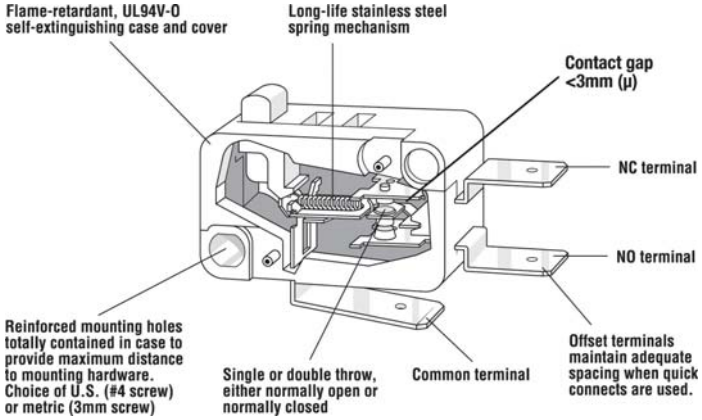
Miniature Snap Action Switch

D4 Series



Features

- 6 current ratings
- Various terminal types
- Cadmium-free contact material available
- Choice of standard or light operating force
- Long life coil spring mechanism
- Agency approved extended life versions
- ENEC/VDE approval standard
- Tracking index PTI 300 according to IEC 6011
- UL File number E314201

Electrical Ratings

Switch Series	EN61058 Rating	UL1054 Rating	Electrical Life at Rated Load at 85° C	
			According to EN (Min. Operations)	According to UL (Min. Operations)
D41	0.1(0.05)A, 250V~; 0.5A 30VDC	0.1A, 125/250VAC; 0.5A 30VDC, 1A 125VAC *(6k life only)*	50,000	6,000*
D42	3(1)A, 250V~	3A, 125/250VAC; 1/10HP, 250VAC	50,000	6,000*
D43	6(2)A, 250V~	5A, 125/250VAC, 1/4HP, 250VAC	50,000	6,000*
D44	10(3)A, 250V~	10A, 1/2HP, 125/250VAC	50,000	6,000*
D45	16(4)A, 250V~ 10(3)A, 400V~*(Std. force only)*	15A, 1/2HP, 125/250VAC	50,000	6,000*
D48	21(8)A, 250V~	21A, 250VAC; 1HP, 125VAC; 2HP, 250VAC	10,000	6,000

Operating life for 125°C and 150°C available upon request.

*Denotes extended life versions available

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Electrical Specifications			
Temperature Rating:	-40° to +85°C, 125°C or 150°C	**Flammability Rating:**	UL 94V-0

Materials			
Case/Cover:	Thermoplastic Polyester (PET)	**NO/NC Terminals**	Brass
Actuating Button:	Thermoplastic Acetal (POM), 85°C Thermoplastic Polyester (PET), 125°C or 150°C	**Moving Blade:**	Silver Plated Brass
		Contacts:	Gold Crosspoint (D41)
Auxiliary Actuator:	Stainless Steel or Cold-Rolled Steel (Nickel-Plated)		Silver (D42)
Common Terminal:	Brass		Silver Alloy (D43-D48)

