

# Sealed

## → V3 Sealed



- IP 67 protection
- Nominal ratings 0.1 A to 10 A/250 VAC
- Minimum rating 1 mA/4 VDC
- Reduced differential travel
- Choice of actuators



### Main specifications

		Standard 83 169 0	Reduced differential travel 83 169 4	Dual-current 83 169 8	Dual-current reduced differential travel 83 169 9
<b>Function</b>	<b>Connections</b>				
I (changeover)	Lead output on right	83 169 002	•	•	•
I (changeover)	Lead output on left or cable output	•	•	•	•
<b>Electrical characteristics</b>					
Rating nominal / 250 V AC (A)		8	5	0.1	0.1
Rating thermal / 250 V AC (A)		10	6	6	6
<b>Mechanical characteristics</b>					
Maximum operating force (N)		4.5	4.5	4.5	4.5
Min. Release force (N)		1	1	1	1
Maximum total travel force (N)		8	8	8	8
Max. permitted overtravel force (N)		20	20	20	20
Rest position max. (mm)		15.9	15.9	15.9	15.9
Tripping point (mm)		14.7 <sup>+0.5</sup>	14.7 <sup>0.5</sup>	14.7 <sup>+0.5</sup>	14.7 <sup>+0.5</sup>
Maximum differential travel (mm)		0.35	0.07	0.35	0.07
Min. overtravel (mm)		1	0.4	1	0.4
Ambient operating temperature (°C)		-20 → +85 °C	-20 → +85 °C	-20 → +85 °C	-20 → +85 °C
Mechanical life (operations)		5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>
Contact gap (mm)		0.4	0.4	0.4	0.4
Weight (g)		30	30	30	30
<b>Connections</b>					
Wire output on right		D	D	D	D
Wire output on left		G	G	G	G
Cable output		C	C	C	C
Leads connection		Flexible PVC leads 1 mm <sup>2</sup> length 0.50 m, Ø ext. 2 mm	Flexible PVC leads 1 mm <sup>2</sup> length 0.50 m, Ø ext. 2 mm	Flexible PVC leads 1 mm <sup>2</sup> length 0.50 m, Ø ext. 2 mm	Flexible PVC leads 1 mm <sup>2</sup> length 0.50 m, Ø ext. 2 mm
Cable connection		PVC 3 x 0.75 mm <sup>2</sup> length 0.50 m, Ø ext. 5 mm	PVC 3 x 0.75 mm <sup>2</sup> length 0.50 m, Ø ext. 5 mm	PVC 3 x 0.75 mm <sup>2</sup> length 0.50 m, Ø ext. 5 mm	PVC 3 x 0.75 mm <sup>2</sup> length 0.50 m, Ø ext. 5 mm

### Additional specifications

#### Components

##### Material

- Case : polyester UL 94 VO
- Contacts : silver/nickel - gold alloy (dual-current)
- Membrane : fluoro-silicon

##### Levers

- stainless steel
- Roller : polyamide
- Plunger : stainless steel

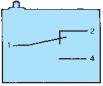
### Product adaptations



- Special levers
- Special leads, cables, cable harnesses
- Approval : UL - cUL

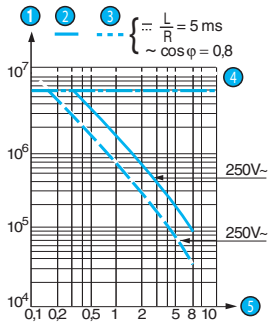
# Principles

## Single break changeover switch

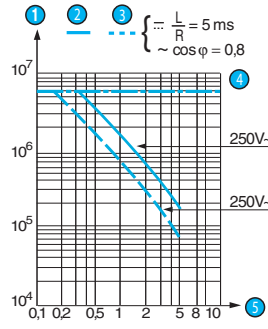


# Curves

## Operating curve for type 83 169 0



## Operating curve for type 83 169 4



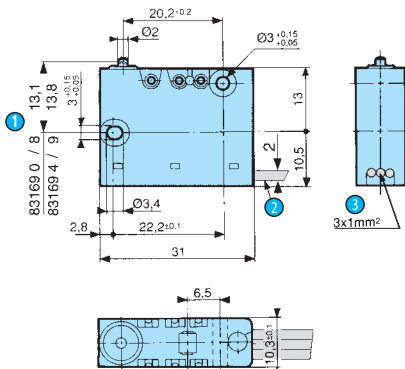
## 83 169 8 and 83 169 9 dual-current

These models are 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.

