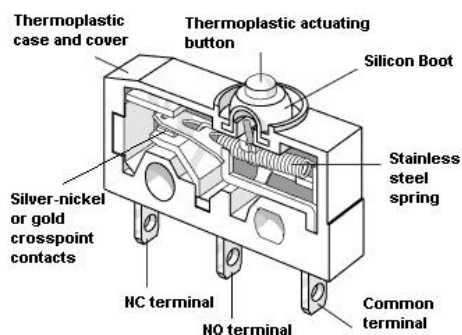


Subminiature Sealed Snap Action Switch

DC Series



Features

- Enclosed switch complying with IP 6K7
- Silicon-free version available
- Models available for operating temperatures up to 120°C
- Rated for currents up to 10.1 amps at 250VAC
- Range of auxiliary actuators available (can also be retrofitted)
- Various contact materials available, depending on application
- Mechanical life: min. 1 x10⁶ operations
- Wide variety of terminal options

Electrical Ratings and Operating Life

Switch Series	According to EN61058-1		According to UL1054	
	Nominal Load	Operation cycles	Nominal Load	Operation cycles
DC1	6A, 250V~	10,000	5A 125/250 VAC, 1A 48VDC	6,000
DC2	10(1.5)A, 250 V~	10,000	10.1A 125/250 VAC 1/4HP 125VAC	6,000
DC3	0.1A 250 V~	50,000	0.1A 125/250 VAC	100,000

Technical Specifications

Technical Specifications		Material Specifications	
Temperature Rating:	-40° to +85°C / +120°C (without wire leads) -40° to +85°C / +105°C (with wire leads)	Case:	PET / PBT
Degree of Protection:	IP67	Actuator button:	PBT (UL 94 V-0) 120°C POM (UL 94 HB) 85°C
		Contacts:	AuAgPt (Crosspoint), AgNi,
RoHS Compliant:	Yes	Terminals:	CuZn (silver plated)
UL File Number:	E314201	Auxiliary actuator:	Stainless steel or plastic



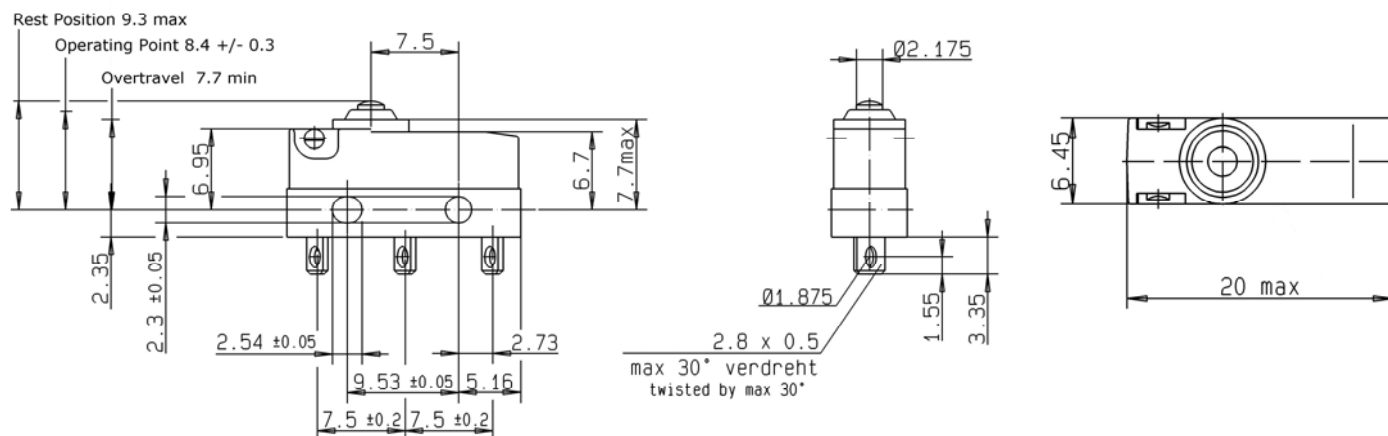
(depending on model)

