

General specifications

Layout



83 169

Components

Material

- Case : polyester UL 94 VO
- Contacts : nickel silver gold alloy (low current)
- Membrane : Fluoro - silicone

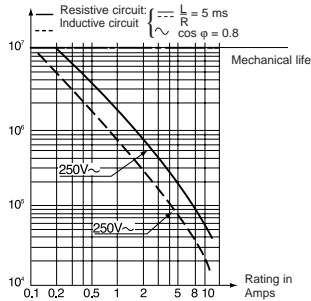
Actuators

- stainless steel
- rollers : polyamide
- Plunger : stainless steel

Operating curve

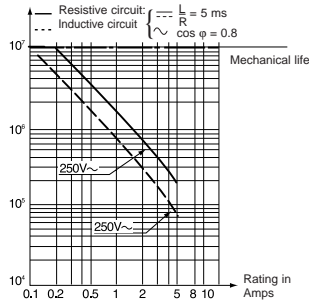
83 169 0

Number of operations



83 169 4

Number of operations



Operating characteristics

83 169 8 and 83 169 9 low current

Intended for use from 1 to 100 mA at 4 to 30 V DC.

Under these conditions, electrical life exceeds mechanical life.

Degree of protection IP 67

Approvals: UL, cUL (CSA Equivalent)

Types

Features

Electrical characteristics

	Nominal	A
Current rating at 125-250 V		

Mechanical characteristics

Operating force - max.	N (oz)
Release force - min.	N (oz)
Maximum overtravel force	N (oz)
Overtravel max. - force	N (oz)
Maximum rest position	mm (in)
Tripping point	mm (in)
Movement differential	mm (in)
Overtravel - min.	mm (in)
Temperature	°C (F°)
Endurance	Operations
Contact gap	mm (in)
Weight	g (oz)

Contact Type

C (Form C) SPDT

Connections

Flexible leads $\varnothing 3 \times 1 \text{ mm}^2$ long 0.50 m

Lead position - right

Lead position - left

3 lead cable - $3 \times 0.75 \text{ mm}^2$ length 0.50 m, left output only

Actuators and mounting positions-user or factory mounted

Part numbers for standard actuators

P

Actuator-Length mm (in.) ** Flat **139 AX R29.7 (1.17)**



Mounting positions

D

Operating force - max.	N (oz)	2.5 (8.8)
Release force - min.	N (oz)	0.4 (1.4)
Movement differential	mm (in)	1.2-0.5 (.047-.02)

Part numbers for standard actuators

Mounting positions	N (oz)
Operating force - max.	N (oz)
Release force - min.	mm (in)
Movement differential	
Unless indicated, flat actuators and roller actuators are delivered unmounted	
** Factory Mounted Only	

Note : When mounting actuators a light greasing of the switch push-button is recommended.

Other information

For other forces, actuators, connections and temperatures, please contact factory.

Normally stocked items

Catalog products produced to order

Products and specifications subject to change without notice.

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1

83 169 0 **83 169 4** **83 169 8** **83 169 9**

Standard	Reduced differential movement	Low current	Low current, reduced differential movement
10	5	0.1	0.1
4 (14.1)	4 (14.1)	4 (14.1)	4 (14.1)
1 (3.5)	1 (3.5)	1 (3.5)	1 (3.5)
8 (28.2)	8 (28.2)	8 (28.2)	8 (28.2)
20 (70.5)	20 (70.5)	20 (70.5)	20 (70.5)
15.9 (.63)	15.9 (.63)	15.9 (.63)	15.9 (.63)
14.7 ^{+0.5} (.58 ^{+0.02})	14.7 ^{+0.5} (.58 ^{+0.02})	14.7 ^{+0.5} (.58 ^{+0.02})	14.7 ^{+0.5} (.58 ^{+0.02})
0.35 (.014)	0.07 (.003)	0.35 (.014)	0.07 (.003)
1 (.04)	0.4 (.016)	1 (.04)	0.4 (.016)
-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)	-20 to 85 (-4 to 185)
5 x 10 ⁶	5 x 10 ⁶	5 x 10 ⁶	5 x 10 ⁶
0.4 (.016)	0.4 (.016)	0.4 (.016)	0.4 (.016)
30 (1.06)	30 (1.06)	30 (1.06)	30 (1.06)

2

C **C** **C** **C**

3

R	R	R	R
L	L	L	L
C ⁽¹⁾	C	C	C

(1) 83 169 0 Cable limits current to 8 Amps

4

R **A 79 215 740** **B 70 507 524** **E 79 215 742** **G 70 507 529**

**Roller 139 EX R28.7 (1.13) Flat 161 A R14.2 (.56) - R25.4 (1) Roller 161 E R13.6 (.54) - R24.1 (.95)



D
2.5 (8.8)
0.4 (1.4)
1.2-0.5 (.047-.02)

A	B	A	B	C
2.5 (8.8)	4.2 (14.8)	1.4 (4.9)	2.5 (8.8)	3.5 (12.3)
0.5 (1.8)	1 (3.5)	0.25 (.88)	0.5 (1.8)	0.6 (2.1)
0.8 (.032)	0.4 (.016)	1.6 (.063)	0.8 (.032)	0.6 (.024)

