

General specifications

Layout



Components

Material

- Case : polyester UL 94 VO
- Button : glass-filled polyamide
- Contacts : AgNi, gold-plated AgNi (dual-current)
- Terminals : copper-nickel

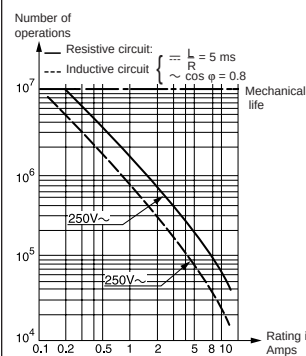
Actuators

- flat : stainless steel
- roller : stainless steel with polyamide roller

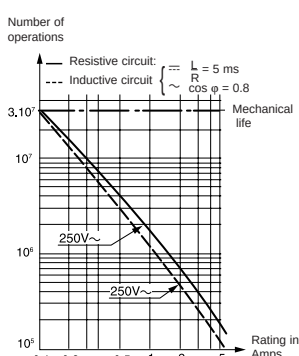
Approvals: NF - UL - cUL

Operating curve

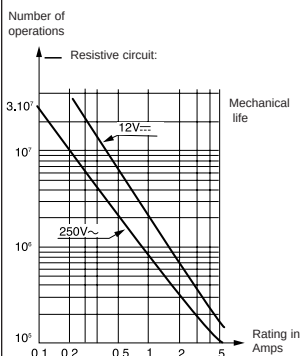
For type 83 170 0



For type 83 170 4



For type 83 170 9



Model 83 170 9 is designed to operate equally well on dual-current (1 mA 4 V minimum) or medium-current (5 A maximum) circuits. However, a given product should only be used to switch one type of circuit during its working life.

Types

Part numbers for standard products (no lever) terminal type	1
	2
	3

Features

Electrical characteristics

Current rating at 250 V	Nominal	A
	Thermal	A

Mechanical characteristics

Operating force - max.	N (oz.)
Release force - min.	N (oz.)
Total travel force - max.	N (oz.)
Permitted overtravel force - max.	N (oz.)
Maximum rest position	mm (in.)
Tripping point	mm (in.)
Differential travel	mm (in.)
Overtravel - min.	mm (in.)
Ambient operating temperature	°C
Mechanical endurance	Operations
Contact gap	mm (in.)
Weight	g (oz.)

Contact type

C (Form C) SPDT

B (Form B) SPNC not available in PC terminals

A (Form A) SPNO not available in PC terminals

Connections

Actuators and mounting positions

Part numbers for standard actuators

Actuators – Length	mm (in.)
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Mounting positions

Coefficient	
Tripping point	mm (in.)

Mounting positions

Except where otherwise indicated, actuators are supplied unmounted. For factory mounting, specify mounting position L or R.

- **To calculate force** : take the force quoted for the switch and divide by the coefficient given in the table.
- **To calculate travel** : take the travel quoted for the switch and multiply by the same coefficient.

Mounting accessories for PCB mounting: 5 / 6 / 7 / 8

See page 3/9.

Other information

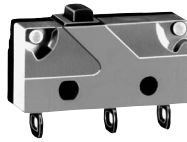
For other forces, actuators, connections and temperatures, please consult us.

Normally stocked items

Catalog products produced to order

Products and specifications subject to change without notice.

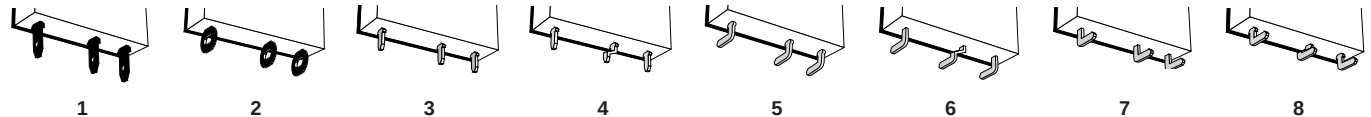
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**1**

