

# A Series

## General Purpose Snap-acting Switches



### Features/Benefits

- **Low cost—high performance**
- **Long electrical life**
- **Single and double pole**
- **Sealed actuator option available**

### Typical Applications

- **Enclosure equipment**
- **Garage door openers**
- **Vending machines**



### Specifications

CONTACT RATING: From low level\* to 30.1 AMPS @ 277 V AC.  
ELECTRICAL LIFE: 75,000 cycles at 25 AMPS @ 250 V AC,  
200,000 cycles at 15 AMPS @ 250 V AC.  
INSULATION RESISTANCE: 1,000 M ohm min.  
DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.  
OPERATING TEMPERATURE: -67°F to 185°F (-55°C to 85°C).  
OPERATING FORCE: 20 oz. (567 grams) max. SP models.  
40 oz. (1134 grams) max. DP models at actuator button.  
MOUNTING: Torque screws 3 in/lbs max.  
MOUNTING NUT: 20 in/lbs max. torque

\* Low Level=conditions where no arcing occurs during switching, i.e., 0.4 VA max. @ 20 V AC or DC max.

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

### Materials

SWITCH HOUSING: Heat resistant phenolic (UL 94V-0).  
ACTUATOR BUTTON: Heat resistant phenolic (UL 94V-0).  
SPRING: Copper alloy.  
PIVOT: Brass alloy for models up to 15 AMPS.  
Copper for 25 AMP models.  
MOVABLE CONTACTS: Gold alloy for ratings 1 AMP or less.  
Fine silver for ratings up to 15 AMPS. Silver alloy for ratings of 30.1 AMPS.  
STATIONARY CONTACTS: Gold alloy on brass base alloy for ratings 1 AMP or less. Fine silver welded on brass base alloy for ratings greater than 1 AMP up to 15 AMPS.  
Fine silver welded on copper alloy for ratings 30.1 AMPS.  
TERMINALS: Brass alloy for 1 AMP up to 15 AMPS.  
Copper alloy for 30.1 AMPS.

### 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 J-56 through J-59. For additional options not shown in catalog, consult Customer Service Center.

|                                                                |                                                |                                                                                                                                                      |                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                        |                                                      |                                                                         |
|----------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Series</b><br><b>A</b> General Purpose Snap-acting Switches | <b>No. Poles</b><br><b>S</b> SP<br><b>D</b> DP | <b>Operating Force</b><br><b>KH*</b> 20 oz./567 grams<br><b>PD**</b> 30 oz./850 grams<br><b>GG*</b> 5 oz./142 grams<br><b>PF**</b> 40 oz./1134 grams | <b>Electrical Rating</b><br><b>C2</b> 15 A, 125, 250 V AC;<br>3/4 HP, 125 V AC; 1 1/2 HP, 250 V AC<br><b>F3</b> 25 A, 125, 250 V AC; 1 HP, 125 V AC;<br>2 HP, 250 V AC; 2 A, 24 V DC<br><b>F5</b> 1 A, 125 V AC, 30 V DC | <b>Actuator</b><br><b>P0</b> Pin plunger<br><b>T0</b> Lever<br><b>A0</b> Lever roller<br><b>A2</b> Lever roller, high force<br><b>BB</b> Large red button<br><b>B1</b> Large black button<br><b>J0</b> High overtravel plunger<br><b>L0</b> Leaf<br><b>Q0</b> High operating position plunger<br><b>W0</b> Leaf roller | <b>Terminations</b><br><b>4A</b> .250" quick connect | <b>Circuitry</b><br><b>C</b> DT<br><b>W</b> ST N.C.<br><b>Y</b> ST N.O. |
|----------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------------|

