

# Miniature Snap Switch

## Single Pole D4 Series



### Features

- Choice of standard or light operating force
- Long life coil spring mechanism
- RoHS compliant
- Cadmium free
- Various aux actuators
- Various terminal types
- Agency approved extended life versions available

### Standard Parts<sup>1</sup>

D413-R1AA-G2	D429-R1TD-G2	D433-R1AA-G2	D443-R1LD-G2	D449-R1LL-G2	D453-R1RA-G2
D413-R1LA-G2	D429-R1AA-G2	D433-R1LD-G2	D443-R1MD-G2	D449-R1MD-G2	D453-R1RD-G2
D413-R1LD-G2	D429-R1LD-G2	D433-R1RA-G2	D443-R1RA-G2	D449-R1ML-G2	D459-R1AA-G2
D413-R1RA-G2	D429-R1LL-G2	D433-R1RD-G2	D443-R1RD-G2	D449-R1RA-G2	D459-R1LD-G2
D419-R1AA-G2	D429-R1MD-G2	D439-R1LL-G2	D449-R1AA-G2	D449-R1RD-G2	D459-R1LL-G2
D423-R1RA-G2	D429-R1ML-G2	D439-V1ML-G2	D449-R1LD-G2	D453-B8AA-G2	D459-R1ML-G2
D423-R1RD-G2		D443-R1AA-G2		D453-R1AA-G2	

<sup>1</sup>The part number configuration matrix below provides details to the part numbers above.

For configurable part numbers that are not listed above, not listed in your region, or for custom part numbers, contact the factory or your distributor. For information on crossing discontinued U.S. only part numbers, see D4 cross-reference chart at [www.cherryswitches.com](http://www.cherryswitches.com).

### Part Number Breakdown

D413-R1AA-G2 (most part numbers end in -G2; see D4 cross-reference chart for exceptions)

Series	Contact Rating <sup>2</sup>		Configuration <sup>3</sup>							
			85 °C			125 °C		150 °C		
D4	1	0.1 A	1	SPST – NO	Standard Op. Force "Y"	G	SPST – NO	S	SPST – NO	Light Op. Force
	2	3 A	2	SPST – NC		H	SPST – NC	T	SPST – NC	
	3	5 A	3	SPDT		M	SPDT	U	SPDT	
	4	10 A	7	SPST – NO	Light Op. Force "X"	N	SPST – NO			
	5	15 A	8	SPST – NC		P	SPST – NC			
	8	21 A	9	SPDT		R	SPDT			

<sup>2</sup>UL AC current rating; see table on reverse for complete details

<sup>3</sup>D48 only available with light operating force

Terminal Type	Description
A1	Welding
B8	Short solder
P4	1.2 x 0.5 (0.047 x 0.020) PCB, underside*
P5	1.2 x 0.5 (0.047 x 0.020) PCB, rear*
PA	1.2 x 0.5 (0.047 x 0.020) PCB, housing side*
PB	1.2 x 0.5 (0.047 x 0.020) PCB, cover side*
Q1	4.8 x 0.8 (0.187 x 0.032) QC, straight*
Q3	4.8 x 0.8 (0.187 x 0.032) QC, dog leg*

\*not available for D48

\*\*not available for D45 or D48

Terminal Type	Description
R1	4.8 x 0.5 (0.187 x 0.020) QC, straight**
R3	4.8 x 0.5 (0.187 x 0.020) QC, dog leg**
S1	Solder with temp stop
V1	6.3 x 0.8 (0.250 x 0.032) QC, straight
V3	6.3 x 0.8 (0.250 x 0.032) QC, dog leg
W9	Screw*
X5	1.5 x 0.8 (0.059 x 0.032) QC, 2.5 mm grid
Y5	6.3 x 0.8 (0.250 x 0.032) QC, 5 mm grid

Actuator Type mm (inches)

Actuator Type	Actuation length
AA	Button
JA	SS lever, standard ratio
JD	SS lever, standard ratio
JL	SS lever, standard ratio
KA	SS lever, high ratio
KD	SS lever, high ratio
KL	SS lever, high ratio
LA	Lever, standard ratio
LD	Lever, standard ratio
LL	Lever, standard ratio

Actuator Type	Actuation length
MA	Lever, high ratio
MD	Lever, standard ratio
ML	Lever, high ratio
RA	Roller, standard ratio
RD	Roller, standard ratio
SA	Roller, simulated, rear mount
TA	Roller, high ratio
TD	Roller, high ratio
UA	Roller, simulated, front mount

For actuator details, see D4 actuator reference sheet at [www.cherryswitches.com](http://www.cherryswitches.com)

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## Electrical Specifications – Contact Ratings