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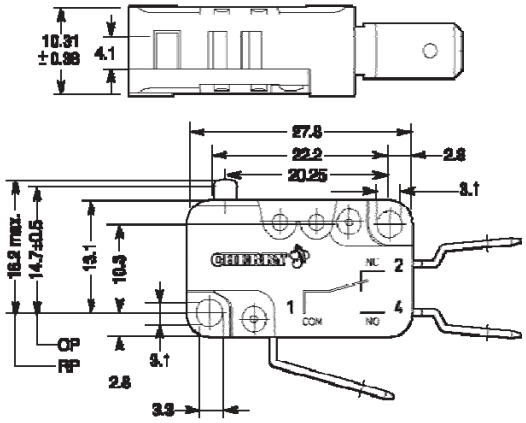
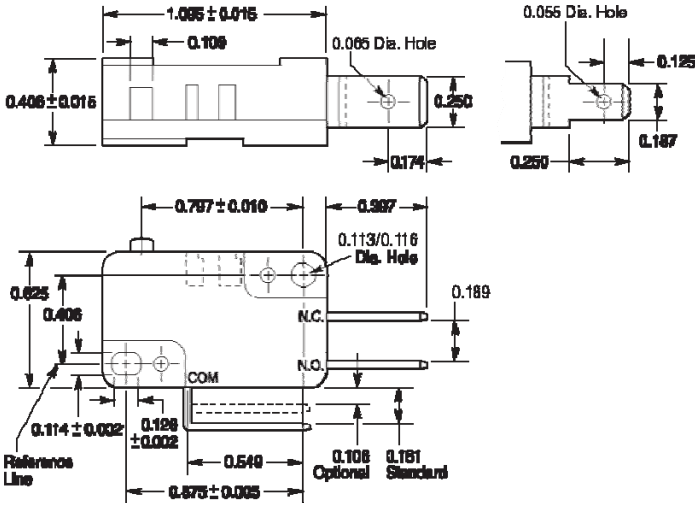
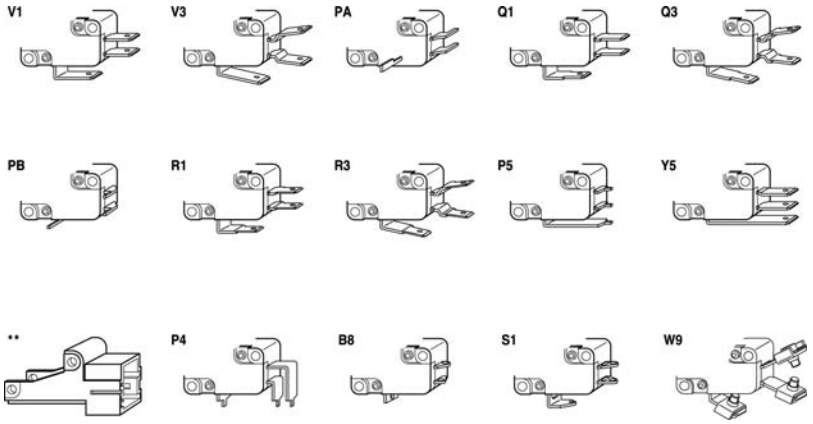
European Version (mm)



U.S. Version (Inches)



Terminals



* Connector part #823-0518 (mates with Y5 only)

** Connector housing for RAST 5 QC terminals

Actuators

Many special forms and lengths of actuators are available. Standard type integral hinged lever and roller actuators are available in choice of 2 mounting positions. Actuation lengths are dimensioned from centerline of switch

mounting hole as shown below.

Identifiers

Switches with a “standard” operating force are identified by a ‘Y’ next to the standard model description, e.g. D43Y.

Switches with a “light” operating force are identified by an ‘X’ next to the standard model description, e.g. D43X.

Switches with 100,000 cycles approved per UL1054 are marked with ‘L’ in circle.

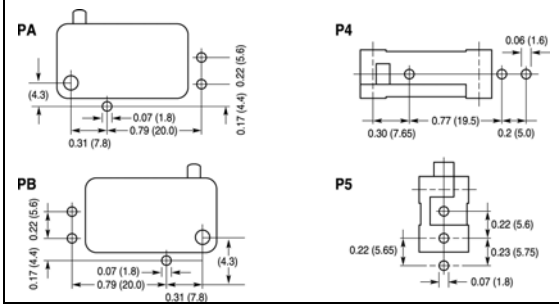
Mounting — US Version

Recommended mounting screw size: #4-40 Round head with washer. Recommended torque on screw: 60 NCM max.

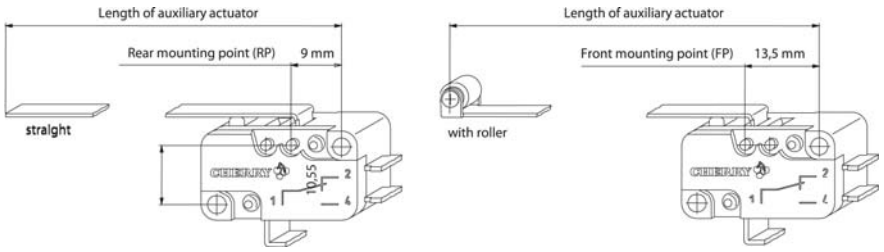
Mounting — European Version

Recommended mounting screw size with washer: M3. Recommended torque on screw: 60 NCM max.

