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***



c UL us

Specifications

CONTACT RATING: From low level* to 25 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 302°F (–55°C to 150°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. C&K does provide specific and custom switches at 30 AMPS @ 277 VAC. Please 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 25 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 25 AMPS.

TERMINALS: Brass alloy for 1 AMP up to 15 AMPS. Copper alloy for 25 AMPS.

J Snap-acting

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. For additional options not shown in catalog, consult Customer Service Center.

A						4	A	

Series
A General Purpose Snap-acting Switches

No. Poles
S SP
D DP

Operating Force
KH* 20 oz./567 grams
PD** 30 oz./850 grams
GG* 5 oz./142 grams
PF** 40 oz./1134 grams

Electrical Rating
C2 15 A, 125, 250 V AC; 3/4 HP, 125 V AC; 1 1/2 HP, 250 V AC
F3 25 A, 125, 250 V AC; 1 HP, 125 V Ac; 2 HP, 250 V AC; 2 A, 24 V DC
F5 1 A, 125 V AC, 30 V DC

Actuator
P0 Pin plunger
T0 Lever
A0 Lever roller
A2 Lever roller, high force
BB Large red button
B1 Large black button
J0 High overtravel plunger
L0 Leaf
Q0 High operating position plunger
W0 Leaf roller

Terminations
4A .250" quick connect

Circuitry
C DT
W ST N.C.
Y ST N.O.

* Single Pole
** Double Pole

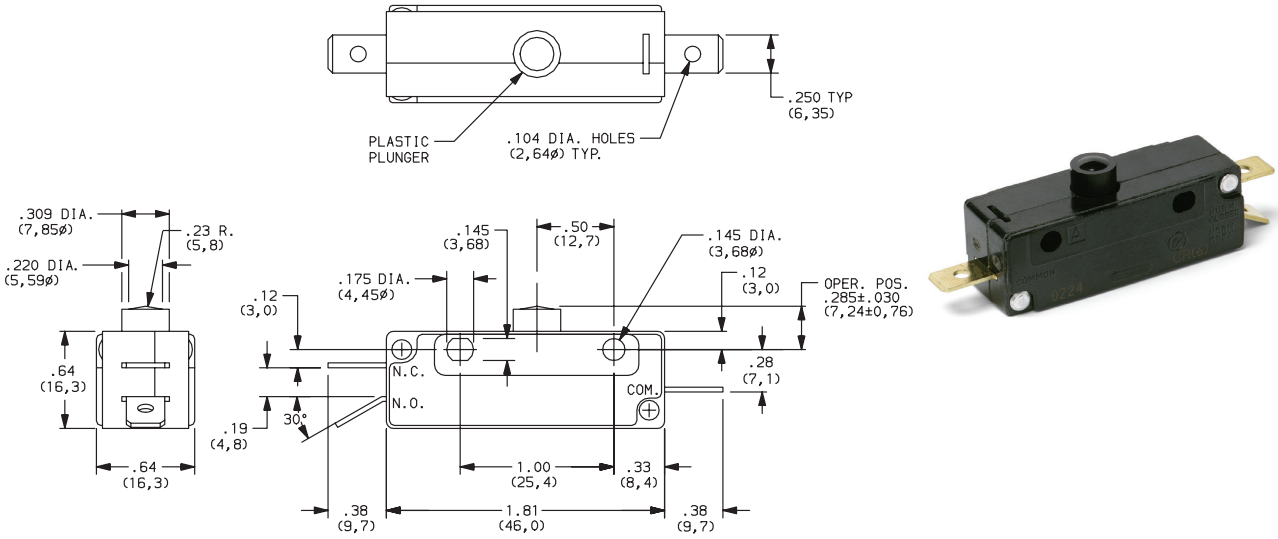
A Series
General Purpose Snap-acting Switches

