

# D3 Series

## Miniature Snap-Action Switches



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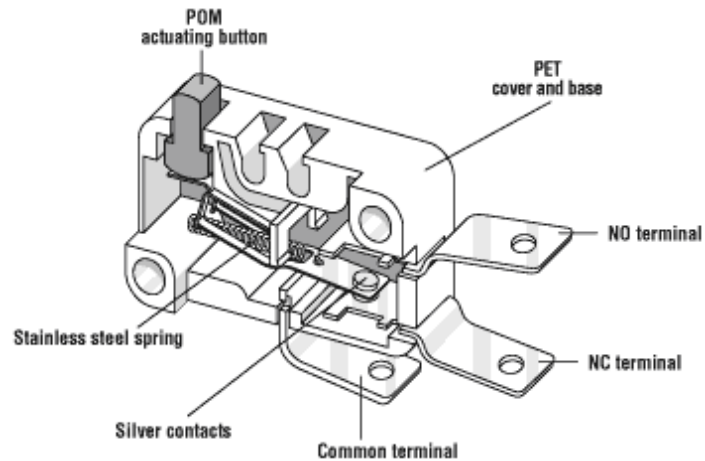
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### Features

- Self-cleaning effect of wiping contact mechanism provides excellent reliability
- Suitable for low actuation speeds
- Highly flexible, due to two mounting positions and a variety of auxiliary actuators
- Wide variety of terminal types
- >3mm (0.12") contact gap available



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### Electrical Ratings

Switch Series	EN61058 Rating	UL1054 Rating	Electrical Life at Rated Load	
			According to EN (Min. Operations)	According to UL (Min. Operations)
D38	16(4)A, 250V~ 10(3)A, 400V~	16A, 125/250VAC, 1HP	50,000	6,000

To download a PDF of the **Cherry Switches Master Catalog**, [click here](#).



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## Specifications

### Electrical

Temperature Rating: -40° to +85°C

Flammability Rating: UL94V-O

### Materials

Case: Polyethyleneterephthalate (PET)

Actuator: Polyacetal (POM)