Specifications subject to change

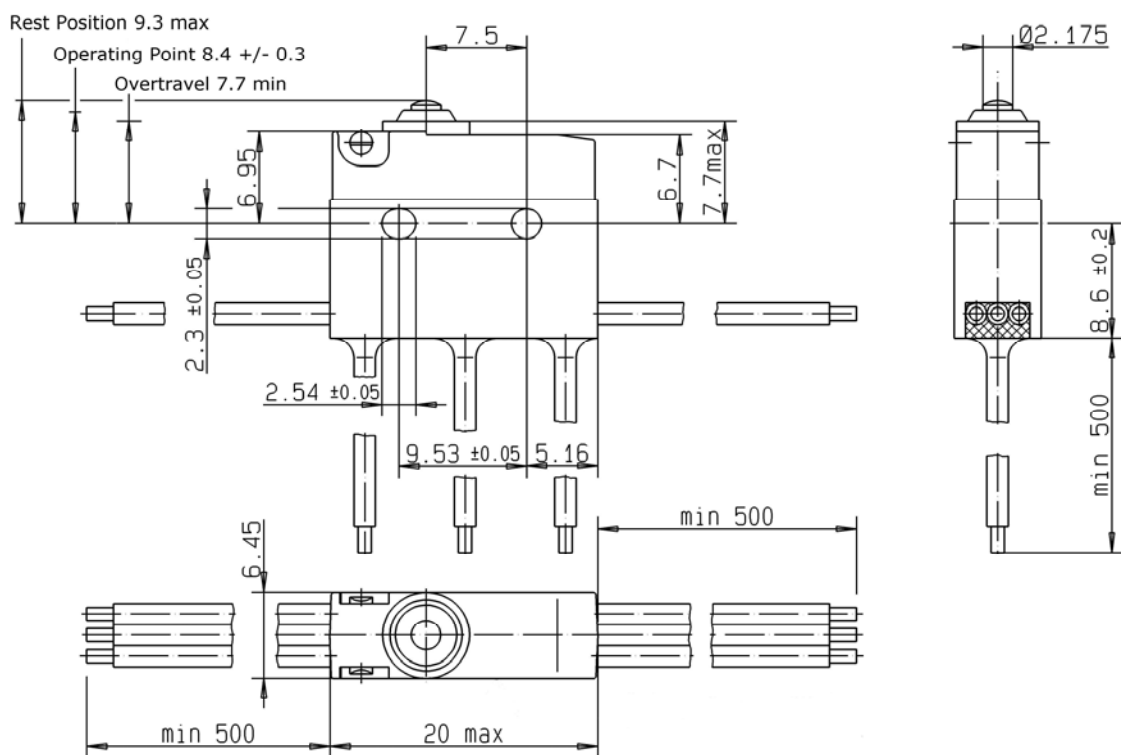
Subminiature Sealed Snap Action Switch

DC Series

Dimensions - millimeter



Models with Wire Leads



Wire Colors: Common: Black

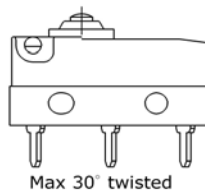
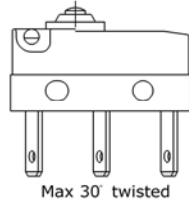
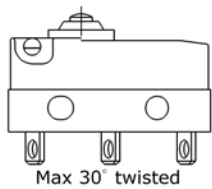
Normally Open: Blue