SERIES

A GENERAL PURPOSE SNAP-ACTING SWITCHES

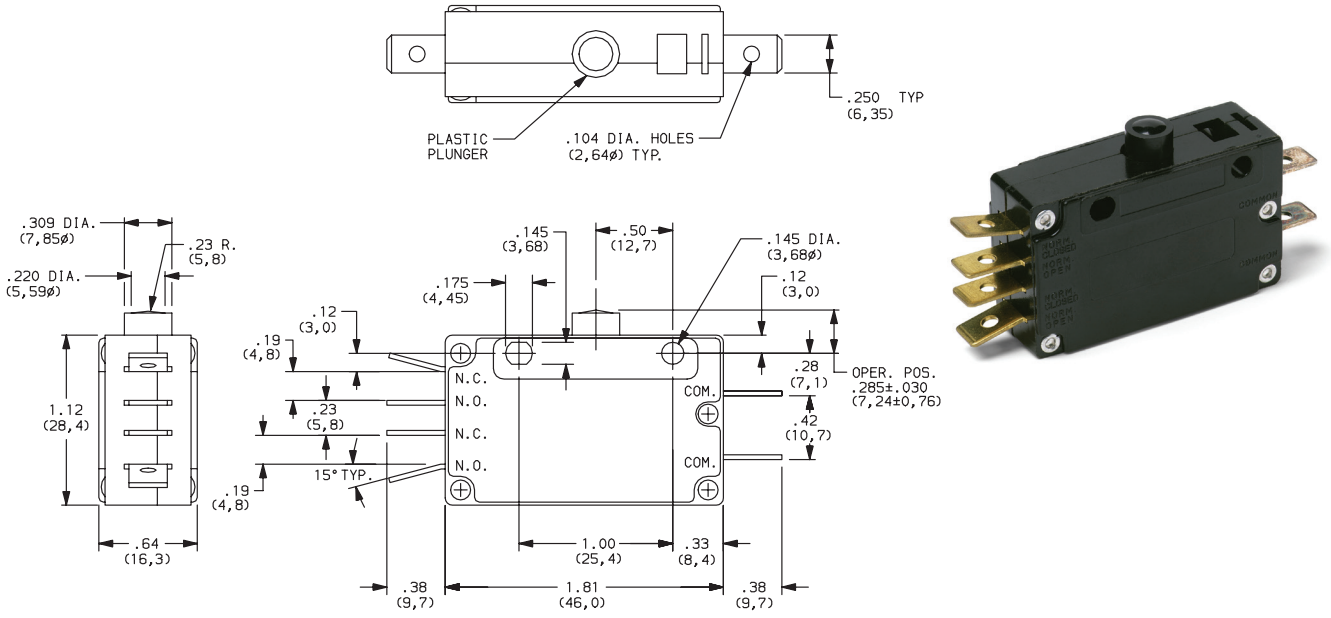
NO. POLES

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-81.

Third Angle Projection

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

OPERATING FORCE

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

All models c UL us 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.

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

AVAILABLE COMBINATIONS

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

• AVAILABLE

x NOT AVAILABLE

Third Angle Projection

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

ACTUATOR

OPTION CODE	FIG.	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	DIM. F
P0	1	.50 (12,7)	.285 ± .030 (7,24 ± 0,76)	–	–	–	–
A0	3	1.38 (35,1)	.718 ± .062 (18,24 ± 1,57)	.375 dia. (9,53Ø)	.50 (12,7)	.50 (12,7)	–
A2	4	1.25 (31,8)	.718 ± .062 (18,24 ± 1,57)	.375 dia. (9,53Ø)	.50 (12,7)	–	–
B1	6	1.50 (38,1)	.40 ± 0.1 (10,2 ± 2.54)	.98 dia. (24,9Ø)	–	–	–
BB	6	1.50 (38,1)	.40 ± 0.1 (10,2 ± 2.54)	.98 dia. (24,9Ø)	–	–	–
J0	5	.50 (12,7)	.810 ± .030 (20,6 ± 0,8)	.38 (9,7)	.25 dia. (6,4Ø)	–	–
L0	2	1.62 (41,1)	.312 ± .062 (17,92 ± 1,57)	.50 (12,7)	–	–	–
Q0	5	.50 (12,7)	.670 ± .030 (17,02 ± 0,76)	.38 (9,6)	.25 dia. (6,4Ø)	–	–
T0	7	1.50 (38,1)	.318 ± .062 (8,08 ± 1,57)	.50 (12,7)	.50 (12,7)	–	–
W0	8	1.50 (38,1)	.801 ± .062 (20,34 ± 1,57)	.375 dia. (9,53ø)	.50 (12,7)	–	–