\* Single Pole  
\*\* Double Pole



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

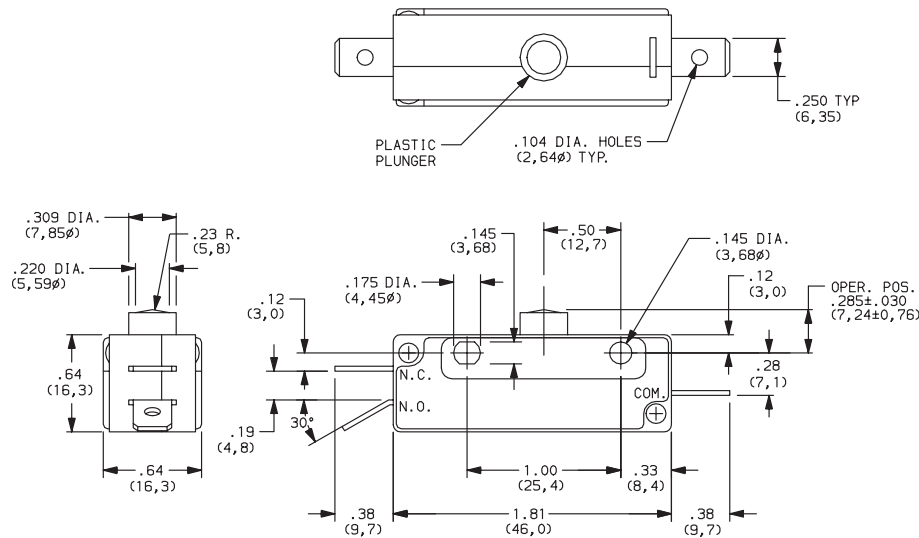
# A Series General Purpose Snap-acting Switches

SERIES ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

**A** GENERAL PURPOSE SNAP-ACTING SWITCHES

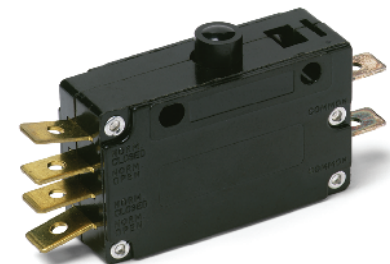
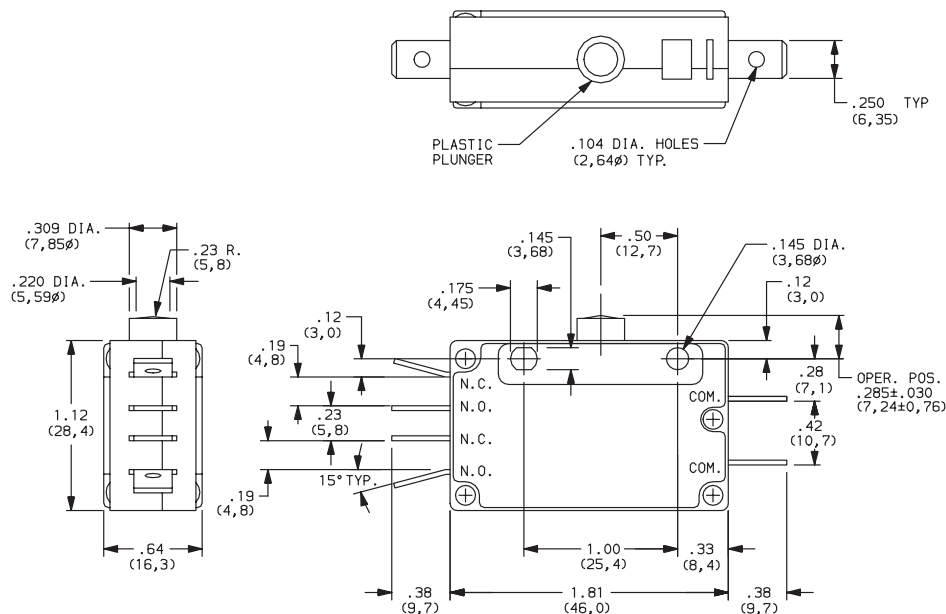
NO. POLES ■ ■ ■ ■ ■ ■ ■ ■ ■ ■

**S** SINGLE POLE SWITCH



Mounting holes will accept pins or screws  
of .139 dia. (3,53) max., on 1.000 (25,40) centers.