Normally Closed: Grey

Subminiature Sealed Snap Action Switch

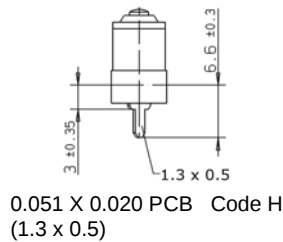
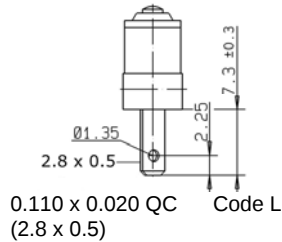
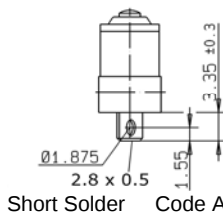
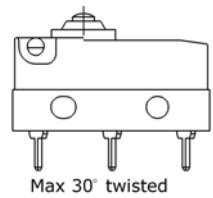
DC Series

Terminal Options inches (mm)



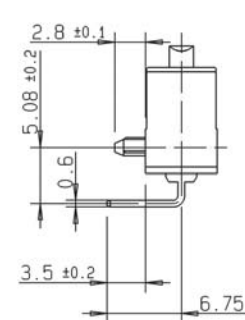
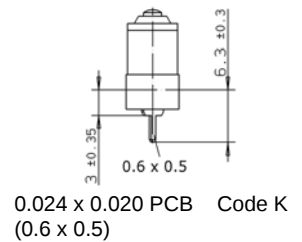
$$\begin{array}{c} \text{Ø } 0.065 \pm 0.002 \\ (0.165 \pm 0.05) \end{array}$$

Hole pattern for .051" (1.3)
pcb

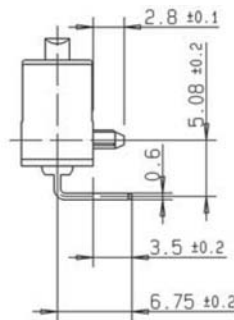


$$\begin{array}{c} \text{Ø } 0.053 \pm 0.002 \\ (1.35 \pm 0.05) \end{array}$$

Hole pattern for .024" (0.6)
pcb

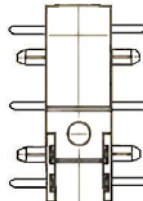


Left side pcb with
location pins



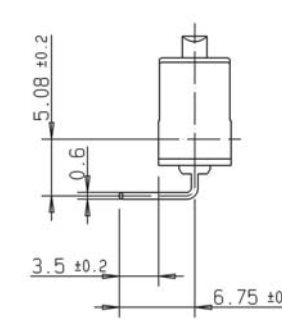
Right side pcb with
location pins

L
E
F
T

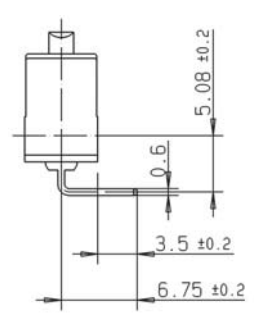


Top Down View of Lateral
Terminals

R
I
G
H
T



Left side pcb terminals



Right side pcb terminals

$$\begin{array}{c} \text{Ø } 0.087 \pm 0.002 \\ (2.2 \pm 0.05) \\ \text{Ø } 0.053 \pm 0.002 \\ (1.35 \pm 0.05) \end{array}$$

Hole pattern for pcb terminals with location pins

$$\begin{array}{c} \text{Ø } 0.094 \pm 0.003 \\ (2.385 \pm 0.065) \\ \text{Ø } 0.080 \pm 0.002 \\ (2.05 \pm 0.05) \end{array}$$

(Post Dimensions)

