ELUM™ Series
Right Angle Illuminated Latching 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

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
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: ≥ 109 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 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
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.

Designation
ELUM ELUM Series

Switch Function
OA Momentary
OC*** Momentary short travel
EE Latching (push-push)

Terminal Style
TH Right Angle, PC thru-hole
SA Right Angle, surface mount

Contact Material*
Q Silver with gold flash

Illumination
(NONE) Models without illumination
1 LED White
2 LED Bi-color – Red (Green)
3 LED Red
5 LED Amber
6 LED Green
7 LED Blue
8 LED Bi-Color – Amber (Green)

Actuator Style**
C02 Black without window
C12 Black with window
C22 Black with window and snap feature for custom actuators

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

Patent Numbers
6,974,924 B2 US
EP1583118B1 Europe

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

www.ckswitches.com

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ELUM™ Series
Right Angle Illuminated Latching Pushbutton

STANDARD OPTIONS

ELUMESAQ7C12

SURFACE MOUNT

ACTUATOR SHOWN EXTENDED POSITION

ELUMOATHQ6C12

PC THRU-HOLE

ACTUATOR SHOWN EXTENDED POSITION

ELUMESAQ3C22

SURFACE MOUNT

ACTUATOR SHOWN EXTENDED POSITION

DESIGNATION

ELUM SERIES, Illuminated Latching Pushbutton

SWITCH FUNCTION

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>NO. OF POLES</th>
<th>SWITCH FUNCTION</th>
<th>CONNECTED TERMINALS</th>
<th>SWITCH FUNCTION</th>
<th>CONNECTED TERMINALS</th>
<th>SCHEMATIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>OA / OC</td>
<td>SP</td>
<td>Momentary</td>
<td>ON</td>
<td>3 – 4</td>
<td>ON (Mom.)</td>
<td>SPDT 5 C</td>
</tr>
<tr>
<td></td>
<td>Latching (Push-Push)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3C</td>
</tr>
<tr>
<td>EE</td>
<td>SP</td>
<td>Momentary</td>
<td>ON</td>
<td>3 – 4</td>
<td>ON</td>
<td>4 NC - 3C</td>
</tr>
</tbody>
</table>

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

NOTE:
For bi-color LED’s the polarity must be reversed to alternate the color

LED pins 1 & 5 are independent of switch function.
ELUM™ Series
Right Angle Illuminated Latching Pushbutton

TERMINAL STYLE

SA RIGHT ANGLE, SURFACE MOUNT

TH RIGHT ANGLE, PC THRU-HOLE

CONTACT MATERIAL

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>CONTACT MATERIAL</th>
<th>TERMINAL PLATING</th>
<th>RATINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>SILVER WITH GOLD FLASH</td>
<td>SILVER</td>
<td>250 mA</td>
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</tbody>
</table>

* 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

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>ILLUMINATION TYPE</th>
<th>TYPICAL INTENSITY*</th>
<th>PEAK WAVELENGTH</th>
<th>Vf Forward Voltage</th>
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<tbody>
<tr>
<td></td>
<td>MIN</td>
<td>MAX</td>
<td>(mcd)</td>
<td>(nm)</td>
</tr>
<tr>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1</td>
<td>4,000</td>
<td>5,000</td>
<td>635/665</td>
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<tr>
<td>2</td>
<td>10</td>
<td>20</td>
<td>700</td>
<td>2.0</td>
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<tr>
<td>3</td>
<td>4</td>
<td>8</td>
<td>610</td>
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<tr>
<td>5</td>
<td>35</td>
<td>50</td>
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<tr>
<td>6</td>
<td>35</td>
<td>50</td>
<td>565</td>
<td>2.0</td>
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<tr>
<td>7</td>
<td>800</td>
<td>1,500</td>
<td>470</td>
<td>3.8</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>10</td>
<td>585/665</td>
<td>2.0</td>
</tr>
</tbody>
</table>

*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.
ELUM™ Series
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ACTUATOR STYLE*

C02 BLACK WITHOUT WINDOW

C12 BLACK WITH WINDOW

C22 BLACK WITH WINDOW AND SNAP FEATURE TO ACCEPT CUSTOM CAP

FORCE TRAVEL DIAGRAM

TAPE & REEL

* Custom actuators available, please contact Customer Service.

Specifications and dimensions subject to change

Dimensions are shown: Inches (mm)

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AVAILABLE HARDWARE

PART NO. 957C00000 High temperature black cap with universal standby symbol
Material: 4/6 Nylon SMT compatible

PART NO. 956C02000 High temperature black cap with no symbol

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

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.

CAP INSTALLATION

SEE PAGE A-6 FOR TRAVEL INFORMATION