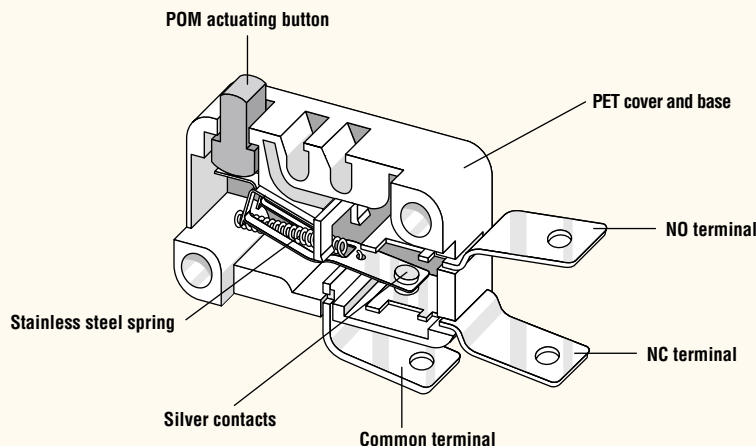


# MINIATURE D3 Series

## 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



## Electrical Ratings

Switch Series	EN61058 Rating	UL1054 Rating	Electrical Life at Rated Load	
			According to EN (Min. Operations)	According to UL (Min. Operations)
<b>D36 – Std.</b>	4(2.5)A, 250V~	4A, 250VAC	50,000	6,000
<b>D37 – Std.</b>	10(3)A, 250V~	10A, 1/2HP, 125/250VAC	50,000	6,000
<b>D38 – Std.</b>	16(4)A, 250V~ 10(3)A, 400V~	16A, 125/250VAC, 1HP	50,000	6,000
<b>D36 – Light</b>	4(1)A, 250V~	4A, 250VAC	50,000	6,000
<b>D37 – Light</b>	10(2)A, 250V~	10A, 1/2HP, 125/250VAC	50,000	6,000
<b>D38 – Light</b>	16(2.5)A, 250V~ 10(1.5)A, 400V~	16A, 125/250VAC, 1HP	50,000	6,000

## Specifications

### Electrical

Temperature Rating:	-40° to +85°C
Flammability Rating:	UL94V-O

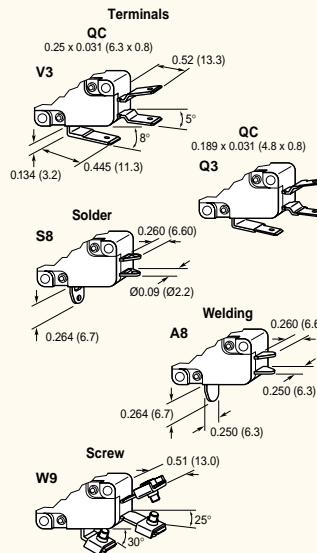
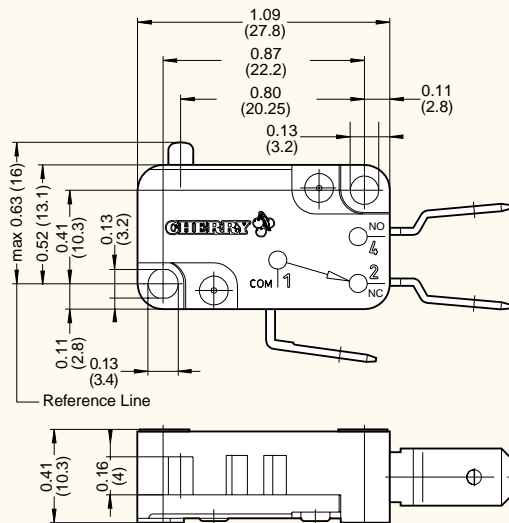
### Materials

Case:	PET
Actuator:	POM
Auxiliary Actuator:	Stainless Steel; Nickel-Plated Steel
Terminals:	Copper-Zinc
Contacts:	Silver Cadmium Oxide

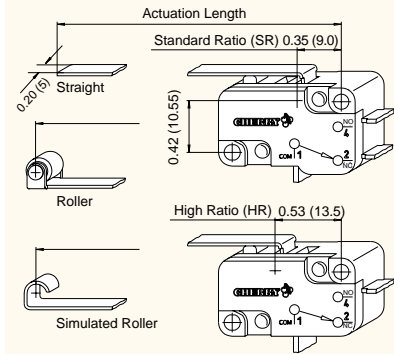
PET = Polyethyleneterephthalate • POM = Polyacetal



## Dimensions inches (mm)



## Auxiliary Actuators



## Actuator Specifications

Actuator Type	Switch Type	Maximum Operating Force (cN)						Maximum Pre-Travel inches (mm)	Operating Point* inches (mm)	Minimum Over-Travel inches (mm)	Max. Differential inches (mm)	Max. Rest Position inches (mm)	Actuation Length** inches (mm)
		D36 Std.	D37 Std.	D38 Std.	D36 Light	D37 Light	D38 Light						
AA		170	260	400	60	130	200	0.059 (1.5)	0.559/0.598 (14.2/15.2)	0.047 (1.2)	0.012 (0.3)	0.63 (16.0)	—
MA/KA		120	170	265	40	85	130	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)
MD/KD		50	80	120	18	40	60	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)
ML/KL		22	35	50	10	18	25	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)
LA/JA		180	280	425	65	140	210	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)
LD/JD		80	130	200	30	65	100	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)
LL/JL		35	55	80	15	28	40	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)