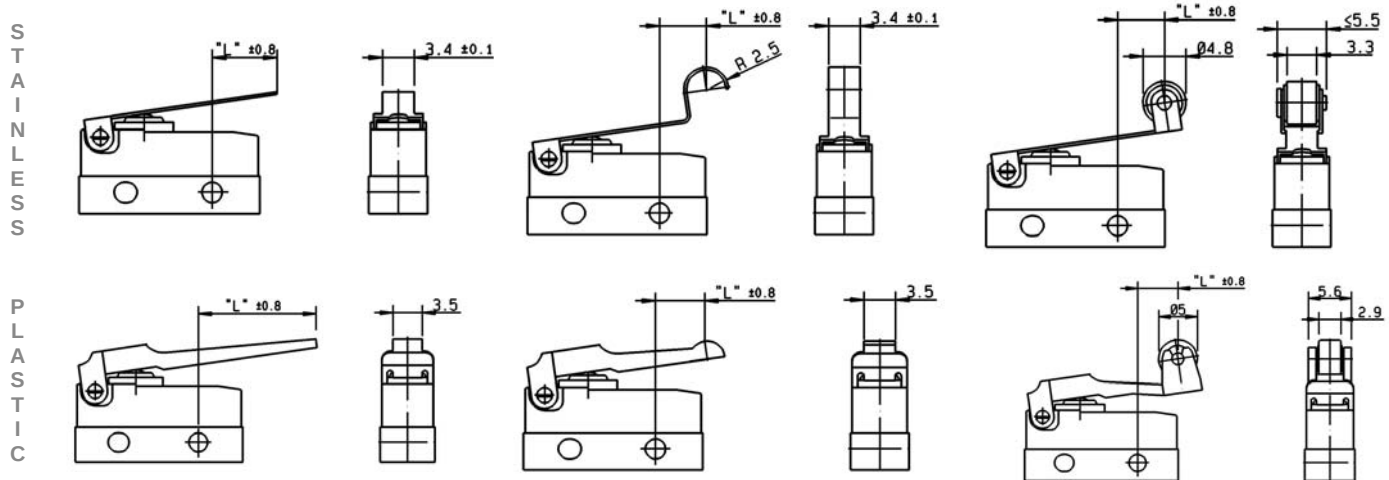
$$\begin{array}{c} \text{Ø } 0.053 \pm 0.002 \\ (1.35 \pm 0.05) \end{array}$$

Hole pattern for pcb terminals without location pins

Subminiature Sealed Snap Action Switch

DC Series

Auxiliary Actuators Inches (mm)



Auxiliary Actuator Options

Actuator Code	Material	Shape	Actuation Length (mm)	Actuator Part number	Actuator Code	Material	Shape	Actuation Length (mm)	Actuator Part number
-LB	Stainless	Straight	4.8	06141232	-RB	Stainless	Roller	2.5	07140260
-LC	Stainless	Straight	7.0	06141233	-RC	Stainless	Roller	4.7	07140261
-LD	Stainless	Straight	42.0	06141234	-RD	Stainless	Roller	39.7	07140262
-SB	Stainless	Simulated Roller	2.5	06141237	-WB	Plastic	Straight	7.0	06141247
-SC	Stainless	Simulated Roller	4.7	06141238	-WC	Plastic	Straight	14.0	06141253
-SD	Stainless	Simulated Roller	39.7	06141239	-ZB	Plastic	Roller	5.2	07140299
					-VB	Plastic	Simulated Roller	5.6	06141249

