C & K 7000 Series
Miniature Toggle Switches

Features/Benefits
- Multi-pole and multi-position
- Wide variety of actuator and termination options
- Epoxy sealed terminals prevent contamination during soldering

Specifications
CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: 5 AMPS @ 120 V AC or 28 V DC; 2 AMPS @ 250 V AC. See page F-16 for additional ratings.
ELECTRICAL LIFE: 7X01 and UX1 models: 100,000 make-and-break cycles at full load. All other models: 40,000 cycles.
CONTACT RESISTANCE: Below 10 mΩ typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.
INSULATION RESISTANCE: 10^9 Ω min.

Dielectric Strength: 1000 Vrms min. @ sea level.
Operating Temperature: -30ºC to 85ºC.

For materials see page F-4.

Build-A-Switch
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages F-4 thru F-16. For additional options not shown in catalog, consult our Customer Service Center.

Switch Function
7101 (STD) SP On-None-On
7103 (STD) SP On-Off-On
7105 SP Mom.-Off-Mom.
7107 SP On-Off-Mom.
7108 SP On-None-Mom.
7109 SP None-On-Mom.
7201 (STD) DP On-None-On
7203 (STD) DP On-Off-On
7205 DP Mom.-Off-Mom.
7206 DP On-None-Mom.
7211 (STD) DP On-None-On
7213 DP On-Mom.
7215 DP Mom.-Mom.
7217 (STD) 3P On-None-On
7303 3P On-Off-On
7305 3P Mom.-Off-Mom.
7307 3P Off-Off-Mom.
7308 3P Off-Off-Mom.
7401 (STD) 4P On-None-On
7403 4P On-Off-On
7405 4P Mom.-Off-Mom.
7407 4P Off-Off-Mom.
7408 4P On-None-Mom.
7411 4P On-Off-On
7413 4P On-Mom.
7415 4P Mom.-Mom.

Actuator
M (STD) 200° high
P3 (STD) Flattened, anti-rotation, .450” high
S (STD) .420” high
T (STD) .687” high, 15/32 bushing
K2 Locking lever, .704” high
K9 Locking lever, .704” high
K12 Locking lever, .732” high
K19 Locking lever, .732” high
L .840” high
L1 .640” high
L1P Anti-rotation, .640” high
L2 .550” high
L2P Anti-rotation, .550” high
L3 Plastic, .840” high
L3P Plastic, anti-rotation, .840” high
L40 Lever handle without cap
L41 .531” high lever handle with cap
L42 .838” high lever handle with cap
MP Anti-rotation, .200” high
P1 Flattened, anti-rotation, .840” high
P4 Flattened, anti-rotation, .250” high
SP Anti-rotation, .420” high
T1 .487” high, 15/32 bushing
T1P Anti-rotation, .487” high, 15/32 bushing
T2P Flattened, anti-rotation,.610” high, 15/32 bushing.
TP Anti-rotation, .687” high, 15/32 bushing

Bushings
D (STD) .280 high, keyway
H (STD) .296 high, flat
Y (STD) .350 high, keyway

Contact Material
B (STD) Gold
Q (STD) Silver
K Gold, tin-lead
Q Gold over silver

Actuator Color/Finish
NONE (STD) Bright chrome
1 White
2 Black
3 Red
5 Satin chrome

KXX Actuator Color/Finish
NONE (STD) Natural aluminum
0 (STD) Natural aluminum with black bushing
2 Black anodized aluminum
3 Red anodized aluminum
7 Blue anodized aluminum

Terminations
A (STD) Right angle, PC thru-hole
AV2 (STD) Vert. right angle, PC thru-hole
C (STD) PC Thru-Hole
V3 (STD) .460 high, V-bracket
Z (STD) Solder lug
A2 Right angle, PC thru-hole
A3 Right angle, PC thru-hole
A4 Right angle, PC thru-hole
AV3 Vert. right angle, PC thru-hole
AW1 Right angle, extended, PC thru-hole
AW3 Right angle, extended, PC thru-hole
AW4 Right angle, extended, PC thru-hole

Bushing Finish
NONE (STD) Nickel on all bushings (except DB, satin chrome)
2 Black
3 Red
7 Blue

Dimensions are shown: IN (mm)
Dimensions subject to change

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F-3
## C&K 7000 Series
### Miniature Toggle Switches

### Materials
- **CASE:** Glass filled nylon 6/6, flame retardant, heat stabilized, or dialyl phthalate (DAP) (UL 94V-0).
- **ACTUATOR:** Brass, chrome plated.
- **BUSHING:** Brass or zinc, nickel plated.
- **HOUSING:** Stainless steel.
- **SWITCH SUPPORT:** Brass or steel, tin plated.
- **END CONTACTS:** B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page F-16 for additional contact materials.

### CENTER CONTACTS & ALL TERMINALS:
- B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See above for additional contact materials.
- **TERMINAL SEAL:** Epoxy.
- **HARDWARE:** Nut & Locking Ring: Brass, nickel plated. Lockwasher: Steel, nickel plated.

