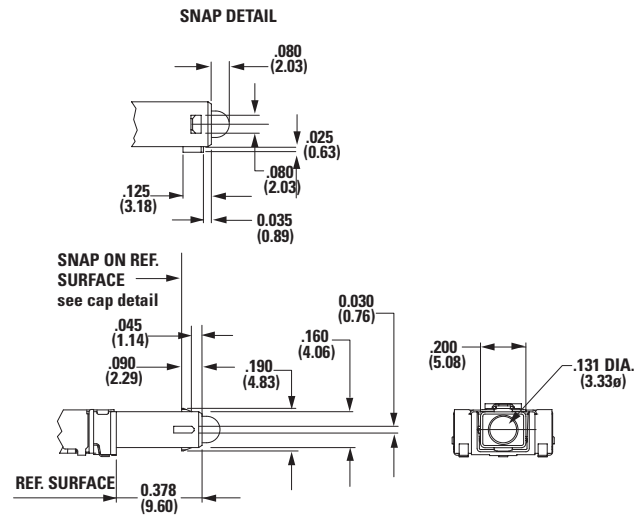
1. LED Forward Current: 20 mA. LED Forward Voltage: see chart above. LED Reverse Voltage: 5.0 V Max. For information on specific and custom LED, please contact Customer Service.

Actuator Style

C02 Black Without Window Dimensions inches (mm)

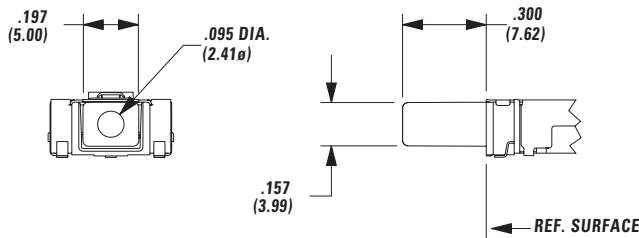


C22 Black With Window and Snap Feature to Accept Custom Cap Dimensions inches (mm)



Note:
Custom actuators available, please contact Customer Service.

C12 Black With Window Dimensions inches (mm)

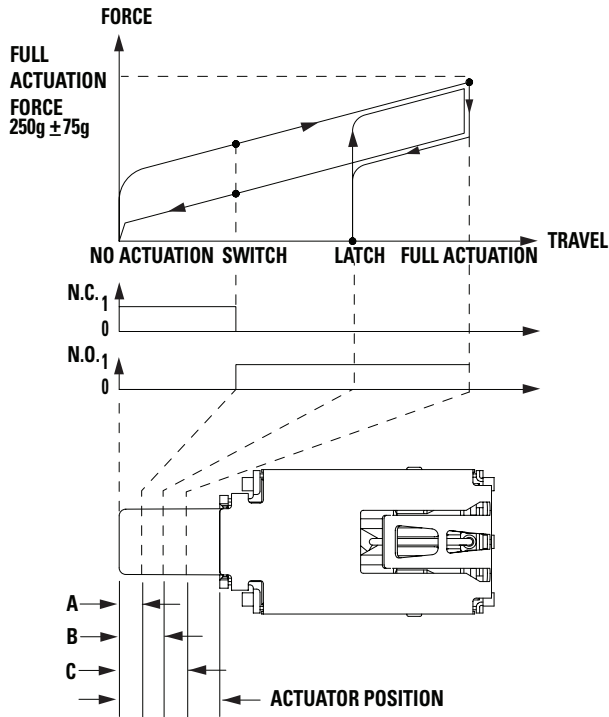


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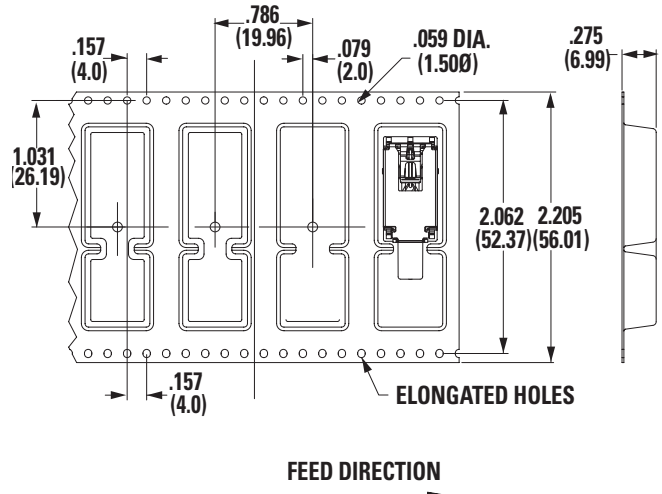
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Force Travel Diagram



Tape & Reel



OA, EE Actuator Position			
A	Switch Point	0.067 ± 0.020	1.7 ± 0.5mm
B	Latch	0.131 ± 0.020	3.3 ± 0.5mm
C	Full Actuation	0.200 ± 0.020	5.1 ± 0.5mm
OC Actuator Position			
A	Switch Point	0.067 ± 0.020	1.7 ± 0.5mm
C	Full Actuation	0.098 ± 0.020	2.5 ± 0.5mm

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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

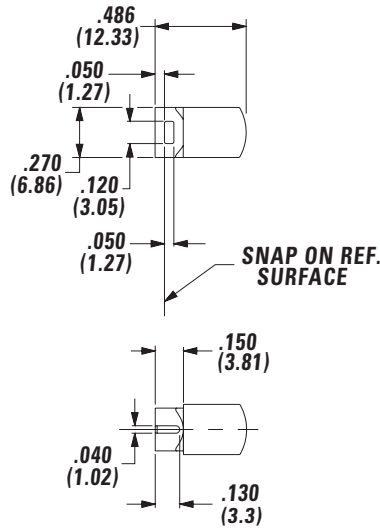


Part No.
181D01000
Paint and Laser Etched with black paint and universal standby symbol
Material: Clear polycarbonate

Cap

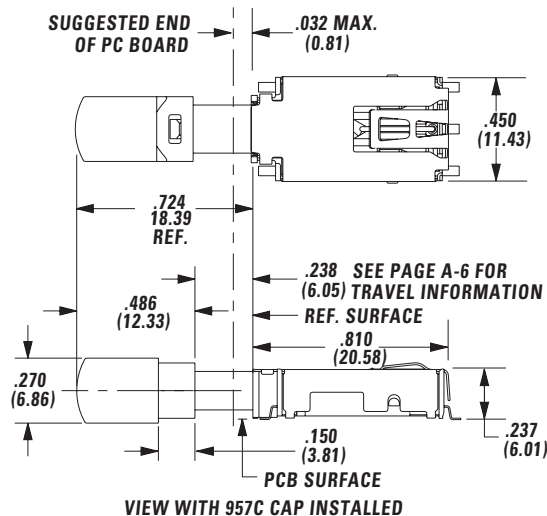


Part No.
181D00000
Paint and laser etched with white paint underlay and black paint with universal standby symbol.
Material: Clear polycarbonate



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



Cap Installation



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