Auxiliary Actuator: Stainless Steel; Nickel-Plated Steel

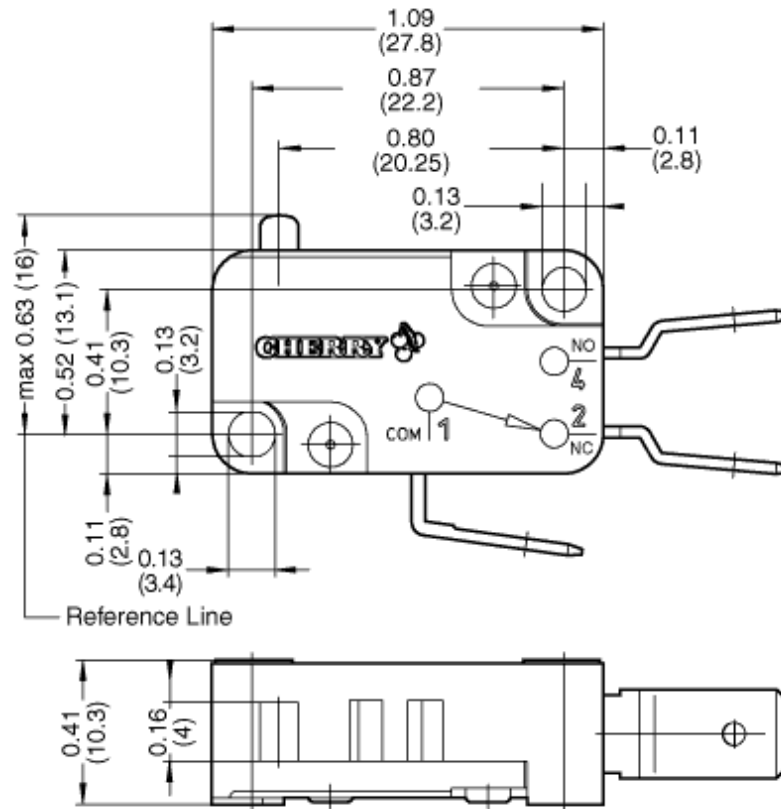
Terminals: Copper-Zinc

Contacts: Silver Cadmium Oxide

## Approvals



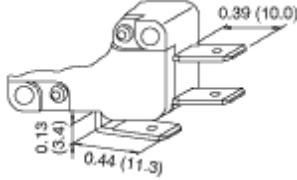
## Dimensions

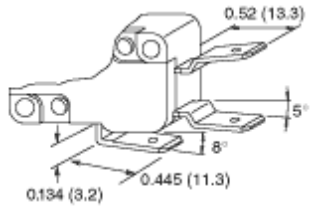




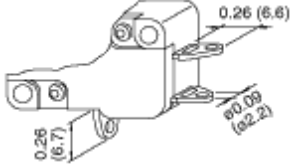
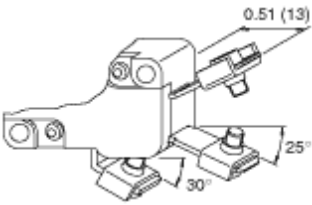


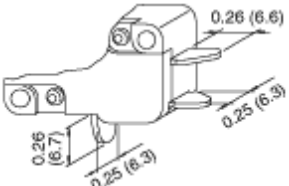
Inches (mm)

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### Terminals

Order Code	Terminal Type	Dimensions inch (mm)	Detail (click for larger view)	Available for These Switches		
				Standard Force	Light Force	Contact Gap >0.12 in (3mm)
V1	QC (Quick Connect), Straight	0.248 x 0.031 (6.3 x 0.8)		—	—	yes

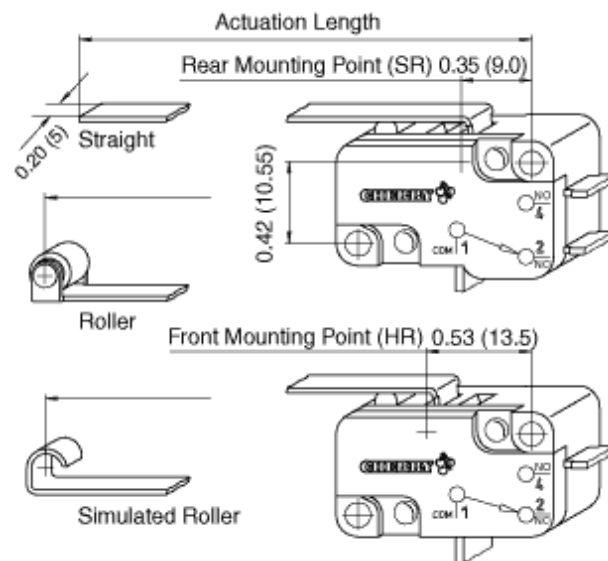
<b>V3</b>	QC, Dog Leg	0.248 x 0.031 (6.3 x 0.8)		yes	yes	yes
<b>Q1</b>	QC, Straight	0.189 x 0.031 (4.8 x 0.8)		—	—	yes
<b>Q3</b>	QC, Dog Leg	0.189 x 0.031 (4.8 x 0.8)		yes	yes	yes
<b>C1</b>	QC, Bifurcated, Straight	0.11 x 0.031 (2.8 x 0.8)		—	—	yes
<b>C3</b>	QC, Bifurcated, Dog Leg	0.11 x 0.031 (2.8 x 0.8)		—	—	yes
<b>S8</b>	Solder	see illustration at right		yes	yes	yes
<b>W9</b>	Screw	see illustration at right		yes	yes	yes

A8	Welding	see illustration at right		yes	yes	yes
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## Actuators

### Auxiliary Actuators



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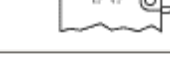

