

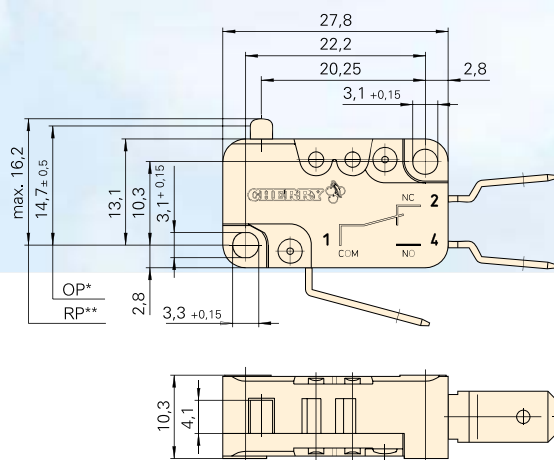
## D4 miniature switch






### Features

- Versatile snap switch with various auxiliary actuators and mounting points
- Fulfills requirements of IEC 60335-1: GWFI at 850 °C, GWIT at 775 °C and GWT 750 °C
- Reliable in operation, with high level of repeat accuracy
- High contact stability thanks to application-specific contact materials for switching currents of 0.1 to 21 A at 250 VAC
- Ambient temperature -40 to max. +150 °C
- EN 61058 and UL 1054-approved
- Cadmium-free contact material

### Dimensions in mm



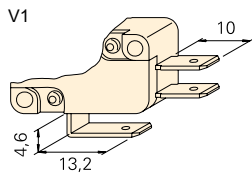
### Technical specifications

Contact configuration	S.P.D.T., S.P.S.T. - N.O., S.P.S.T. - N.C.
Contact gap	< 3 mm (μ)
Switching voltage	250 V AC (400 V on request)
Switched current max.	< 0,1 to 21 A, depending on model
Total travel	2,6 mm
Mechanical life	> 2 x 10 <sup>5</sup> to 1 x 10 <sup>7</sup> operations
Electrical life	see table
Ambient temperature	40T85; 40T125; 40T150
Proof tracking index	PTI 300
Materials	
Housing/Cover	PET (UL 94V-0)
Actuator	POM (max. 85 °C) PET alternative (UL 94 V-0)
Contact material D41	AuAgPt (Crosspoint)
D42	Ag
D43 - D48	AgNi
Terminals	CuZn alternative Cu
Auxiliary actuator	nickel-plated steel, alternative stainless steel
Approvals	  
Degree of protection (switch interior)	IP40

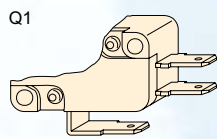
For detailed information and the layout of the details described above, please do not hesitate to ask for our technical specifications and drawing.

## Terminals

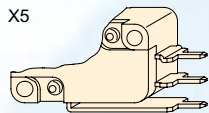
Q.C. terminal 6.3 x 0.8  
straight



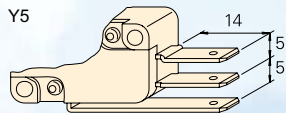
Q.C. terminal 4.8 x 0.8  
straight



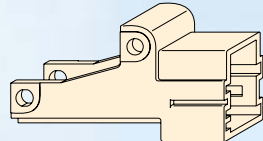
Q.C. terminal  
RAST 2.5



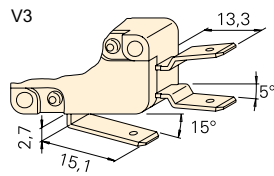
Q.C. terminal 6.3 x 0.8  
RAST 5



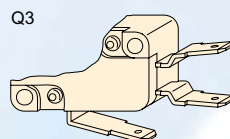
Connector housing for Q.C. terminals  
6.3 x 0.8, RAST 5



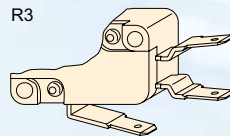
Q.C. terminal 6.3 x 0.8  
dog-leg



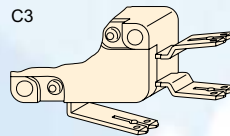
Q.C. terminal 4.8 x 0.8  
dog-leg



Q.C. terminal 4.8 x 0.5  
dog-leg

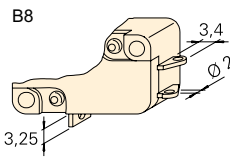


Q.C. terminal 2.8 x 0.8  
bifurcated dog-leg

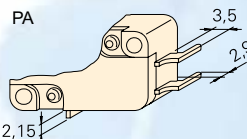


Other terminals available on request.