83170.0	83170.4	83170.9	83170.4 SP 4967	83170.4	83170.9
831700C1.0	831704C1.0	831709C1.0	831704C2.MBSP	831704C1.MB	831709C1.MB
831700C2.0	831704C2.0	831709C2.0	831704C3.MBSP	831704C2.MB	831709C2.MB
831700C3.0	831704C3.0	831709C3.0	831704C1.MBSP	831704C3.MB	831709C3.MB
High current	Standard	Low current	High force	Standard	Low current
10 12.5	5 6	0.1	5 6	5 6	0.1
1.5 (5.3) 0.3 (1) 1.8 (6.3) 10 (35.3) 9.2 (.36) 8.4 ^{+0.3} (.33 ^{+0.1}) 0.15 (.006) 0.5 (.02) -20 to130 (-4 to 266) 10 ⁷ 0.4 (.016) 1.7 (.06)	0.6 (2.2) 0.1 (.04) 1 (3.5) 10 (35.3) 9.2 (.36) 8.4 ^{+0.3} (.33 ^{+0.1}) 0.15 (.006) 0.5 (.02) -20 to130 (-4 to 266) 3.10 ⁷ 0.4 (.016) 1.7 (.06)	0.6 (2.2) 0.1 (.04) 1 (3.5) 10 (35.3) 9.2 (.36) 8.4 ^{+0.3} (.33 ^{+0.1}) 0.15 (.006) 0.5 (.02) -20 to130 (-4 to 266) 3.10 ⁷ 0.4 (.016) 1.7 (.06)	1.5 (5.3) 0.3 (1) 1.8 (6.3) 10 (35.3) 10.8 (.425) 9.9 ^{+0.3} (.39 ^{+0.1}) 0.15 (.006) 0.5 (.02) -20 to130 (-4 to 266) 10 ⁶ 0.4 (.016) 1.7 (.06)	0.6 (2.2) 0.1 (.04) 1 (3.5) 10 (35.3) 10.8 (.425) 9.9 ^{+0.3} (.39 ^{+0.1}) 0.15 (.006) 0.5 (.02) -20 to130 (-4 to 266) 10 ⁶ 0.4 (.016) 1.7 (.06)	0.6 (2.2) 0.1 (.04) 1 (3.5) 10 (35.3) 10.8 (.425) 9.9 ^{+0.3} (.39 ^{+0.1}) 0.15 (.006) 0.5 (.02) -20 to130 (-4 to 266) 10 ⁶ 0.4 (.016) 1.7 (.06)

2

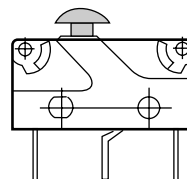
C	C	C	C	C	C
B	B	B	B	B	B
A	A	A	A	A	A

3**4**

A 79 253 327	B 79 253 326	C 79 253 328	E 79 218 454	F 79 253 329
Flat 170A R18.3 (.72)	Flat 170A R24 (.94)	Flat 170A R41 (1.61)	Roller 170E R20 (.79)	Dummy roller 170F R19.5 (.77)
L 3 10.4 ^{+1.2} (.41 ^{+0.05})	L 4 11.1 ^{+1.2} (.44 ^{+0.05})	L 7 13.2 ^{+2.5} (.52 ⁺¹)	L 3 15.4 ^{+1.2} (.61 ^{+0.05})	L 3 13 ^{+1.2} (.51 ^{+0.05})
R 1.5 9.2 ^{+0.6} (.36 ^{+0.24})	R 2 9.6 ^{+0.6} (.38 ^{+0.24})	R 3.5 10.7 ^{+1.2} (.42 ^{+0.05})	R 1.5 14.5 ^{+0.6} (.57 ^{+0.24})	R 1.5 12 ^{+0.6} (.47 ^{+0.24})

D 79 218 491	L 79 218 493
Screw 170D R20 (.79)	Transverse roller 170L R20 (.79)
Characteristics available upon request.	

MB



Ø No
Actuator

5

To order please specify :

1 Switch Type	2 Contact Type	3 Connection	4 Actuators	5 Actuator Position
831700 831704 831709	A B C	1 5 2 6 3 7 4 8	A B C D Ø	L - Left (Standard) R - Right
To order actuators separately, use the 8 digit P/N		Example P/N is 831700 SPDT solder terminals "C" actuator mounted on the left.		