**D** DOUBLE POLE SWITCH



Mounting holes will accept pins or screws  
of .139 dia. (3,53) max., on 1.000 (25,40) centers.

**NOTE:** To select switching function, see CIRCUITRY section, page J-59.



Third Angle  
Projection

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

**C&K**

# A Series

## General Purpose Snap-acting Switches

### OPERATING FORCE

| OPTION CODE | NO. POLES | BASIC SWITCH OPERATING FORCE (OZ./GRAMS) |
|-------------|-----------|------------------------------------------|
| KH          | SP        | 20<br>567                                |
| PD          | DP        | 30<br>850                                |
| GG          | SP        | 5<br>142                                 |
| PF          | DP        | 40<br>1134                               |

NOTE: Operating force varies with actuator, see ACTUATOR option section.

### ELECTRICAL RATING

| OPTION CODE | CONTACT MATERIAL |                                         | ELECTRICAL RATING                                                             |
|-------------|------------------|-----------------------------------------|-------------------------------------------------------------------------------|
|             | MOVABLE CONTACT  | STATIONARY CONTACT                      |                                                                               |
| C2          | Fine silver.     | Fine silver welded on brass base alloy. | 15 AMPS @ 125 & 250 V AC; 3/4 HP @ 125 V AC; 1-1/2 HP @ 250 V AC.             |
| F3          | Silver alloy.    | Silver welded on copper base alloy.     | 25 AMPS @ 125 & 250 V AC; 1 HP @ 125 V AC; 2 HP @ 250 V AC; 2 AMPS @ 24 V DC. |
| F5          | Gold alloy.      | Gold alloy on brass base alloy.         | From low level* to 1 AMP @ 125 V AC, 30 V DC.                                 |

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definition and specifications.

All models **C&K** with all options.

Contact Customer Service Center for availability and delivery of nonstandard ratings.

\* Low Level=conditions where no arcing occurs during switching,  
i.e., 0.4 VA max. @ 20 V AC or DC max.

#### AVAILABLE COMBINATIONS

| ELECTRICAL RATING | OPERATING FORCE (OZ./GRAMS) |                 |                 |                  |
|-------------------|-----------------------------|-----------------|-----------------|------------------|
|                   | GG<br>5<br>142              | KH<br>20<br>567 | PD<br>30<br>850 | PF<br>40<br>1134 |
| C2                | •                           | •               | •               | •                |
| F3                | x                           | •               | •               | •                |
| F5                | •                           | •               | •               | •                |

• AVAILABLE  
x NOT AVAILABLE

# A Series General Purpose Snap-acting Switches

## ACTUATOR

| OPTION CODE | FIG. | DIM. A         | DIM. B                        | DIM. C               | DIM. D             | DIM. E        | DIM. F |
|-------------|------|----------------|-------------------------------|----------------------|--------------------|---------------|--------|
| <b>P0</b>   | 1    | .50<br>(12,7)  | .285 ± .030<br>(7,24 ± 0,76)  | —                    | —                  | —             | —      |
| <b>A0</b>   | 3    | 1.38<br>(35,1) | .718 ± .062<br>(18,24 ± 1,57) | .375 dia.<br>(9,53Ø) | .50<br>(12,7)      | .50<br>(12,7) | —      |
| <b>A2</b>   | 4    | 1.25<br>(31,8) | .718 ± .062<br>(18,24 ± 1,57) | .375 dia.<br>(9,53Ø) | .50<br>(12,7)      | —             | —      |
| <b>B1</b>   | 6    | 1.50<br>(38,1) | .40 ± 0.1<br>(10,2 ± 2,54)    | .98 dia.<br>(24,9Ø)  | —                  | —             | —      |
| <b>BB</b>   | 6    | 1.50<br>(38,1) | .40 ± 0.1<br>(10,2 ± 2,54)    | .98 dia.<br>(24,9Ø)  | —                  | —             | —      |
| <b>J0</b>   | 5    | .50<br>(12,7)  | .810 ± .030<br>(20,6 ± 0,8)   | .38<br>(9,7)         | .25 dia.<br>(6,4Ø) | —             | —      |
| <b>L0</b>   | 2    | 1.62<br>(41,1) | .312 ± .062<br>(7,92 ± 1,57)  | .50<br>(12,7)        | —                  | —             | —      |
| <b>Q0</b>   | 5    | .50<br>(12,7)  | .670 ± .030<br>(17,02 ± 0,76) | .38<br>(9,6)         | .25 dia.<br>(6,4Ø) | —             | —      |
| <b>T0</b>   | 7    | 1.50<br>(38,1) | .318 ± .062<br>(8,08 ± 1,57)  | .50<br>(12,7)        | .50<br>(12,7)      | —             | —      |
| <b>W0</b>   | 8    | 1.50<br>(38,1) | .801 ± .062<br>(20,34 ± 1,57) | .375 dia.<br>(9,53Ø) | .50<br>(12,7)      | —             | —      |