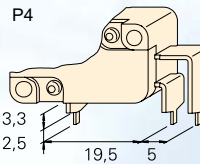
Solder terminal, short



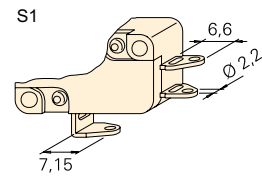
PCB terminal  
1.3 x 0.8 housing side



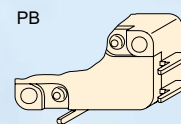
PCB terminal  
1.3 x 0.5 underside



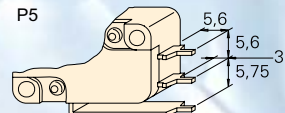
Solder terminal with  
temperature-stop



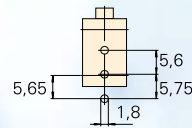
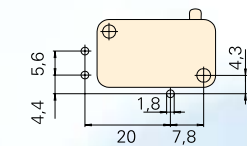
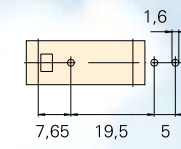
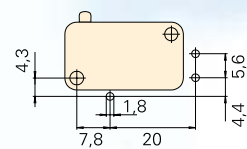
PCB terminal  
1.3 x 0.8 cover side



PCB terminal  
1.3 x 0.8 rear



## Drilling patterns for PCB terminals

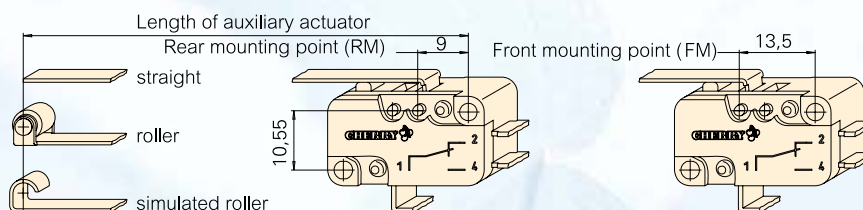


## Electrical rating and operating life (2)

Electrical rating according to EN 61058		UL 1054	Electrical life for 40T85* acc. to EN acc. to UL (operations)		Mechanical life actuator material POM PET		Max. operating force (cN)	Code
<b>Standard operating force</b>								
0,1 (0,05) A, 250 V AC	0,1 A 125–250 V AC		50.000	6.000	10 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	170**	1
3 (1) A, 250 V AC	3 A, 125–250 V AC 1/10 HP 250 V AC		50.000	6.000	10 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	170**	2
6 (2) A, 250 V AC	5 A, 125–250 V AC, 1/4 HP 250 V AC		50.000	6.000	5 x 10 <sup>6</sup>	25 x 10 <sup>4</sup>	170	3
10 (3) A, 250 V AC	10 A, 1/2 HP, 125–250 V AC		50.000	6.000	1 x 10 <sup>6</sup>	1 x 10 <sup>5</sup>	285	4
16 (4) A, 250 V AC	15 A, 1/2 HP, 125–250 V AC		50.000	6.000	2 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	400	5
10 (3) A, 400 V AC								
<b>Light operating force</b>								
0,1 (0,05) A, 250 V AC	0,1 A, 125–250 V AC		50.000	6.000	10 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	45**	1
3 (1) A, 250 V AC	3 A, 125–250 V AC, 1/10 HP 250 V AC		50.000	6.000	10 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	45**	2
6 (2) A, 250 V AC	5 A, 125–250 V AC, 1/4 HP 250 V AC		50.000	6.000	10 x 10 <sup>6</sup>	5 x 10 <sup>5</sup>	45	3
10 (3) A, 250 V AC	10 A, 1/2 HP, 125–250 V AC		50.000	6.000	10 x 10 <sup>6</sup>	25 x 10 <sup>4</sup>	75	4
16 (4) A, 250 V AC	15 A, 1/2 HP, 125–250 V AC		50.000	6.000	10 x 10 <sup>6</sup>	25 x 10 <sup>4</sup>	100	5
21 (8) A, 250 V AC	21 A, 250 V AC 1HP 125 V AC 2HP 250 V AC		10.000	6.000	3 x 10 <sup>6</sup>	25 x 10 <sup>4</sup>	150	8