A	B
2.5 (8.8)	4.2 (14.8)
0.5 (1.8)	1 (3.5)
0.8 (.032)	0.4 (.016)

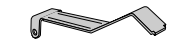
A	B	C
1.4 (4.9)	2.5 (8.8)	3.5 (12.3)
0.25 (.88)	0.5 (1.8)	0.6 (2.1)
1.6 (.063)	0.8 (.032)	0.6 (.024)

F 79 218 581

H 79 218 651

Flat 161 F R22.3 (.88)

Dummy roller 161 G R21.8 (.86)



A	B
1.5 (5.3)	2.6 (9.2)
0.25 (.9)	0.5 (1.8)
16 (.63)	0.8 (.032)

A	B
1.5 (5.3)	2.6 (9.2)
0.25 (.9)	0.5 (1.8)
16 (.63)	0.8 (.032)

Ø
No Actuator

For more actuators see 83161

5

To order, please specify :

Example : 831690 C R .5 * Ø _

1 Switch Type	2 Contact Type	3 Connections	4 Length of Leads	5 Actuator	6 Actuator Position
831690 831694 831698 831699	C	R L C	.5 - 1/2 meter (std) 1 - 1 meter 2 - 2 meter	Ø A B H	E F P R

Example switch is: 831690, SPDT, leads exit right, .5 meter leads, with no actuator. To order actuators separately, use the 8 digit P/N.

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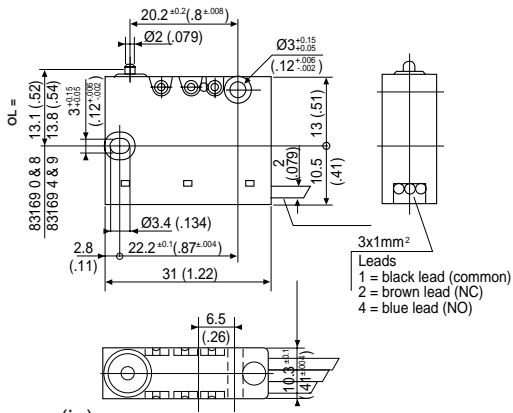
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Sealed Miniature Switches

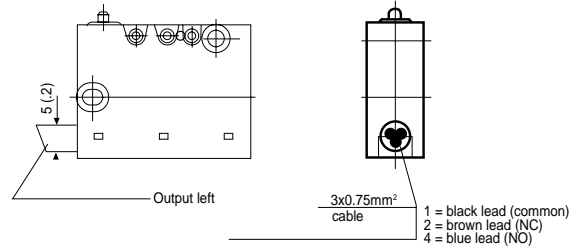
Dimensions

Output wires



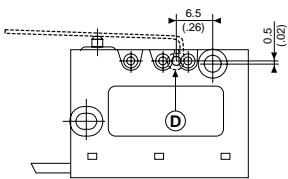
mm (in)

Output cable

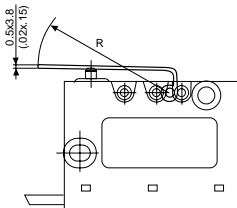


Actuators

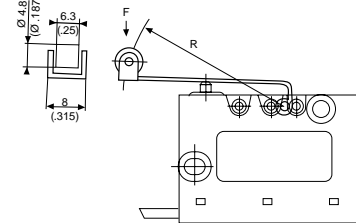
Mounting position for factory mounted actuators



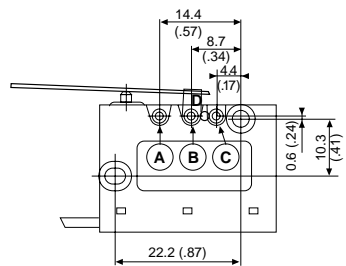
P



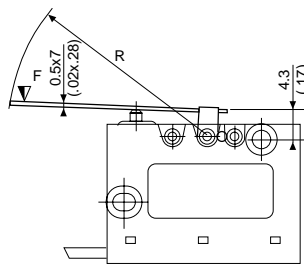
R



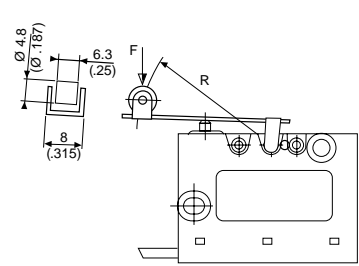
Mounting position for factory or customer mounted actuators



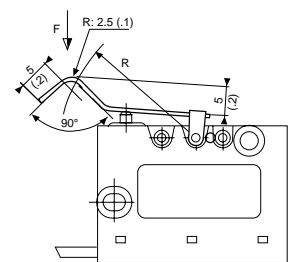
A - B



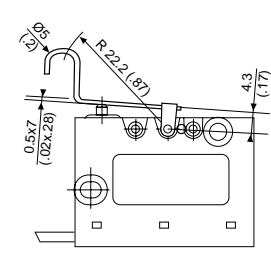
E - G



F



H



mm (in)

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