### Actuator Specifications — Standard and Light Force


Actuator Type	Switch Type	Maximum Operating Force (cN)	Max. Pre-Travel inches (mm)	Operating Point* inches (mm)	Min. Over-Travel inches (mm)	Max. Movement Differential inches (mm)	Max. Rest Position inches (mm)	Actuation Length** inches (mm)
		D38						
AA		400	0.059 (1.5)	0.559/0.598 (14.2/15.2)	0.047 (1.2)	0.012 (0.3)	0.63 (16.0)	N/A
JA or LA		425	0.063 (1.6)	0.579/0.618 (14.7/15.7)	0.039 (1.0)	0.016 (0.4)	0.66 (16.8)	0.835 (21.2)
JD or LD		200	0.138 (3.5)	0.551/0.646 (14.0/16.4)	0.083 (2.1)	0.031 (0.8)	0.75 (19.1)	1.402 (35.6)
JL or LL		80	0.311 (7.9)	0.488/0.709 (12.4/18.0)	0.193 (4.9)	0.071 (1.8)	0.97 (24.6)	2.752 (69.9)
KA or MA		265	0.106 (2.7)	0.567/0.630 (14.4/16.0)	0.067 (1.7)	0.024 (0.6)	0.71 (18.0)	1.012 (25.7)
KD or MD		120	0.232 (5.9)	0.528/0.669 (13.4/17.0)	0.146 (3.7)	0.051 (1.3)	0.85 (21.6)	1.579 (40.1)
KL or ML		50	0.528 (13.4)	0.433/0.764 (11.0/19.4)	0.335 (8.5)	0.118 (3.0)	1.19 (30.1)	2.929 (74.4)

**Note: All "J" and "K" type actuators are stainless steel.**  
 J and L types are Standard Ratio; K and M types are High Ratio.  
 Forces and travel for Roller and Simulated Roller Types available upon request. Consult factory.

\*Measured above reference line. Refer to dimensional drawing above.  
 \*\*Actuation tolerance  $\pm 0.031$  inches (0.8mm)

Actuator Specifications — Contact Gap >0.12 inch (3mm)

Part No. Suffix	Actuator Type	Switch Type	Maximum Operating Force (cN)	Max. Pre-Travel inches (mm)	Operating Point* inches (mm)	Min. Over-Travel inches (mm)	Max. Movement Differential inches (mm)	Max. Rest Position inches (mm)	Actuation Length** inches (mm)	
AA	Button		500	0.075 (1.9)	0.567 ±0.020 (14.4±0.5)	0.028 (0.7)	0.047 (1.2)	0.63 (16.0)	N/A	
JA or LA	Straight, SR		550	0.075 (1.9)	0.587 ±0.020 (14.9±0.5)	0.024 (0.6)	0.047 (1.2)	0.66 (16.8)	0.835 (21.2)	
JD or LD	Straight, SR		240	0.177 (4.5)	0.575 ±0.047 (14.6±1.2)	0.047 (1.2)	0.102 (2.6)	0.76 (19.2)	1.402 (35.6)	
JL	Straight, SR		100	0.425 (10.8)	0.520 ±0.110 (13.2±2.8)	0.126 (3.2)	0.256 (6.5)	0.98 (25.0)	2.752 (69.9)	
KA or MA	Straight, HR		320	0.134 (3.4)	0.579 ±0.031 (14.7±0.8)	0.035 (0.9)	0.079 (2.0)	0.71 (18.0)	1.012 (25.7)	
KD or MD	Straight, HR		150	0.295 (7.5)	0.563 ±0.075 (14.3±1.9)	0.075 (1.9)	0.177 (4.5)	0.86 (21.8)	1.579 (40.1)	
KL	Straight, HR		65	0.669 (17.0)	0.512 ±0.165 (13.0±4.2)	0.165 (4.2)	0.409 (10.4)	1.21 (30.8)	2.929 (74.4)	
RA	Roller, SR		forces and travel available upon request							0.811 (20.6)
RD	Roller, SR		forces and travel available upon request							1.343 (34.1)
SA	Simulated Roller, SR		forces and travel available upon request							0.811 (20.6)
TA	Roller, HR		forces and travel available upon request							0.988 (25.1)
TD	Roller, HR		forces and travel available upon request							1.520 (38.6)