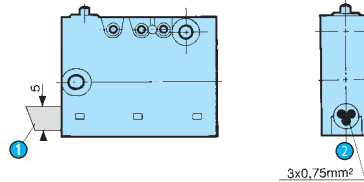
# Dimensions

## → Product

### Lead output

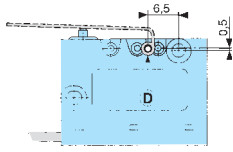


### Cable output

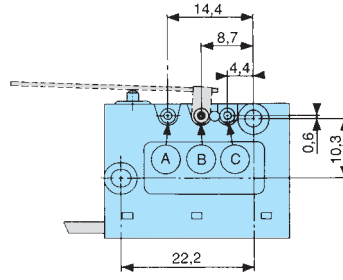


## → Actuator mounting positions

Levers type 139

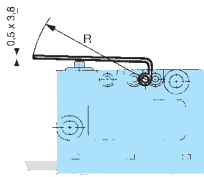


Levers type 161

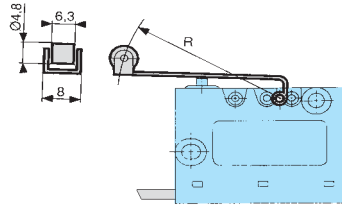


## → Actuators

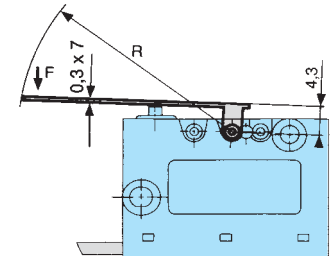
139 AX



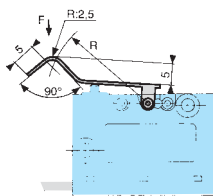
139 EX



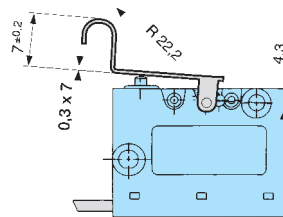
161 A



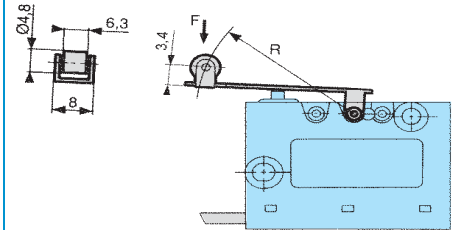
161 F




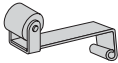


161 G





161 E



## Actuators and fixing positions

Part numbers for standard actuators		79 215 740		79 507 524		79 215 742		79 507 529						
Actuators	Flat <b>139 AX</b> F29.7 mm**	Roller <b>139 EX</b> F28.7 mm**	Flat <b>161A</b> R14.2* - F25.4 mm*			Roller <b>161E</b> R13.6* - F24.1 mm*								
														
Fixing position		D	D		A	B	A	B	C	A	B	C		
Operating force - max.	N	2.5	2.5		2.5	4.2	1.4	2.5	3.5	2.5	4.5	1.4	2.5	3.5
Release force - min.	N	0.4	0.4		0.5	1	0.25	0.5	0.6	0.5	1	0.25	0.5	0.6
Differential travel	mm	1.2 - 0.5	1.2 - 0.5		0.8	0.4	1.6	0.8	0.6	0.8	0.4	1.6	0.8	0.6

Part numbers for standard actuators		70 507 328		79 218 651	
Actuators	Flat <b>161F</b> F22.3 mm*	Dummy roller <b>161 G*</b>			
					
Fixing position		A	B	A	B
Operating force - max.	N	1.5	2.6	1.5	2.6
Release force - min.	N	0.25	0.5	0.25	0.5
Differential travel	mm	16	0.8	16	0.8

Unless mentioned specifically, flat and roller levers are supplied unassembled.

\* For factory mounting, specify mounting position A, B or C.

\*\* Supplied factory fitted

**Note :** We recommend greasing the switch pushbutton lightly when fitting actuators.

## Other information

### Mounting - Operation

See basic technical concepts