Commonly Stocked Distributor Items / Preferred Part Numbers

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)
DC1CA1AA	6A 260V ~	5A 125/250 VAC; 1A 48 VDC	Short Solder	200	0.039 / 1.0	0.330 +/- 0.012 8.4 +/- 0.3	0.024 / 0.6	.004 / 0.1	---
DC1CA1LB	6A 260V ~	5A 125/250 VAC; 1A 48 VDC	Short Solder	80	0.177 / 4.5	0.421 +/- 0.5 10.7 +/- 1.3	0.06 / 1.5	.02 / 0.5	0.189 (4.8)
DC1CA1RB	6A 260V ~	5A 125/250 VAC; 1A 48 VDC	Short Solder	90	0.177 / 4.5	0.622 +/- 0.050 15.8 +/- 1.3	0.06 / 1.5	.02 / 0.5	0.088 (2.5)
DC2CA1AA	10(1.5A) 250V ~	10.1A 125/250VAC; 1/4HP 125VAC	Short Solder	340	0.039 / 1.0	0.330 +/- 0.012 8.4 +/- 0.3	0.024 / 0.6	.004 / 0.1	---
DC2CA1LB	10(1.5A) 250V ~	10.1A 125/250VAC; 1/4HP 125VAC	Short Solder	150	0.197 / 5.0	0.421 +/- 0.50 10.7 +/- 1.3	0.06 / 1.5	0.03 / 0.7	0.189 (4.8)
DC2CA1RB	10(1.5A) 250V ~	10.1A 125/250VAC; 1/4HP 125VAC	Short Solder	160	0.197 / 5.0	0.622 +/- 0.050 15.8 +/- 1.3	0.06 / 1.5	0.03 / 0.7	0.088 (2.5)
DC3CA1AA	0.1A 250V ~	0.1A 125/250VAC, 0.1A 30VDC	Short Solder	200	0.039 / 1.0	0.330 +/- 0.012 8.4 +/- 0.3	0.024 / 0.6	.004 / 0.1	---
DC3CA1LB	0.1A 250V ~	0.1A 125/250VAC, 0.1A 30VDC	Short Solder	80	0.177 / 4.5	0.421 +/- 0.50 10.7 +/- 1.3	0.06 / 1.5	0.03 / 0.7	0.189 (4.8)
DC3CM5RB	0.1A 250V ~	0.1A 125/250VAC, 0.1A 30VDC	20 awg wire	90	0.180 / 4.6	0.600 +/- 0.030 15.24 +/- 0.8	0.06 / 1.5	.02 / 0.5	0.088 (2.5)

** Additional part numbers available. Contact factory for minimums and availability

Subminiature Sealed Snap Action Switch

DC Series

Ordering Information

DC	3	C																		
Series																				
		<table><tr><th>Code</th><th>Contact Configuration</th></tr><tr><td></td><td>+85C Operating Temperature</td></tr><tr><td>E</td><td>SPST NO</td></tr><tr><td>F</td><td>SPST NC</td></tr><tr><td>G</td><td>SPDT</td></tr><tr><td></td><td>+120C Operating Temperature</td></tr><tr><td>A</td><td>SPST NO</td></tr><tr><td>B</td><td>SPST NC</td></tr><tr><td>C</td><td>SPDT</td></tr></table>	Code	Contact Configuration		+85C Operating Temperature	E	SPST NO	F	SPST NC	G	SPDT		+120C Operating Temperature	A	SPST NO	B	SPST NC	C	SPDT
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		<table><tr><th>Code</th><th>EN 61058 Rating</th><th>UL1054 Rating</th></tr><tr><td>1</td><td>6A 250VAC</td><td>5A 125/250VAC, 1A 48VDC</td></tr><tr><td>2</td><td>10(1.5)A 250VAC</td><td>10.1A 125/250VAC, 1/4HP 125VAC</td></tr><tr><td>3</td><td>0.1A 250VAC</td><td>0.1A 125/250VAC 0.1A 30VDC</td></tr></table>	Code	EN 61058 Rating	UL1054 Rating	1	6A 250VAC	5A 125/250VAC, 1A 48VDC	2	10(1.5)A 250VAC	10.1A 125/250VAC, 1/4HP 125VAC	3	0.1A 250VAC	0.1A 125/250VAC 0.1A 30VDC						
Code	EN 61058 Rating	UL1054 Rating																		
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3	0.1A 250VAC	0.1A 125/250VAC 0.1A 30VDC																		

Notes:

Wire leads 500 mm min. (approximately 20" long)

1. Only available with terminal configuration 1
2. +85C rated only
3. Only available with DC1 and DC3
4. Wire versions only rated to +105C
5. Only available with terminal configuration 3 or 4