Drilling Patterns for PCB Terminals



Length of Auxiliary Actuator



CHERRY®

Miniature Snap Action Switch

D4 Series

Commonly Stocked Distributor Items

Item Number	EN Rating	UL Rating	Terminals	Maximum Operating Force (cN)	Maximum Pretravel inches (mm)	Operating Point inches (mm)	Minimum Overtravel inches (mm)	Max. Movement Differential inches (mm)	Actuation Length inches (mm)	Housing Mark
D41CR1AA	0.1 (0.05) 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	0.187" x 0.020"	170	0.047" (1.2)	0.559 / 0.599 (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D41Y
D41CR1LA	0.1 (0.05) 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	0.187" x 0.020"	190	0.047" (1.2)	0.579" / .618" (14.7 / 15.7)	0.035" (0.9)	0.012" (0.3)	0.835" (21.2)	D41Y
D41CR1LD	0.1 (0.05) 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	0.187" x 0.020"	86	0.126" (3.2)	0.551" / 0.646" (14.0 / 16.4)	0.090" (2.3)	0.031" (0.8)	1.40" (35.6)	D41Y
D41CR1RA	0.1 (0.05) 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	0.187" x 0.020"	190	0.047" (1.2)	0.776" / 0.839" (19.7 / 21.3)	0.039" (1.0)	0.012" (0.4)	0.811" (20.6)	D41Y
D41LR1AA	0.1 (0.05) 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	0.187" x 0.020"	45	0.047" (1.2)	0.559" / 0.599" (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D41X
D42LR1AA	3(1) A, 250 VAC	3A, 125/250 VAC, 1/10 HP, 250 VAC	0.187" x 0.020"	45	0.047" (1.2)	0.559" / 0.599" (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D42X
D42LRGAA	3(1) A, 250 VAC	3A, 125/250 VAC, 1/10 HP, 250 VAC	0.187" x 0.020"	2	0.500" (12.7)	0.433" / 0.764" (11.0 / 19.4)	0.311" (7.9)	0.098" (2.5)	2.93" (74.4)	D42X
D43CR1AA	6(2) A, 250 VAC	5A, 125/250 VAC 1/4 HP, 250 VAC	0.187" x 0.020"	170	0.047" (1.2)	0.559" / 0.599" (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D43Y
D44CR1AA	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	285	0.047" (1.2)	0.559" / 0.599" (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D44Y
D44CR1LD	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	144	0.126" (3.2)	0.551" / 0.646" (14.0 / 16.4)	0.090" (2.3)	0.031" (0.8)	1.40" (35.6)	D44Y
D44CR1RA	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	330	0.047" (1.2)	0.776" / 0.839" (19.7 / 21.3)	0.039" (1.0)	0.012" (0.4)	0.811" (20.6)	D44Y
D44CR1RD	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	144	0.126" (3.2)	0.764" / 0.850" (19.4 / 21.6)	0.087" (2.2)	0.031" (0.8)	1.34" (34.1)	D44Y
D44LR1AA	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" X 0.020"	75	0.047" (1.2)	0.559" / 0.599" (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D44X
D44LR1LD	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	40	0.126" (3.2)	0.551" / 0.646" (14.0 / 16.4)	0.090" (2.3)	0.031" (0.8)	1.40" (35.6)	D44X
D44LR1LL	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	17	0.030" (7.6)	0.472" / .724" (12.0 / 18.4)	0.185" (4.7)	0.067" (1.7)	2.75" (69.9)	D44X
D44LR1MD	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	25	0.020" (5.1)	0.535" / 0.661" (13.6 / 16.8)	0.142" (3.6)	0.051" (1.3)	1.58" (40.1)	D44X
D44LR1ML	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	10	0.050" (12.7)	0.433" / .763" (11.0 / 19.4)	0.311" (7.9)	0.098" (2.5)	2.92" (74.4)	D44X
D44LR1RA	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	75	0.047" (1.2)	0.776" / 0.839" (19.7 / 21.3)	0.039" (1.0)	0.012" (0.4)	0.811" (20.6)	D44X
D44LR1RD	10(3) A, 250 VAC	10 A, 1/2 HP, 125/250 VAC 6 A, 30 VDC	0.187" x 0.020"	40	0.126" (3.2)	0.764" / 0.850" (19.4 / 21.6)	0.087" (2.2)	0.031" (0.8)	1.34" (34.1)	D44X
D45CR1AA		15 A, 1/2 HP, 125/250 VAC	0.187" x 0.020"	400	0.047" (1.2)	0.559" / 0.599" (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D45Y
D45LR1AA		15 A, 1/2 HP, 125/250 VAC	0.187" x 0.020"	100	0.047" (1.2)	0.559" / 0.599" (14.2 / 15.2)	0.05" (1.3)	0.012" (0.3)	N/A	D45X
D45LR1LL		15 A, 1/2 HP, 125/250 VAC	0.187" x 0.020"	22	0.030" (7.6)	0.472" / .724" (12.0 / 18.4)	0.185" (4.7)	0.067" (1.7)	2.75" (69.9)	D45X
D45LR1ML		15 A, 1/2 HP, 125/250 VAC	0.187" x 0.020"	13	0.050" (12.7)	0.433" / .763" (11.0 / 19.4)	0.311" (7.9)	0.098" (2.5)	2.92" (74.4)	D45X

