

# Sealed

## → 83 139

- IP 67 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	●	-	●
I (changeover)	Lead output on right/left	●	●	-	●
I (changeover)	Cable output	-	-	●	-
<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	0.25
Min. Release force (N)		0.6	0.6	0.6	5 x 10 <sup>6</sup>
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>
Maximum 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	3
Ambient operating temperature (°C)		0 → +85	-20 → +85	-20 → +85	-20 → +85
Mechanical life (operations)		10 <sup>7</sup>	5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>	0.6
Contact gap (mm)		0.3 x 2	0.3 x 2	0.3 x 2	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. 2.3 mm	4 flexible leads 0.75 mm <sup>2</sup> Ø ext. 2.3 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 m Ø ext. 2.3 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 silicon for 83 139 1/2/5

##### Levers

- stainless steel
- Roller : polyamide

##### Characteristics specific to 83 139 1

- Conform to standards EN 50 014 and 50 018
- Conform to the European directive 94/9/EC concerning potentially explosive atmospheres
- Group II classified for potentially explosive atmospheres other than mines subject to firedamp
- Temperature class T6, max. surface temperature 80°C
- CE Test Certificate type n° LCIE 02 ATEX 0034 U
- Notification number : LCIE 03 ATEXQ8002

### Product adaptations



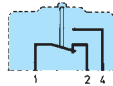
- Special levers
- Special leads, cables, cable harnesses
- Specific operating temperatures

## Principles

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

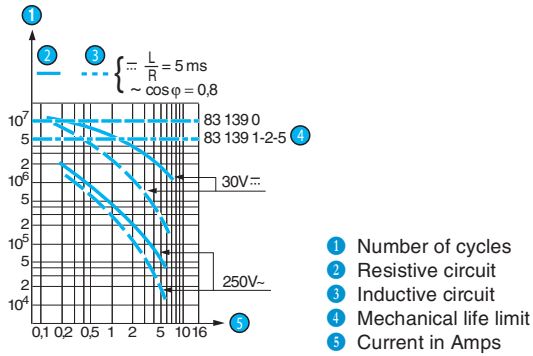


Single break changeover switch  
Type 83 139 2



## Curves

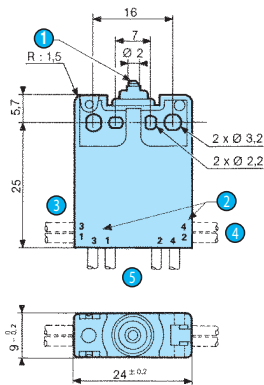
Operating curve for types 83 139 0 / 1 / 2 / 5



## Dimensions

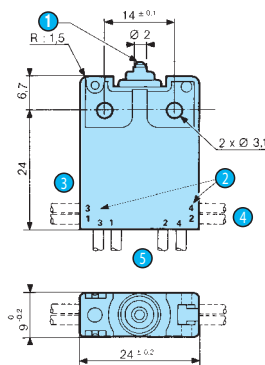
### → Product

83 139 0 - 5  
A fixing = 4 holes



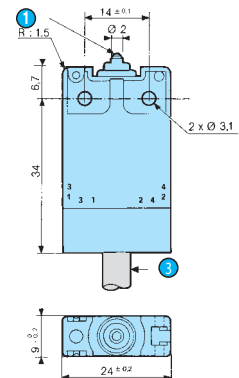
- 1 R : 1.5 spherical
- 2 Lead reference on casing
- 3 Lead output on left
- 4 Lead output on right
- 5 Standard lead output (black)
  - 1 = black lead
  - 2 = brown lead
  - 3 = grey lead
  - 4 = blue lead

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

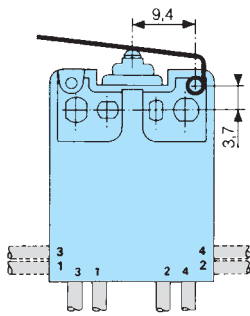
83 139 2  
B fixing = 2 holes



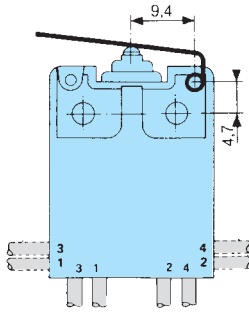
- 1 R : 1.5 spherical
- 3 Cable 3 x 0.75 mm<sup>2</sup> length 0.50 m
  - 1 = black lead
  - 2 = brown lead
  - 3 = blue lead