A																																											
	<table><tr><th>Code</th><th>Terminal Type</th><th>Notes</th></tr><tr><td>A</td><td>Short Solder</td><td>1</td></tr><tr><td>B</td><td>0.02" (0.5)² Leads (No UL)</td><td>4, 8</td></tr><tr><td>C</td><td>0.03" (0.75)² Leads (No UL)</td><td>4</td></tr><tr><td>H</td><td>0.05 x 0.02 (1.2 x 0.5) PCB</td><td>1</td></tr><tr><td>K</td><td>0.02 x 0.02 (0.5 x 0.5) PCB</td><td>1, 6</td></tr><tr><td>L</td><td>0.11 x 0.02 (2.8 x 0.5) QC</td><td>1</td></tr><tr><td>N</td><td>Without Leads (Type B)</td><td>5</td></tr><tr><td>P</td><td>Without Leads (Type A)</td><td>5</td></tr><tr><td>Q</td><td>Without Leads (No Cut Out)</td><td>8</td></tr><tr><td></td><td colspan="2">Non-European Versions</td></tr><tr><td>D</td><td>Leads 18 awg (UL approved)</td><td>4, 7, 9</td></tr><tr><td>E</td><td>Leads 16 awg (UL approved)</td><td>4</td></tr><tr><td>M</td><td>Leads 20 awg (UL approved)</td><td>3, 4</td></tr></table>	Code	Terminal Type	Notes	A	Short Solder	1	B	0.02" (0.5) ² Leads (No UL)	4, 8	C	0.03" (0.75) ² Leads (No UL)	4	H	0.05 x 0.02 (1.2 x 0.5) PCB	1	K	0.02 x 0.02 (0.5 x 0.5) PCB	1, 6	L	0.11 x 0.02 (2.8 x 0.5) QC	1	N	Without Leads (Type B)	5	P	Without Leads (Type A)	5	Q	Without Leads (No Cut Out)	8		Non-European Versions		D	Leads 18 awg (UL approved)	4, 7, 9	E	Leads 16 awg (UL approved)	4	M	Leads 20 awg (UL approved)	3, 4
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6. Only available with terminal configuration 1, 6, 7, 8, 9
7. Only available with terminal configuration 5
8. Only available with DC3
9. Not available with DC2

1	AA																
	<table><thead><tr><th>Code</th><th>Actuator Type</th></tr></thead><tbody><tr><td>AA</td><td>Spherical Head button</td></tr><tr><td>LB</td><td>Short straight lever 0.189 (4.8)</td></tr><tr><td>RB</td><td>Short roller lever 0.098 (2.5)</td></tr><tr><td>RC</td><td>Roller lever 0.185 (4.7)</td></tr></tbody></table>	Code	Actuator Type	AA	Spherical Head button	LB	Short straight lever 0.189 (4.8)	RB	Short roller lever 0.098 (2.5)	RC	Roller lever 0.185 (4.7)						
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	* For additional actuator options contact factory																
	** Do not use plastic levers with 120°C rated switches																
	<table><tbody><tr><td>1</td><td>30° Twisted</td></tr><tr><td>3</td><td>Leads on Actuator Side</td></tr><tr><td>4</td><td>Leads on Opposite Side from Actuator</td></tr><tr><td>5</td><td>Leads Attached to Underside</td></tr><tr><td>6</td><td>PCB Terminals Right Hand Side</td></tr><tr><td>7</td><td>PCB Terminals Left Hand Side</td></tr><tr><td>8</td><td>PCB Terminals Right Hand Side with Location Pins</td></tr><tr><td>9</td><td>PCB Terminals Left Hand Side with Location Pins</td></tr></tbody></table>	1	30° Twisted	3	Leads on Actuator Side	4	Leads on Opposite Side from Actuator	5	Leads Attached to Underside	6	PCB Terminals Right Hand Side	7	PCB Terminals Left Hand Side	8	PCB Terminals Right Hand Side with Location Pins	9	PCB Terminals Left Hand Side with Location Pins
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Contact

Call, fax or visit our Website for more information.

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Email: cep_sales@zf.com
Fax: 262.942.6566

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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Last Updated: 071211