Miniature Snap Action Switch

D4 Series

Ordering Information

D4 **3**

Series/Prefix

Code	Electrical Rating	
	EN61058-1	UL 1054
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, 1/4 HP, 250 VAC
4	10(3)A, 250 VAC	10 A, 125-250 VAC; 6A 30 VDC, 1/2 HP, 125-250 VAC
5	16(4) A, 250 VAC	15 A, 125-250 VAC 1/2 HP, 125-250 VAC
8	21(8) A, 250 VAC	21 A, 250 VAC 1 HP, 125 VAC; 2 HP, 250 VAC

3

Code			Operating Force	Temperature Rating	Mounting Holes
Contact Configuration					
SPST NO	SPST NC	SPDT			
1	2	3	Standard "Y"	T85	International Version
7	8	9	Light "X"		
G	H	M	Standard "Y"	T125	
N	P	R	Light "X"		
S	T	U	Light "X"	T150	
A	B	C	Standard "Y"	T85	U.S. Version
J	K	L	Light "X"		
D	E	F	Standard "Y"	T125	
4	5	6	Light "X"	T150	

Q

Code	Terminal Type
A	Welding
B	Solder short
P	PCB
Q	Tab. 4.8x0.8
R	Tab. 4.8x0.5
S	Solder with Temp. Stop
V	Tab. 6.3x0.8
W	Screw
Y	Tab. 6.3x0.8 RAST 5

1

Code	Terminal Configuration
1	
3	
4	
5	
8	
9	
A	
B	

L **D**

Code	Code			Pivot Position	Auxiliary Actuator
	Length in mm				
	A	D	L		
AA					without
L	21,2	35,6	69,9	RP	straight steel
M	25,7	40,1	74,4	FP	
J	21,2	35,5	69,9	RP	straight stainless steel
K	25,7	40,1	74,4	FP	
R	20,6	34,1		RP	with roller
T	25,1	38,5		FP	
S	20,6			RP	with simulated roller
U	25,1			FP	

Specifications subject to change without notice

Mounting — US Version

Recommended mounting screw size: #4-40 Round head with washer. Recommended torque on screw: 60 NCM max.

Mounting — European Version

Recommended mounting screw size with washer: M3.

Recommended torque on screw: 60 NCM max.

Notes:

- D48 only available as light force
- D45 not VDE approved with terminal code ‘R’
- D48 only available with terminal codes ‘A’, ‘S’, or ‘V’

Contact

Call, fax or visit our Website for more information.

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The manufacturer accepts no liability for errors or non-availability, and reserves the right to change specifications without prior notice.

Technical data relates to product specifications only. Features may differ from those described. Only drawings combined with product specifications shall be deemed binding.

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