

# Sealed

## → 83 139

- IP66/IP67 protection,
- Protection against hydrocarbons, detergents
- Double break switching
- Double insulated or Atex flameproof casing
- Choice of actuators



### Main specifications

		Standard 83 139 0	Low temperature 83 139 5	Double insulated 83 139 2	Flameproof 83 139 1
<b>Function</b>	<b>Connections</b>				
I (changeover)	Standard lead output	83 139 003	83 139 503	-	83 139 103
I (changeover)	Lead output on right/left	●	●	-	●
I (changeover)	Cable output	-	-	83 139 201	-
<b>Electrical characteristics</b>					
Rating nominal / 250 V AC (A)		6	6	6	6
Rating thermal / 250 V AC (A)		11	11	11	11
<b>Mechanical characteristics</b>					
Maximum operating force (N)		3	3	3	3
Min. Release force (N)		0.6	0.6	0.6	0.6
Maximum total travel force (N)		4	4	4	4
Max. permitted overtravel force (N)		10	10	10	10
Rest position max. (mm)		A= 8.8 B= 9.8	A=8.8 B=9.8	B=9.8	B = 9.8
Tripping point depending on position of fixing holes (mm)		A = 7.7 <sup>±0.4</sup> B = 8.7 <sup>±0.4</sup>	A=7.7 <sup>±0.4</sup> B=8.7 <sup>±0.4</sup>	B = 8.7 <sup>±0.4</sup>	B = 8.7 <sup>±0.4</sup>
Differential travel (mm)		0.35 ±0.1	0.35 ±0.1	0.35 ±0.1	0.35 ±0.1
Min. overtravel (mm)		0.25	0.25	0.25	0.25
Ambient operating temperature (°C)		0 → +85	-40 → +85	-40 → +85	-40 → +70
Mechanical life (operations)		10 <sup>7</sup>	5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>
Contact gap (mm)		0.3 x 2	0.3 x 2	0.3	0.3 x 2
Weight (g)		37	37	45	37
<b>Fixations</b>					
Fixings - 4 holes (standard)		A	A	-	-
Fixing - 2 holes		B	B	B	B
<b>Connections</b>					
Connection		4 flexible leads 0.75 mm <sup>2</sup> length 0.50 m Ø ext. 2 mm	4 flexible leads 0.75 mm <sup>2</sup> Ø ext. 2 mm	Cable 3 x 0.75 mm <sup>2</sup> length 0.50 m Ø ext. 5.2 mm	4 flexible leads 0.75 mm <sup>2</sup> length 0.50 mm Ø ext. 2 mm
Standard wire output		S	S	-	S
Wire output on right		D	D	-	D
Wire output on left		G	G	-	G

#### Comments

##### Components

##### Material

- Case : polyester UL94V0
- Contacts : silver
- Membrane : nitrile for 83 139 0 silicone for 83 139 1/2/5

##### Lever

- stainless steel
- Roller : polyamide

##### Characteristics specific to 83 139 1

- Conform to standards EN 60079-0 and 60079-1
- Conform to the European directive 2014/34/EU concerning potentially explosive atmospheres
- Classification / Product marking: II 2 G - Ex d IIC Gb
- CE Test Certificate type n° LCIE 02 ATEX 0034 U
- Notification number : LCIE 11 ATEX4001

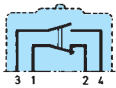
### Product adaptations



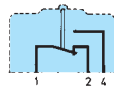
- Special levers
- Special leads, cables, cable harnesses
- Specific operating temperatures
- Two-pole version: 831398
- UL approval

**Principles**

**Double break changeover switch**  
Types 83 139 0 / 83 139 1 / 83 139 5

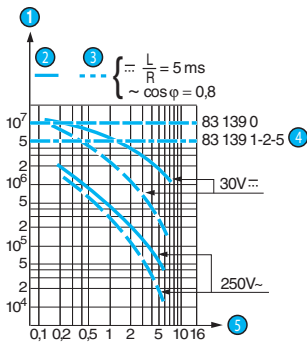


**Single break changeover switch**  
Type 83 139 2



**Curves**

Operating curve for types 83 139 0 / 1 / 2 / 5

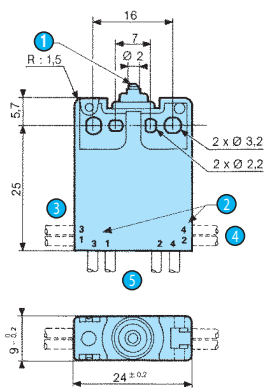


- ① Number of cycles
- ② Resistive circuit
- ③ Inductive circuit
- ④ Mechanical life limit
- ⑤ Current in Amps