**NOTE:** Materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### SWITCH FUNCTION

<table>
<thead>
<tr>
<th>NO. POLES</th>
<th>MODEL NO.</th>
<th>UL/CSA MODEL NO.</th>
<th>CONNECTED TERMINALS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>POS. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>KEYWAY</td>
</tr>
<tr>
<td>SP</td>
<td>7101 (STD.)</td>
<td>U11</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7103 (STD.)</td>
<td>U13</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7105</td>
<td>U15</td>
<td>MOM.</td>
</tr>
<tr>
<td></td>
<td>7107</td>
<td>U17</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7108</td>
<td>U18</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7109</td>
<td>U19</td>
<td>NONE</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>SPDT</td>
<td>7201 (STD.)</td>
<td>U21</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7203 (STD.)</td>
<td>U23</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7205</td>
<td>U25</td>
<td>MOM.</td>
</tr>
<tr>
<td></td>
<td>7207</td>
<td>U27</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7211 (STD.)*</td>
<td>U211*</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7213*</td>
<td>U213*</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>7215*</td>
<td>U215*</td>
<td>MOM.</td>
</tr>
</tbody>
</table>

**NOTE:**
- **MOM.** = Momentary
- **U11-U415 model nos.** with all options when ordered with G, L, M or Q contact material.
- **Wiring for 3-way switch,** see Section N.

---

**Dimensions are shown:** IN (mm) Dimensions subject to change

[ITT Industries] [Cannon]
### C&K 7000 Series
Miniature Toggle Switches

#### Switch Function

<table>
<thead>
<tr>
<th>NO. POLES</th>
<th>MODEL NO.</th>
<th>UL/CSA MODEL NO.</th>
<th>Switch Function</th>
<th>Connected Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>3P</td>
<td>7301 (STD.)</td>
<td>U31</td>
<td>ON</td>
<td>NONE</td>
</tr>
<tr>
<td></td>
<td>7303</td>
<td>U33</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>7305</td>
<td>U35</td>
<td>MOM.</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>7307</td>
<td>U37</td>
<td>ON</td>
<td>OFF</td>
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</table>

### 3PDT

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>UL/CSA MODEL NO.</th>
<th>Switch Function</th>
<th>Connected Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>7401 (STD.)</td>
<td>U41</td>
<td>ON</td>
<td>NONE</td>
</tr>
<tr>
<td>7403</td>
<td>U43</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>7405</td>
<td>U45</td>
<td>MOM.</td>
<td>OFF</td>
</tr>
<tr>
<td>7407</td>
<td>U47</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>7411*</td>
<td>U411*</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>7413*</td>
<td>U413*</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>7415*</td>
<td>U415*</td>
<td>MOM.</td>
<td>MOM.</td>
</tr>
</tbody>
</table>

### 4PDT

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>UL/CSA MODEL NO.</th>
<th>Switch Function</th>
<th>Connected Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>7401 (STD.)</td>
<td>U41</td>
<td>ON</td>
<td>NONE</td>
</tr>
<tr>
<td>7403</td>
<td>U43</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>7405</td>
<td>U45</td>
<td>MOM.</td>
<td>OFF</td>
</tr>
<tr>
<td>7407</td>
<td>U47</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>7411*</td>
<td>U411*</td>
<td>ON</td>
<td>ON</td>
</tr>
</tbody>
</table>

Part numbers shown: 7301SYZQE, 7303SYZQE, 7305SYZQE, 7307SYZQE, 7308SYZQE, 7401SYZQE, 7403SYZQE, 7405SYZQE, 7407SYZQE, 7411SYZQE, 7413SYZQE, 7415SYZQE

MOM. = Momentary
Wiring for 3-way switch, see Section N.

Dimensions are shown: IN (mm)
Dimensions subject to change

**U11-U415 model nos. with all options when ordered with G, L, M or Q contact material.
C&K 7000 Series
Miniature Toggle Switches

ACTUATOR

S (STD.) .420" HIGH
SP ANTIROTATION, .420" HIGH
L, L1, L2 .840", .640", .550" HIGH
M (STD.) .200" HIGH
MP ANTIROTATION, .200" HIGH
L1P, L2P ANTIROTATION, .840", .640", .550" HIGH

NOTE:

1. L, L1, L2, M, S & TXX actuators not available with Y1 bushing.
2. L1P, L2P, MP, P1, P3, P4, SP & TXX actuators not available with D8 & H4 bushing.
   * Add .070 (.178) for D, D8 & D9 bushings, subtract .020 (.051) for H3 bushing.

Bushing option code not required unless CW splashproof bushing ordered. T1P & T2P actuators not available with CW splashproof bushing. All TXX actuators not available on single pole models with A-A7, AW-AW4, R terminations.

Bushing option code not required. T2P actuator not available with CW splashproof bushing or single pole models with A-A7, AW-AW4, R terminations.

NOTE: Black hardware is supplied when either black actuators or bushings are specified. For additional hardware, see section N.