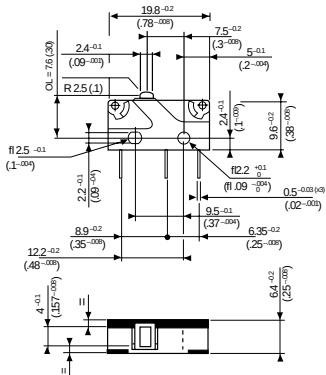
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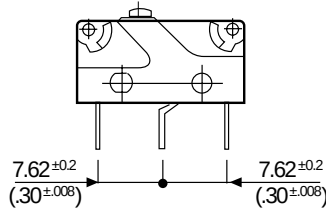
Subminiature Switches DIN 41635 B

Dimensions

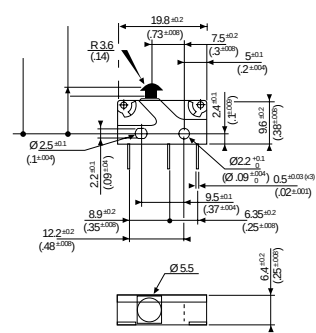
83 170 Asymmetric



83 170 Symmetric



83 170 with MB Button

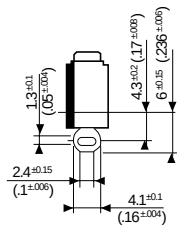


Mounting by M2 screws
Torque : 2 cm daN

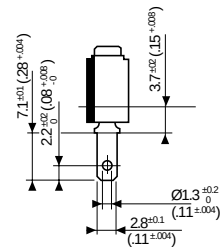
mm (in)

Connections

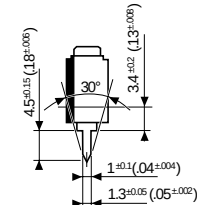
2 Solder



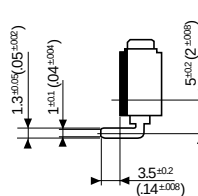
1 .11x.02 Quick Connects



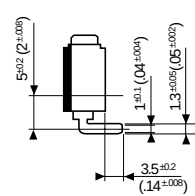
3-4 Straight PCB



5-6 Side Output PCB Rear



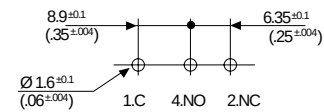
7-8 Side Output PCB Front



Printed circuit board mounting

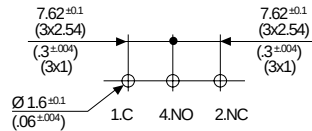
Asymmetric

3 5 7



Symmetric

4 6 8



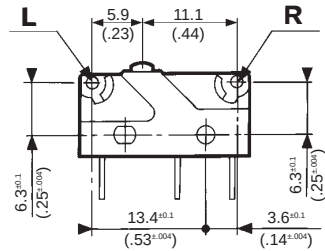
mm (in)

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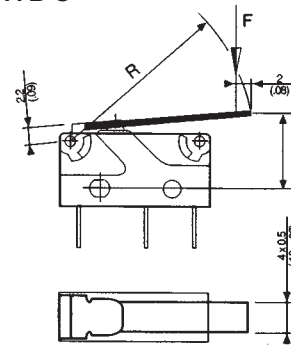
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Actuators

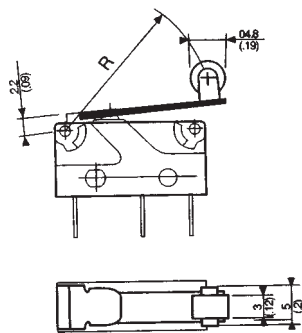
Actuator mounting positions



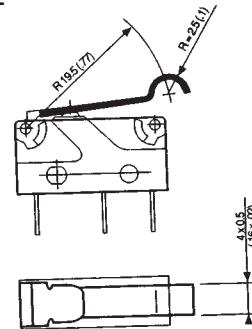
A B C



E



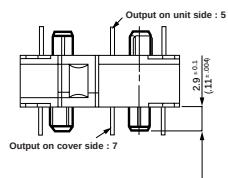
F



mm (in.)

Mounting accessories

Mounting pins



mm (in.)

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