

# D3 Series

## Miniature Snap-Action Switches



- ▶ [Back to Main Products Page](#)
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- ▶ [Switch Parametric Search](#)

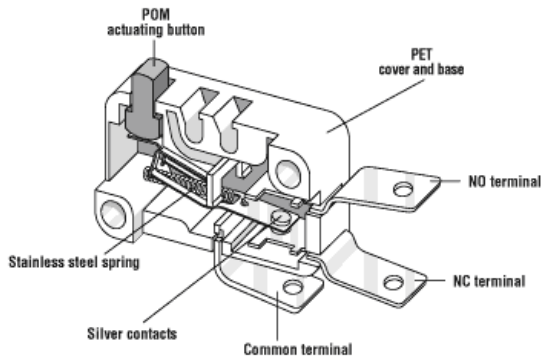
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### Features

- 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

Cherry D3 Series Miniature Snap-Action Switch

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

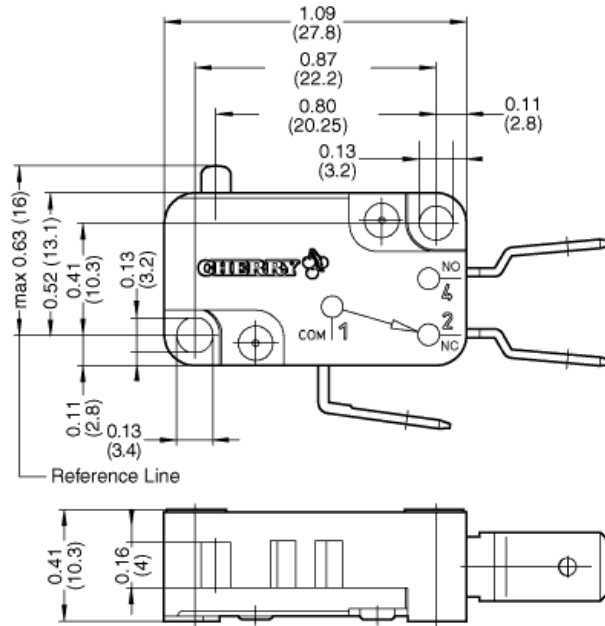
Terminals: Copper-Zinc

Contacts: Silver Cadmium Oxide

### Approvals



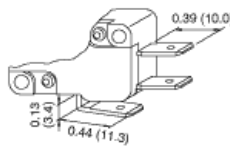
### Dimensions

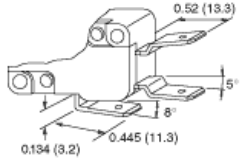




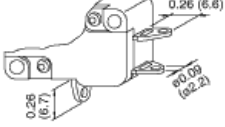
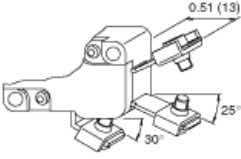


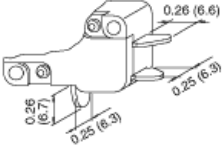
Inches (mm)

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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

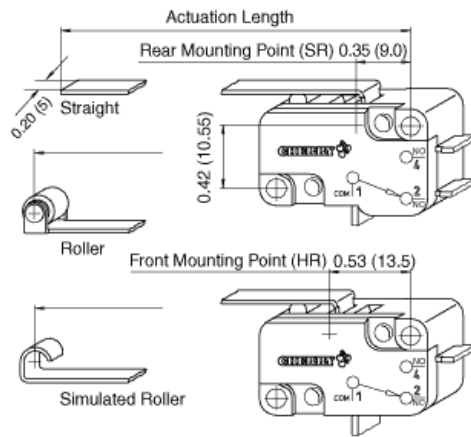
<b>V3</b>	QC, Dog Leg	0.248 x 0.031 (6.3 x 0.8)		yes	yes	yes
<b>Q1</b>	QC, Straight	0.189 x 0.031 (4.8 x 0.8)		—	—	yes
<b>Q3</b>	QC, Dog Leg	0.189 x 0.031 (4.8 x 0.8)		yes	yes	yes
<b>C1</b>	QC, Bifurcated, Straight	0.11 x 0.031 (2.8 x 0.8)		—	—	yes
<b>C3</b>	QC, Bifurcated, Dog Leg	0.11 x 0.031 (2.8 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)
<p><b>Note: All "J" and "K" type actuators are stainless steel.</b>                      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.</p>								
<p>*Measured above reference line. Refer to dimensional drawing above.                      **Actuation tolerance ±0.031 inches (0.8mm)</p>								

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	Actuation Length inches (mm)	
			Standard Operating Force	A	D	L
<b>Code</b>	<b>Current Rating</b>	1	SPSTNO	AA	Button	—
	<b>Standard Force</b>	2	SPSTNC	J	Straight, Stainless, SR	0.835 (21.2) 1.402 (35.6) 2.752 (69.9)
8	16A, 125/250VAC, 1HP (UL, CSA) 16(2.5)A, 250V**; 10(1.5)A, 400V** (ENEC)	3	SPDT	K	Straight, Stainless, HR	1.012 (25.7) 1.579 (40.1) 2.929 (74.4)
			Light Operating Force	L	Straight, SR	0.835 (21.2) 1.402 (35.6) 2.752 (69.9)
		7	SPSTNO	M	Straight, HR	1.012 (25.7) 1.579 (40.1) 2.929 (74.4)
		8	SPSTNC	R	Roller, SR	0.811 (20.6) 1.343 (34.1) —
		9	SPDT	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) — —
		<b>Code</b>	<b>Terminal Type inches (mm)</b>			
		Y3	0.25 × 0.031 (6.3 × 0.8) GC			
		Q3	0.189 × 0.031 (4.8 × 0.8) GC			
		S8	Solder with Temp. Stop			
		W9	Screw			
		A8	Welding			

Note: PCB terminals available upon request.

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



<b>D3</b>			<b>7</b>		<b>4</b>		<b>Q3</b>		<b>LD</b>		
<b>Series/Prefixed</b>			<b>Code</b>		<b>Contact Configuration</b>		<b>Actuator Code</b>		See table above		
			4		SPSTNO						
			5		SPSTNC ( <i>D3B only</i> )						
			6		SPDT ( <i>D3B only</i> )						
<b>Code</b>	<b>UL Rating</b>	<b>EN 61058 Rating</b>	<b>Code</b>	<b>Terminal Type (inches mm)</b>							
6	4A, 1/3HP, 125/250VAC	4(3)A, 250V~	Y1	0.25 x 0.03 (6.3 x 0.8) QC, Straight							
7	10A, 1/2HP, 125/250VAC	10(4)A, 250V~	Y3	0.25 x 0.03 (6.3 x 0.8) QC, Dog Leg							
B	10A, 1/2HP, 125/250VAC	8(8)A, 250V~	Q1	0.19 x 0.03 (4.8 x 0.8) QC, Straight							
			Q3	0.19 x 0.03 (4.8 x 0.8) QC, Dog Leg							
			C1	0.11 x 0.03 (2.8 x 0.8) QC, Bifurcated Straight*							
			C3	0.11 x 0.03 (2.8 x 0.8) QC, Bifurcated Dog Leg*							
			S8	Solder with Temp. Stop							
			W9	Screw ( <i>D3B only</i> )							
			A8	Welding							

Note: PCB terminals available upon request.  
 \*D3B only.

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Specifications subject to change without notice.