UA	Simulated Roller, HR		forces and travel available upon request	0.988 (25.1)
<p><b>Note: All "J" and "K" type actuators are stainless steel.</b>                  SR = Standard Ratio, HR = High Ratio.</p> <p>*Measured above reference line. Refer to dimensional drawing above.                  **Actuation tolerance ±0.031 inches (0.8mm)</p>				

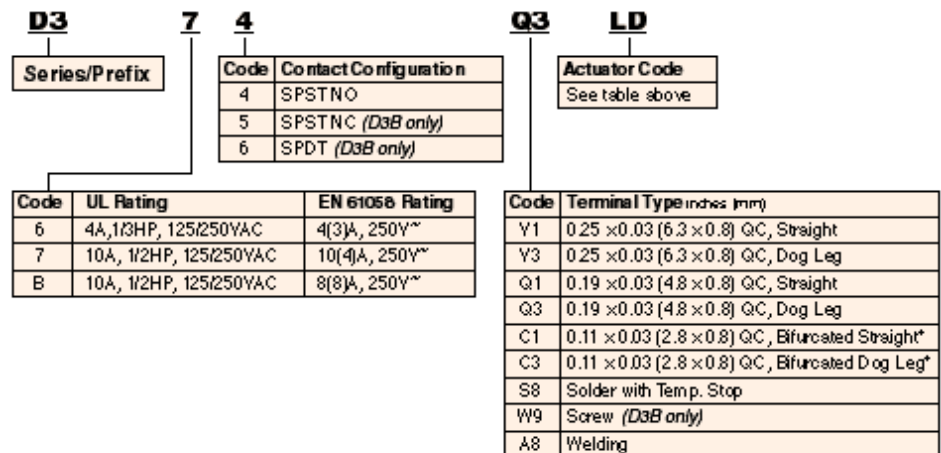
Ordering Information — Standard and light force

<b>D3</b>	<b>8</b>	<b>3</b>	<b>Q3 L</b>	<b>D</b>	
Series/Prefix		Code	Contact Configuration	Code	
		Standard Operating Force		Actuation Length inches (mm)	
		1	SPSTNO	A	D
		2	SPSTNC		L
		3	SPDT		
		Light Operating Force			
		7	SPSTNO		
		8	SPSTNC		
		9	SPDT		
		Code	Terminal Type inches (mm)		
		Y3	0.25 x 0.031 (6.3 x 0.8) QC		
		Q3	0.189 x 0.031 (4.8 x 0.8) QC		
		S8	Solder with Temp. Stop		
		W9	Screw		
		A8	Welding		
		Note: PCB terminals available upon request.			
Code	Current Rating				
Standard Force					
8	16A, 125/250VAC, 1HP (UL, CSA) 16(2.5)A, 250V~; 10(1.5)A, 400V~ (ENEC)				
Code	Actuator	Code			
AA	Button				
J	Straight, Stainless, SR	0.835 (21.2)	1.402 (35.6)	2.752 (69.9)	
K	Straight, Stainless, HR	1.012 (25.7)	1.579 (40.1)	2.929 (74.4)	
L	Straight, SR	0.835 (21.2)	1.402 (35.6)	2.752 (69.9)	
M	Straight, HR	1.012 (25.7)	1.579 (40.1)	2.929 (74.4)	
R	Roller, SR	0.811 (20.6)	1.343 (34.1)		
S	Simulated Roller, SR	0.811 (20.6)			
T	Roller, HR	0.988 (25.1)	1.520 (38.6)		
U	Simulated Roller, HR	0.988 (25.1)			

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Ordering Information — Contact Gap >0.12 inch (3mm)





Note: PC B terminals available upon request.

\*D3B only.

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Specifications subject to change without notice.