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

## Ordering Information

D3		7	
Series/Prefix			
Code	Current Rating		
<b>Standard Force</b>			
6	4A, 250VAC (UL, CSA) 4(2.5)A, 250V~ (ENEC)		
7	10A, 1/2HP, 125/250VAC (UL, CSA); 10(3)A, 250V~ (ENEC)		
8	16A, 125/250VAC, 1HP (UL, CSA) 16(4)A, 250V~; 10(3)A, 400V~ (ENEC)		
<b>Light Force</b>			
6	4A, 250VAC (UL, CSA) 4(1)A, 250V~ (ENEC)		
7	10A, 1/2HP, 125/250VAC (UL, CSA) 10(2)A, 250V~ (ENEC)		
8	16A, 125/250VAC, 1HP (UL, CSA) 16(2.5)A, 250V~; 10(1.5)A, 400V~ (ENEC)		

3		—		Q3		L	
Code	Contact Configuration			Standard Operating Force			
1	SPST NO						
2	SPST NC						
3	SPDT						
<b>Light Operating Force</b>							
7	SPST NO						
8	SPST NC						
9	SPDT						

Code	Terminal Type inches (mm)	
V3	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.

D		Actuation Length inches (mm)		
Code	Actuator Type	A	D	L
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)	—	—

# Contact Gap >3mm (0.12 inch)

## Electrical Ratings

Switch Series	EN61058 Rating	UL1054 Rating	Electrical Life at Rated Load	
			According to EN (Min. Operations)	According to UL (Min. Operations)
D36	4(3)A, 250V~	4A, 250VAC, 1/3HP 125/250VAC	50,000	10,000
D37	10(4)A, 250V~	10A, 1/2HP, 125/250VAC	50,000	6,000
D3B	8(8)A, 250V~	10A, 1/2HP, 125/250VAC	50,000	10,000

## Actuator Specifications

Actuator Code	Switch Type	Maximum Operating Force (cN)	Maximum Pre-Travel inches (mm)	Operating Point* inches (mm)	Minimum Over-Travel inches (mm)	Max. Movement Differential inches (mm)	Max. Rest Position inches (mm)	Actuation Length inches (mm)	
AA		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)	—	
MA/KA		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)	
TA		forces and travel available upon request							0.988 (25.1)
UA		forces and travel available upon request							0.988 (25.1)
MD/KD		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)	
TD		forces and travel available upon request							1.520 (38.6)
KL		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)	
LA/JA		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)	
RA		forces and travel available upon request							0.811 (20.6)
SA		forces and travel available upon request							0.811 (20.6)
LD/JD		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)	
RD		forces and travel available upon request							1.343 (34.1)
JL		100	0.425 (10.8)	0.520±0.110 (13.2±2.8)	0.126 (3.2)	0.256 (6.5)	0.098 (25.0)	2.752 (69.9)	

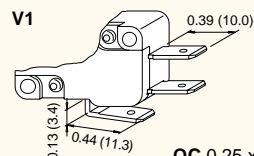
## Ordering Information

<b>D3</b>	<b>7</b>	<b>4</b>	<b>Q3</b>	<b>LD</b>
Series/Prefix		Code	Actuator Code	See table above
		4 SPST NO		
		5 SPST NC (D3B only)		
		6 SPDT (D3B only)		
<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~	V1	0.25 x 0.03 (6.3 x 0.8) QC, Straight
7	10A, 1/2HP, 125/250VAC	10(4)A, 250V~	V3	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 (D3B only)
			A8	Welding

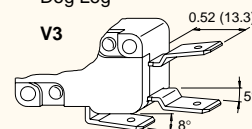
Note: PCB terminals available upon request.  
\*D3B only.

## Terminal Options

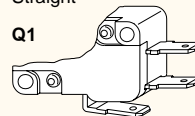
QC 0.25 x 0.03 (6.3 x 0.8)



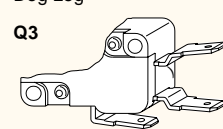
QC 0.25 x 0.03 (6.3 x 0.8)  
Dog Leg



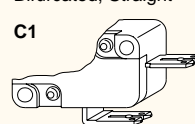
QC 0.19 x 0.03 (4.8 x 0.8)  
Straight



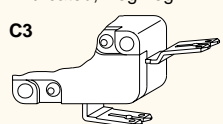
QC 0.19 x 0.03 (4.8 x 0.8)  
Dog Leg



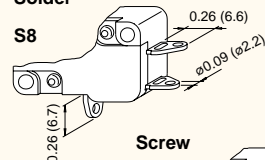
QC 0.11 x 0.03 (2.8 x 0.8)  
Bifurcated, Straight



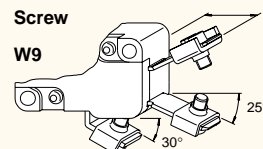
QC 0.11 x 0.03 (2.8 x 0.8)  
Bifurcated, Dog Leg



Solder



Screw  
W9



Welding