Contact	EN61058	UL1054
1	0.1 (0.5) A, 250 VAC; 0.5 A, 30 VDC; 1 (1) A, 250 VAC	0.1 A, 125/250 VAC; 0.5 A, 30 VDC; 1 A, 125 VAC
2	3 (1) A, 250 VAC	3 A, 125/250 VAC; 1/10 HP, 250 VAC
3	6 (2) A, 250 VAC	5 A, 125/250 VAC; ¼ HP, 250 VAC
4	10 (3) A, 250 VAC	10 A, 125/250 VAC; 6 A, 30 VDC; ½ HP, 125/250 VAC
5	16 (4) A, 250 VAC	15 A, 125/250 VAC; ½ HP, 125-250 VAC
8	21 (8) A, 250 VAC	21 A, 250 VAC; 1 HP, 125 VAC; 2 HP, 250 VAC

UL file number E314201

## Environmental and Mechanical Specifications

Operating Temperature	-40 °C to 85, 125 or 150 °C (-40 °F to 185, 257 or 302 °F)	
Flammability Rating	UL 94V-0	
Operating life – electrical life at rated load, 85 °C		
	<u>Contact</u>	<u>EN61058</u>
	1	50,000
	2	50,000
	3	50,000
	4	50,000
	5	50,000
	7	10,000
		<u>UL1054<sup>4</sup></u>
		6,000
		6,000
		6,000
		6,000
		6,000
		6,000

<sup>4</sup>Extended life available

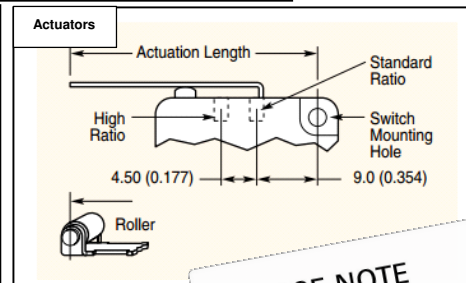
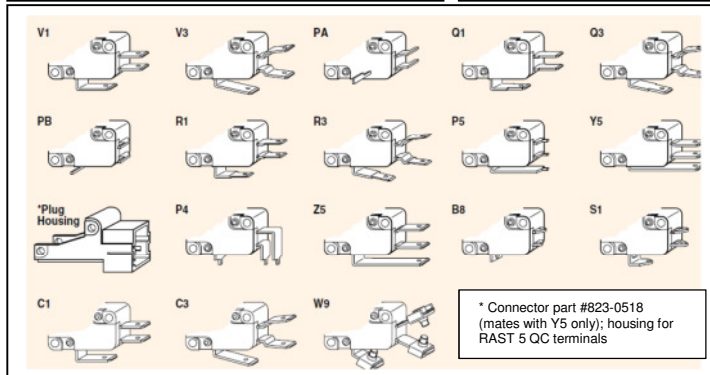
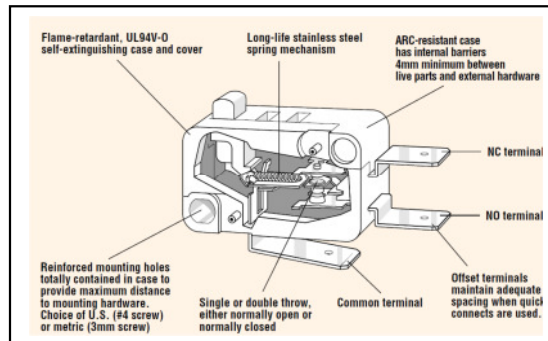
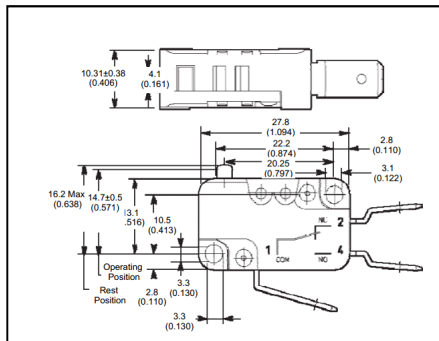
## Material Specifications

Case	Thermoplastic Polyester PET
Cover	Thermoplastic Polyester PET
Actuating Button	Thermoplastic Acetyl (POM) 85 °C, Thermoplastic Polyester (PET) 125 or 150 °C
Contacts	Gold Cross Point (D41), Silver (D42), Silver Alloy (D43-D48)
Terminals	Brass
Auxiliary Actuator	Stainless Steel or Cold-Rolled Steel (Nickel Plated)
Moving Blade	Silver Plated Brass

## Environmental Specifications

Ambient Temperature	-40 °C to 85 °C/120 °C (-40 °F to 185 °F/248 °F)
Operating Force	70 – 280 cN (model dependent, without actuator)
Total Travel	1.6 mm
Ingress Protection	IP50

## Dimensions mm (inches) and terminal configurations



PLEASE NOTE  
**CHERRY**  
 will become  
**ZF** in 2017.