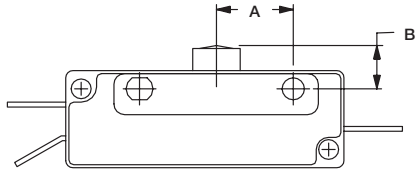


FIG. 1
High Overtravel Plunger

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

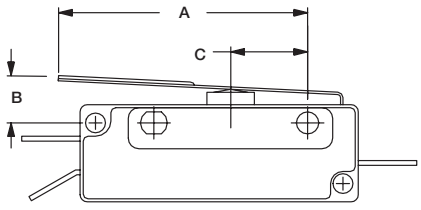


FIG. 2
Leaf

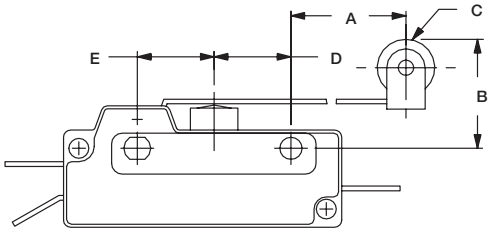


FIG. 3
Lever Roller

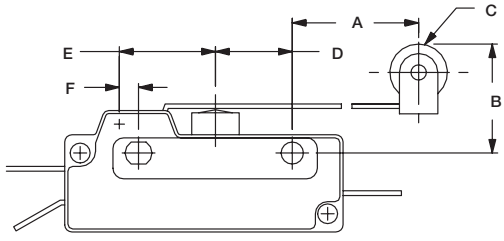


FIG. 4
Lever roller (High Force)

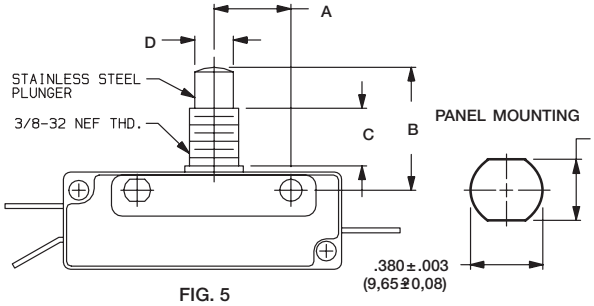


FIG. 5
High Overtravel Plunger

Torque 20 in/lbs max. (Nut)