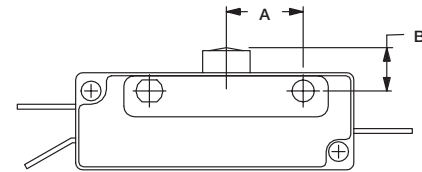


FIG. 1  
High Overtravel Plunger

**NOTE:** The "H0" high overtravel plunger option provides .100 (2,54) min. overtravel and longer mechanical life (1,000,000 operations typical).

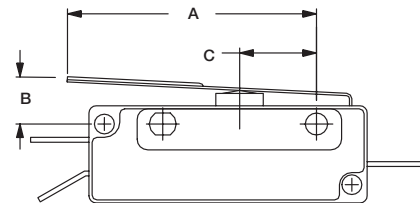


FIG. 2  
Leaf

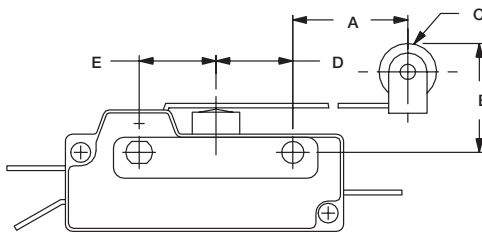


FIG. 3  
Lever Roller

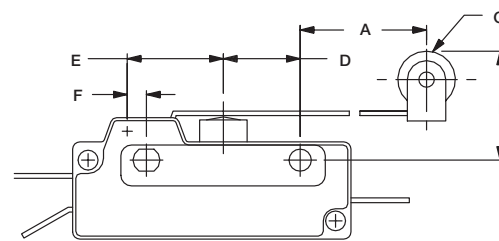


FIG. 4  
Lever roller (High Force)

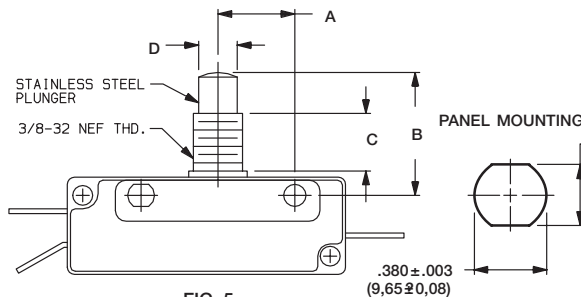


FIG. 5  
High Overtravel Plunger

Torque 20 in/lbs max. (Nut)