## → Actuator mounting positions

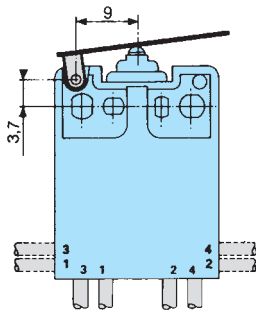
**Type 139**  
A fixing = 4 holes



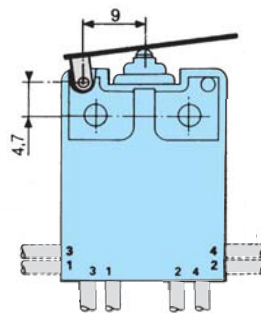
**Type 139**  
B fixing = 2 holes



**Type 161**  
A fixing = 4 holes

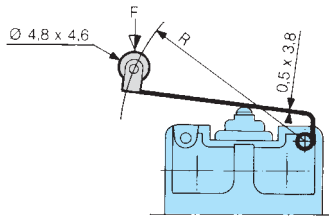


**Type 161**  
B fixing = 2 holes

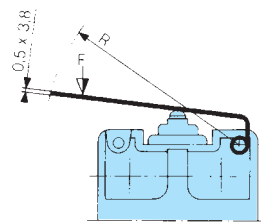


## → Actuators

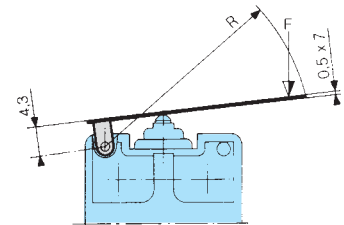
**139 EX**



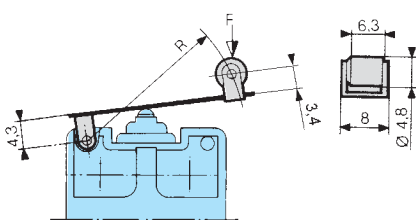
**139 AX**



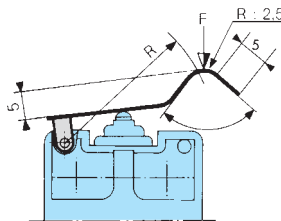
**161 A**



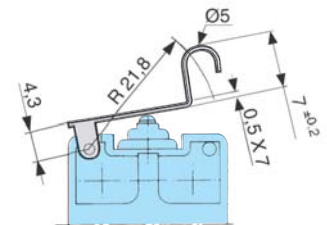
**161 E**



**161 F**


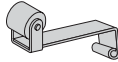




**161 G**





## Actuators and fixing positions

### Part numbers for standard actuators

		79 215 740		70 507 524		79 215 742		70 507 529	
Actuators		Flat 139 AX F29.7 mm**		Roller 139 EX F28.7 mm**		Flat 161A R14.2 - F25.4 mm		Roller 161E R13.6 - F24.1 mm	
									
Operating force - max.	N	1.5		1.5		2.6		1.7	
Release force - min.	N	0.2		0.35		0.2		0.35	
Differential travel	mm	1.5		0.7		1.25		0.7	

### Part numbers for standard actuators

		70 507 528		79 218 651	
Actuators		Flat 161F F22.3 mm		Dummy roller 161 G 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

### Product marking (83 139 1)

 II 2 G  
EEx d IIC T6

### Key to these symbols :

-  - Equipment used in potentially explosive atmospheres
- II - Equipment group for surface use
- 2 - Equipment category for zone 1
- G - Gas

EEx - The equipment complies with the protection methods standardised by CENELEC (European standards)

d - Protection method used : "d" flameproof casing

II - Surface industry

C - Most severe gas subdivision including hydrogen, acetylene and carbon disulphide

T6 - Temperature class corresponding to +85°C

### At the time of ordering, the customer must specify :

- The operating zone (0, 1 or 2)
- The type of atmosphere (gas or dust)
- The type of gas
- The ambient operating temperature