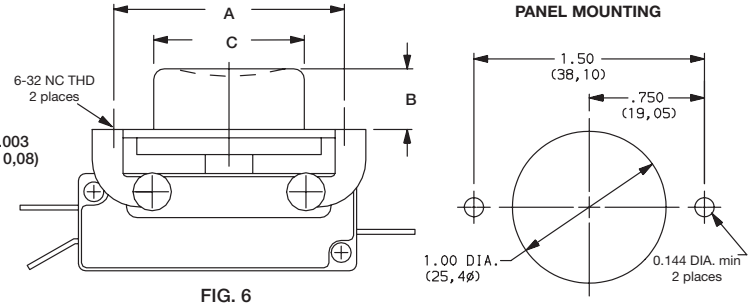


FIG. 6
B1 – Black Button
BB – Red Button

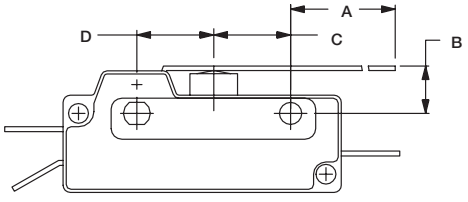


FIG. 7
Lever

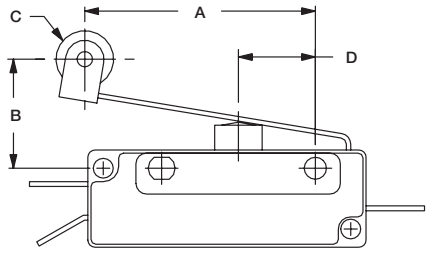


FIG. 8
Leaf Roller

Third Angle Projection

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

ACTUATOR

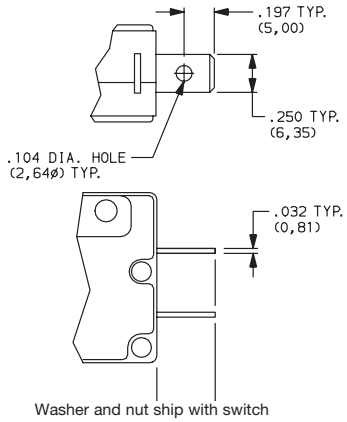
SWITCH CHARACTERISTICS

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 42.5	4 113	6 170	10 283	0.3 8.5	0.5 14	1 28		.312 (7,92)				312 (7,92)		.187 (4,75)		.718 (18,24)			
A2	1.5 42.5	4 113	6 170	10 283	0.4 11	0.5 14	1 28		.25 (6,4)				.14 (5,6)				.718 (18,24)			
B1	8 227	20 567	30 850	40 1134	1 28	3 85	6 170		.050 (1,27)				050 (1,27)				—			
BB	8 227	20 567	30 850	40 1134	1 28	3 85	6 170		.050 (1,27)				.050 (1,27)				—			
J0	5 142	20 567	30 850	40 1134	1 28	3 85	6 170		.050 (1,27)				.187 (4,75)				—			
L0	3 85	12 340	18 510	22 624	0.5 14	1 28	2 56.7		.281 (7,14)				062 (1,57)				.312 (7,92)			
P0	8 227	20 567	30 850	40 1134	1 28	3 85	6 170		.050 (1,27)				.050 (1,27)				—			
Q0	5 142	20 567	30 850	40 1134	1 28	3 85	6 170		.050 (1,27)				.050 (1,27)				—			
T0	1.5 42.5	4 113	6 170	10 283	0.3 8.5	0.5 14	1 28		.312 (7,92)				.187 (4,75)				312 (7,92)			
W0	3 85	12 340	18 510	22 624	0.5 14	1 28	2 56.7		.281 (7,14)				.062 (1,57)				.718 (18,24)			

NOTE: For basic switch operating forces, see page J-77.

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

Third Angle Projection

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

C&K Switches:

ADPDC2T04AC ASKHC2J04AC ASKHC2A04AC ASKHC2BB4AC A30415RNZB ASKHC2P04AC ASKHC2T04AY ADPDC2W04AC ASKHF3B14AC A3151U2A1NZRQ ASKHC2T04AC ADPDC2L04AC ASGGC2P04AC A10305RNCG A10403RSZGE A20505RNZGK A30405MNZQ A40203RSZQ A403S1RNCQ ADPDC2J04AC A10003MNZBE A10005RNZQ A10305RNCGF A103S1RNCG A10442RNZG A10615MNCQE A10615MNZQE A106S1RNMCB A106S1RNMCG A10703RNCQ A10815RSZQ A108S1RNCQE A11205RSCB A11215MNCBK A11215MNCQE A11215MSCBK A11242MNZG A11242MNZQE A11405RNZQK A114S1RNZQ A11505RNZQK A12403MNZB A12405MNCQE A12515MNCQE A20305RNCB A20315RNCG A20403RSCQ A20403RSZQ A20405RSZBK A20405RSZQ A20415RSZQ A20503RNMCG A205S1RNMCG A20615RNZQK A30303RSZQ A30305RSCQF A30403MNCB A30403MNCQK A30405RSCQF A30442MNZQ A40203MNMCB A40303RSZQ A11203RSZG ADPDC2P04AC A10003RNCBE A10003RNZBK A10005RNCBK A10015RNZB A10042MNCGK A10205RSZB A10215RNMCG A10215RNMCQK A10303RNZG A10305RNCBE A10305RNZBE A10305RNZBF A10403RNZB A10403RSZG A10405RNMCB A10405RNMCGE A10414MNMCQ A10415RNZB A10415RNZQK A10415RSMCGE A104S1RNZB A10505RNMCBK A10505RNZBK A10515RNCQ A105S1MNZB A10615RNCQ A10615RNMCQ A10642MNCQK A10705RNCQE A10705RNZGE A10705RNZQE A10705RNZQK A10705RSMCB A10903RNCBE A10903RNMCQ A10903RNMCQK