**Dimensions**

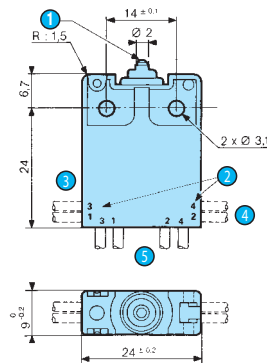
→ **Product**

**83 139 0 - 5**  
A fixing = 4 holes



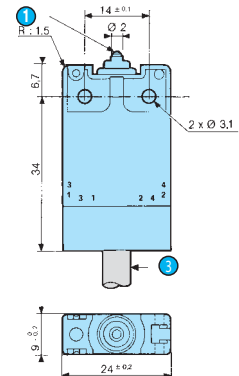
- ① R : 1.5 spherical
- ② Lead reference on casing
- ③ Lead output on left
- ④ Lead output on right
- ⑤ Standard lead output (black)
  - 1 = black lead
  - 2 = brown lead
  - 3 = grey lead
  - 4 = blue lead

**83 139 0 - 1 - 5**  
B fixing = 2 holes



- ① R : 1.5 spherical
- ② Lead reference on casing
- ③ Lead output on left
- ④ Lead output on right
- ⑤ Standard lead output (black)
  - 1 = black lead
  - 2 = brown lead
  - 3 = grey lead
  - 4 = blue lead

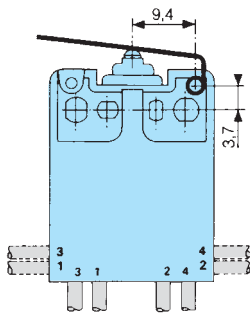
**83 139 2**  
B fixing = 2 holes



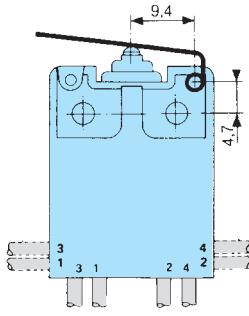
- ① R : 1.5 spherical
- ③ Cable 3 x 0.75 mm<sup>2</sup> length 0.50 m
  - 1 = black lead
  - 2 = brown lead
  - 4 = blue lead

→ Actuator mounting positions

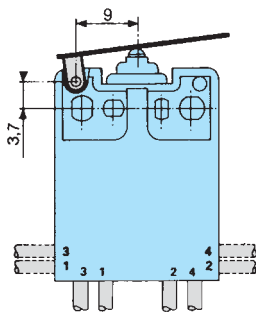
Type 139  
A fixing = 4 holes



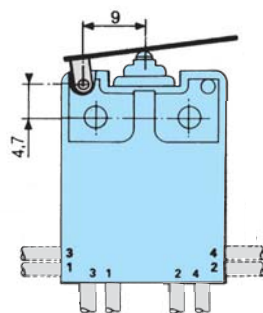
Type 139  
B fixing = 2 holes



Type 161  
A fixing = 4 holes

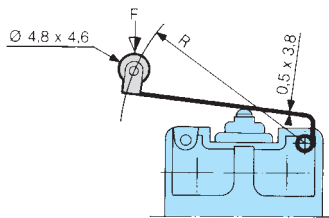


Type 161  
B fixing = 2 holes

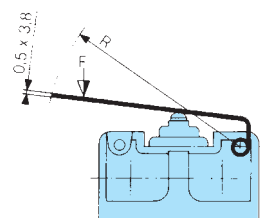


→ Actuators

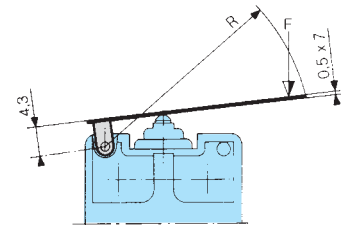
139 EX



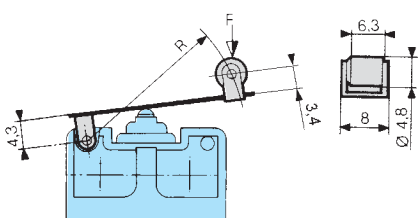
139 AX



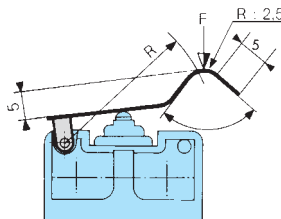
161 A



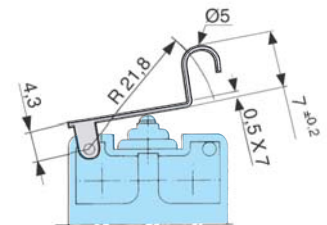
161 E



161 F


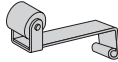




161 G





## Actuators and fixing positions

### Part numbers for standard actuators

		79 215 740		70 507 524		79 215 742		70 507 529			
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					
											
Operating force - max.	N	1.5		2.6		1.7		2.6		1.7	
Release force - min.	N	0.2		0.35		0.2		0.35		0.2	
Differential travel	mm	1.5		0.7		1.25		0.7		1.2	

### Part numbers for standard actuators

		70 507 528		79 218 651	
Actuators	Flat <b>161F</b> F22.3 mm	Dummy roller <b>161 G</b> F21.8			
					
Operating force - max.	N	2		2	
Release force - min.	N	0.2		0.2	
Differential travel	mm	1.1		1.1	

Unless indicated, flat actuators and roller actuators are delivered unmounted.

\*\* Factory fitted

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

## Other information

### Mounting - Operation

See basic technical concepts

#### Warning:

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