Dimensions are shown: IN (mm)
Dimensions subject to change

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**C&K 7000 Series**  
**Miniature Toggle Switches**

**ACTUATOR**  

**K2**  
LOCKING LEVER, .704" HIGH (threaded)  

**K9**  
LOCKING LEVER, .704" HIGH (unthreaded)

**K12**  
LOCKING LEVER, .732" HIGH (threaded)  

**K19**  
LOCKING LEVER, .732" HIGH (unthreaded)

**Dimensions are shown: IN (mm)**  
Dimensions subject to change

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**NOTE:** To prevent accidental actuation, toggle must be lifted before being actuated. When released, toggle will lock in place.

Overtightening mounting nut may cause actuator to bind.

Locking levers supplied with bushing shown.

Bushing option code not required unless CW splashproof bushing ordered.

---

**L40**  
LEVER HANDLE WITHOUT CAP

**L41**  
PLASTIC LEVER HANDLE WITH ANTiROTATION AND CAP, P/N 4830

**L42**  
PLASTIC LEVER HANDLE WITH ANTiROTATION AND CAP, P/N 4811

No color choice required.

Finish: Matte (L41 & L42).

---

**L3**  
PLASTIC, .840" HIGH  

**L3P**  
ANTIROTATION, .840" HIGH

---

**OPTION CODE**  

<table>
<thead>
<tr>
<th>COLOR CODE</th>
<th>ACTUATOR FINISH/COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>(STD.) NATURAL ALUMINUM–With Nickle Plated Bushing</td>
</tr>
<tr>
<td>2</td>
<td>BLACK ANODIZED ALUMINUM</td>
</tr>
<tr>
<td>3</td>
<td>RED ANODIZED ALUMINUM</td>
</tr>
<tr>
<td>7</td>
<td>BLUE ANODIZED ALUMINUM</td>
</tr>
</tbody>
</table>

**ACTUATOR CAP FINISH**

<table>
<thead>
<tr>
<th>OPTION CODE</th>
<th>PLASTIC ACTUATOR COLORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONE</td>
<td>(STD.) No Actuator Color (L40 option)</td>
</tr>
<tr>
<td>2</td>
<td>BLACK</td>
</tr>
<tr>
<td>1</td>
<td>WHITE</td>
</tr>
<tr>
<td>3</td>
<td>RED</td>
</tr>
</tbody>
</table>

**NOTE:** Lever handle for L41 & L42 actuators supplied, but not installed. For interchangeability, order L40 actuator option and lever handles separately; see page F-17. L4X actuators not available with H4, Y1, Y4 bushings. Antirotation: Provides anti-‘push-in’ feature on actuator.

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* Add .070 (.18) for D, D8 & D9 bushings, subtract .020 (.051) for H3 bushing.
C&K 7000 Series
Miniature Toggle Switches

**Y** (STD.) .350" HIGH, THREADED, KEYWAY

- **Y9** .350" HIGH, UNTHREADED, KEYWAY
  - No bushing choice required with KXK, TXX actuators. (exception: Specify CW if splashproof bushing desired).

**D** (STD.) .280" HIGH, THREADED, KEYWAY

- **D8** .280" HIGH, UNTHREADED, FLAT
  - .040 (1,02) NO BUSHING
- **D9** .280" HIGH, UNTHREADED, KEYWAY
  - .028 (0,71)

**H** (STD.) .296" HIGH, FLAT

- **H2** .296" HIGH, THREADED, HIGH TORQUE
  - .040 (1,02)

**H3** .215" HIGH, KEYWAY

- **H8** .215" HIGH, THREADED, HIGH TORQUE
  - .040 (1,02)

**D9** bushing standard with all terminations except C, W-W5, Z or Z3. Add .070 (1,78) to all actuators lengths with D, D8 & D9 bushings.

**H4** 8mm HIGH, KEYWAY, THREADED, METRIC

**Y1** .378" HIGH, KEYWAY, THREADED, HIGH TORQUE

**Y3** 8.9mm HIGH, KEYWAY, THREADED, METRIC

**Y4** .378" HIGH, FLAT, THREADED, METRIC

**CW** THREADED, SPLASHPROOF

- For T & T1 actuators.
  - .076 (1,91)
- For actuators other than T & T1.
  - .448 (11,38)

**Y** bushing standard with C, W-W5, Z or Z3 terminations.

**D9** bushing standard with all terminations except C, W-W5, Z or Z3. Add .070 (1,78) to all actuators lengths with D, D8 & D9 bushings.

**H4** bushing available only with L, L1, L2, L3, M & S actuators.

**Y1** bushing available only with LP, LXP, MP, PX & SP actuators.

**Y4** bushing not available with L4X actuators.

---

**F** (STD.) .350" HIGH, THREADED, KEYWAY

- **F1** .350" HIGH, UNTHREADED, KEYWAY
  - .028 (0,71)

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**BUSHING FINISH**

- **NONE** NICKEL on all bushings except ‘D8’ satin chrome.
- **2** BLACK