

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
Function				
I (changeover)	Standard lead output 83 139 003	●	-	●
I (changeover)	Lead output on right/left ●	●	-	●
I (changeover)	Cable output -	-	●	-
Electrical characteristics				
Rating nominal / 250 V AC (A)	6	6	6	6
Rating thermal / 250 V AC (A)	11	11	11	11
Mechanical characteristics				
Maximum operating force (N)	3	3	3	0.25
Min. Release force (N)	0.6	0.6	0.6	5 x 10 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 ^{±0.4} B = 8.7 ^{±0.4}	A=7.7 ^{±0.4} B=8.7 ^{±0.4}	B = 8.7 ^{±0.4}	B = 8.7 ^{±0.4}
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 ⁷	5 x 10 ⁶	5 x 10 ⁶	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
Fixations				
Fixings - 4 holes (standard)	A	A	-	-
Fixing - 2 holes	B	B	B	B
Connections				
Connection	4 flexible leads 0.75 mm ² length 0.50 m Ø ext. 2.3 mm	4 flexible leads 0.75 mm ² Ø ext. 2.3 mm	Cable 3 x 0.75 mm ² length 0.50 m Ø ext. 5.2 mm	4 flexible leads 0.75 mm ² 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 85°C
- CE Test Certificate type n° LCIE 02 ATEX 0034 U
- Notification number : LCIE 03 ATEXQ8002

Product adaptations



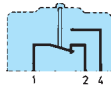
- Special levers
- Special leads, cables, cable harnesses
- Specific operating temperatures

Principles

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

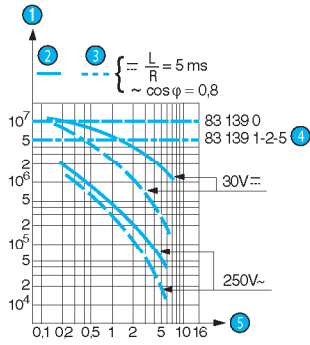


Single break changeover switch
Type 83 139 2



Curves

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

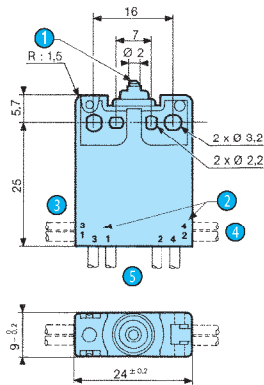


- ① Number of cycles
- ② Resistive circuit
- ③ Inductive circuit
- ④ Mechanical life limit
- ⑤ Current in Amps

Dimensions

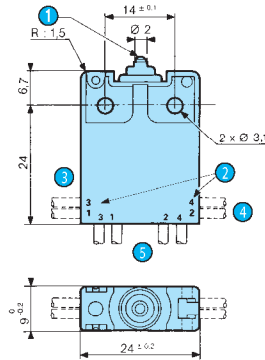
→ Product

83 139 0 - 5
A fixing = 4 holes



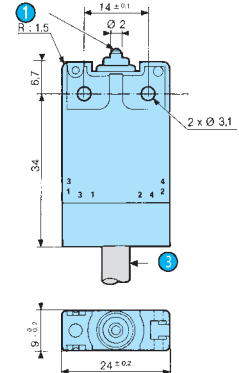
- ① R : 1.5 spherical
- ② Lead reference on casing
- ③ Lead output on left
- ④ Lead output on right
- ⑤ Standard lead output (black)
 - 1 = black lead
 - 2 = brown lead
 - 3 = grey lead
 - 4 = blue lead

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

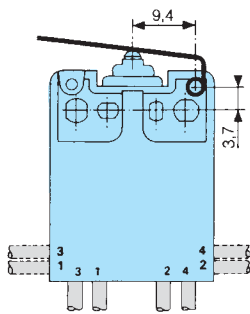
83 139 2
B fixing = 2 holes



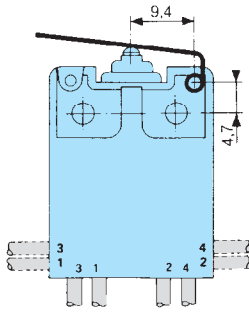
- ① R : 1.5 spherical
- ③ Cable 3 x 0.75 mm² length 0.50 m
 - 1 = black lead
 - 2 = brown lead
 - 3 = blue lead

→ Actuator mounting positions

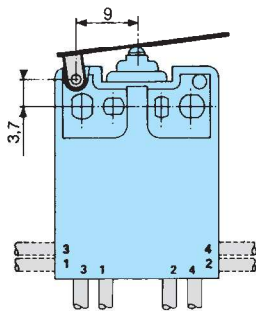
Type 139
A fixing = 4 holes



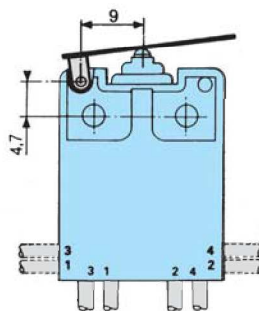
Type 139
B fixing = 2 holes



Type 161
A fixing = 4 holes

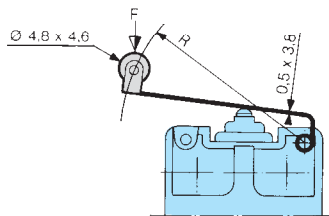


Type 161
B fixing = 2 holes

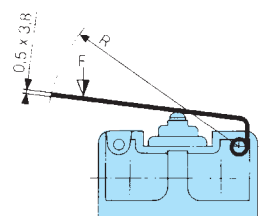


→ Actuators

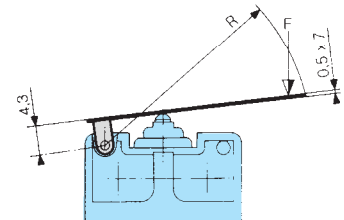
139 EX



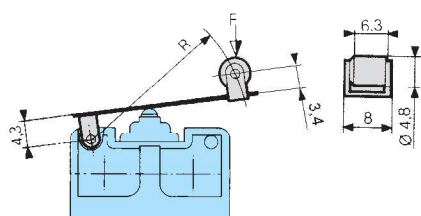
139 AX



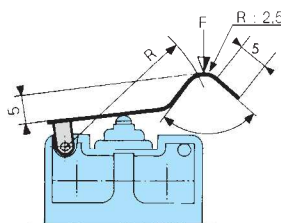
161 A



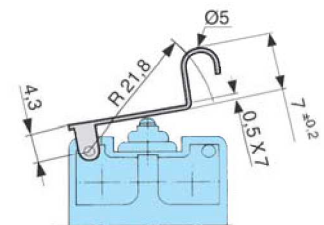
161 E



161 F

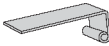
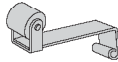




161 G





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