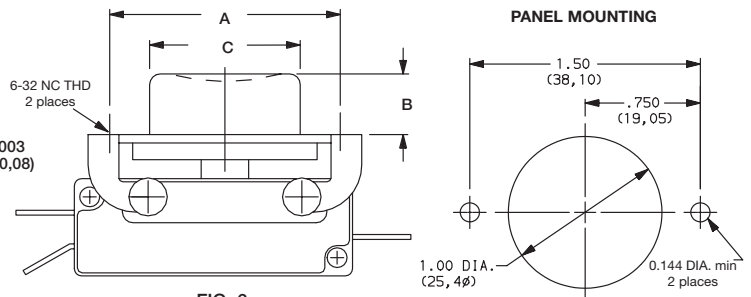


FIG. 6  
B1 - Black Button  
BB - Red Button

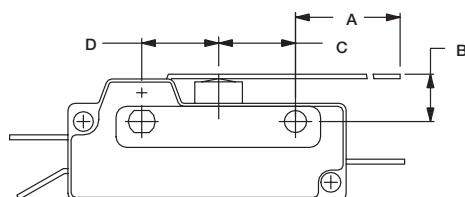


FIG. 7  
Lever

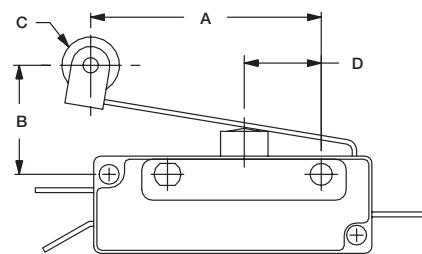


FIG. 8  
Leaf Roller



Dimensions are shown: Inch (mm)

Specifications and dimensions subject to change

A Series
General Purpose Snap-acting Switches

ACTUATOR

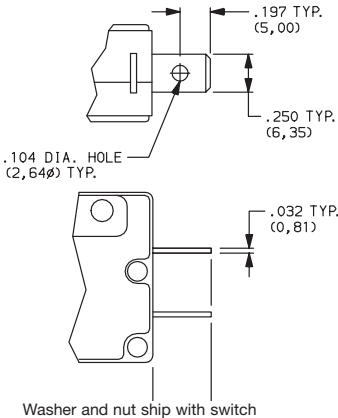
SWITCH CHARACTERISTICS

| OPTION CODE | MAXIMUM OPERATING FORCE (OZ./GRAMS) |           |           |            | MINIMUM RELEASE FORCE (OZ./GRAMS) |           |           |         | MAXIMUM PRETRAVEL |         |         |         | MINIMUM OVERTRAVEL |         |                |         | OPERATING POSITION |         |         |         |
|-------------|-------------------------------------|-----------|-----------|------------|-----------------------------------|-----------|-----------|---------|-------------------|---------|---------|---------|--------------------|---------|----------------|---------|--------------------|---------|---------|---------|
|             | GG S.P.                             | KH S.P.   | PD D.P.   | PF D.P.    | GG S.P.                           | KH S.P.   | PD D.P.   | PF D.P. | GG S.P.           | KH S.P. | PD D.P. | PF D.P. | GG S.P.            | KH S.P. | PD D.P.        | PF D.P. | GG S.P.            | KH S.P. | PD D.P. | PF D.P. |
| A0          | 1.5<br>42.5                         | 4<br>113  | 6<br>170  | 10<br>283  | 0.3<br>8.5                        | 0.5<br>14 | 1<br>28   |         | .312<br>(7,92)    |         |         |         | 312<br>(7,92)      |         | .187<br>(4,75) |         | .718<br>(18,24)    |         |         |         |
| A2          | 1.5<br>42.5                         | 4<br>113  | 6<br>170  | 10<br>283  | 0.4<br>11                         | 0.5<br>14 | 1<br>28   |         | .25<br>(6,4)      |         |         |         | .14<br>(5,6)       |         |                |         | .718<br>(18,24)    |         |         |         |
| B1          | 8<br>227                            | 20<br>567 | 30<br>850 | 40<br>1134 | 1<br>28                           | 3<br>85   | 6<br>170  |         | .050<br>(1,27)    |         |         |         | .050<br>(1,27)     |         |                |         | —                  |         |         |         |
| BB          | 8<br>227                            | 20<br>567 | 30<br>850 | 40<br>1134 | 1<br>28                           | 3<br>85   | 6<br>170  |         | .050<br>(1,27)    |         |         |         | .050<br>(1,27)     |         |                |         | —                  |         |         |         |
| J0          | 5<br>142                            | 20<br>567 | 30<br>850 | 40<br>1134 | 1<br>28                           | 3<br>85   | 6<br>170  |         | .050<br>(1,27)    |         |         |         | .187<br>(4,75)     |         |                |         | —                  |         |         |         |
| L0          | 3<br>85                             | 12<br>340 | 18<br>510 | 22<br>624  | 0.5<br>14                         | 1<br>28   | 2<br>56.7 |         | .281<br>(7,14)    |         |         |         | .062<br>(1,57)     |         |                |         | .312<br>(7,92)     |         |         |         |
| P0          | 8<br>227                            | 20<br>567 | 30<br>850 | 40<br>1134 | 1<br>28                           | 3<br>85   | 6<br>170  |         | .050<br>(1,27)    |         |         |         | .050<br>(1,27)     |         |                |         | —                  |         |         |         |
| Q0          | 5<br>142                            | 20<br>567 | 30<br>850 | 40<br>1134 | 1<br>28                           | 3<br>85   | 6<br>170  |         | .050<br>(1,27)    |         |         |         | .050<br>(1,27)     |         |                |         | —                  |         |         |         |
| T0          | 1.5<br>42.5                         | 4<br>113  | 6<br>170  | 10<br>283  | 0.3<br>8.5                        | 0.5<br>14 | 1<br>28   |         | .312<br>(7,92)    |         |         |         | .187<br>(4,75)     |         |                |         | 312<br>(7,92)      |         |         |         |
| W0          | 3<br>85                             | 12<br>340 | 18<br>510 | 22<br>624  | 0.5<br>14                         | 1<br>28   | 2<br>56.7 |         | .281<br>(7,14)    |         |         |         | .062<br>(1,57)     |         |                |         | .718<br>(18,24)    |         |         |         |