\* Operating life for 40T125 and 40T150 on request

\*\* Lower operating forces on request



## Switching parameters

Model	Type	Max. operating force (cN)		Max. pretravel (mm)	Min. overtravel (mm)	Max. movement differential (mm)	Max. rest position (mm)	Operating point (mm)	Code
		Standard	Light						
Without auxiliary actuator	D41	170	45	1,2	1,3	0,3	16,2	14,7 ± 0,5	AA
	D42	170	45	1,2	1,3	0,3	16,2	14,7 ± 0,5	
	D43	170	45	1,2	1,3	0,3	16,2	14,7 ± 0,5	
	D44	285	75	1,2	1,3	0,3	16,2	14,7 ± 0,5	
	D45	400	100	1,2	1,3	0,3	16,2	14,7 ± 0,5	
	D48	–	150	1,6	1,2	0,3	16,2	14,7 ± 0,5	

### Contact configuration (3)

Contact configuration	
Ambient temperature 40T120	Code
Standard operating force	
S.P.S.T.-N.O.	1
S.P.S.T. - N.C.	2
S.P.D.T.	3
Light operating force	
S.P.S.T.-N.O.	7
S.P.S.T. - N.C.	8
S.P.D.T.	9
Contact configuration	
Ambient temperature 40T125	Code
Standard operating force	
S.P.S.T.-N.O.	G
S.P.S.T. - N.C.	H
S.P.D.T.	M
Light operating force	
S.P.S.T.-N.O.	N
S.P.S.T. - N.C.	P
S.P.D.T.	R
Contact configuration	
Ambient temperature 40T150*	
Light operating force	
S.P.S.T.-N.O.	S
S.P.S.T. - N.C.	T
S.P.D.T.	U

\* not for D48

### Terminals (4)

Type of terminal	Code
Q.C. terminal 6.3 x 0.8 mm, straight	V1
Q.C. terminal 6.3 x 0.8 mm, dog-leg	V3
Q.C. terminal 6.3 x 0.8 mm, RAST 5	Y5
Q.C. terminal, RAST 2,5	X5
Q.C. terminal 4.8 x 0.8 mm, straight*	Q1
Q.C. terminal 4.8 x 0.8 mm, dog-leg*	Q3
Q.C. terminal 4.8 x 0.5 mm, dog-leg**	R3
Q.C. terminal 2.8 x 0.8 mm, bifurcated, dog-leg	C3
Solder terminal, short*	B8
Solder terminal with temperature-stop	S1
Welding terminal	A1
PCB terminal 1.3 x 0.8 mm housing side*	PA
PCB terminal 1.3 x 0.8 mm cover side*	PB
PCB terminal 1.3 x 0.5 mm underside*	P4
PCB terminal 1.3 x 0.8 mm rear*	P5

\* not for D48 \*\* not for D45 and D48

### Auxiliary actuator options (5)

Model	Mounting point	Length	Code	Code
Without auxiliary actuator			AA	
Material			Nickel-plated steel	Optional stainless steel
Straight	RM rear	21,2	LA	JA
		35,6	LD	JD
		69,9	LL	JL
	FM front	25,7	MA	KA
		40,1	MD	KD
		74,4	ML	KL
Roller	RM rear	20,6	RA	
		34,1	RD	
	FM front	25,1	TA	
		38,6	TD	
Simulated roller	RM rear	20,6	SA	
	FM front	25,1	UA	

# Snap Switches