NOTE: For basic switch operating forces, see page J-57.

TERMINATIONS

4A .250" QUICK CONNECT



NOTE: Terminals can be supplied at various angles. Other terminal styles can be supplied for special applications. Consult Customer Service Center for special requirements.

CIRCUITRY

- C DT (Double Throw, Normally Open & Normally Closed)
- W ST N.C. (Single Throw, Normally Closed)
- Y ST N.O. (Single Throw, Normally Open)

NOTE: To select number of poles, see NO. POLES section, page J-56



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

# Mouser Electronics

Authorized Distributor

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## C&K Components:

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[ASKHC2T04AY](#) [ADPDC2W04AC](#) [ASKHC2W04AC](#) [ASKHF3B14AC](#) [ASKHC2T04AC](#) [ADPDC2L04AC](#)  
[ASGGC2P04AC](#) [ADPDC2J04AC](#) [ADPDC2P04AC](#) [ADPDC2A04AC](#) [ADPDC2A24AC](#) [ADPDC2BB4AC](#)  
[ADPDC2J04AY](#) [ADPDC2P04AY](#) [ADPDC2T04AY](#) [ADPFF3J04AC](#) [ADPFF3J04AW](#) [ADPFF3J04AY](#) [ADPFF3P04AC](#)  
[ADPFF3P04AY](#) [ADPFF3T04AC](#) [ASGGF5A04AC](#) [ASGGF5BB4AY](#) [ASGGF5J04AC](#) [ASGGF5J04AY](#) [ASGGF5L04AC](#)  
[ASGGF5P04AC](#) [ASGGF5Q04AC](#) [ASKHC2B14AY](#) [ASKHC2BB4AY](#) [ASKHC2J04AW](#) [ASKHC2J04AY](#)  
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[ASKHF3W04AC](#) [ADPFF3BB4AC](#) [ASKHF3BB4AY](#) [ADPFF3B14AC](#) [ASKHF3L04AC](#) [ASKHF3L04AY](#)  
[ADPFF3P04AW](#) [ADPFF3Q04AC](#)