



V4 8318 Sealed Standard 83186 Part number 831860



- IP 67 protection
- Nominal ratings 0.1 A to 10 A / 250 VAC
- Minimum rating 1 mA / 4 VDC
- Operating temperature -40 °C to +125 °C
- Choice of actuators with 2 possible fixing positions

Part numbers

	Type	Function	Connections
831860	Standard 83186	I (changeover)	X1A* - X1S* - X2A* - X2S* - X3A* - X3S* - FB0 - FG0 - CD0** - CB0** - CG0**

Specifications

Electrical characteristics

Rating nominal / 250 VAC (A)	6
Rating thermal / 250 VAC (A)	7,5

Mechanical characteristics

Maximum operating force (N)	2,5
Min. Release force (N)	0,8
Maximum total travel force (N)	4,2
Max. permitted overtravel force (N)	10
Maximum rest position (mm)	9,3
Operating position (mm)	8,4 ±0,3
Maximum differential travel (mm)	0,1
Min. overtravel (mm)	0,6
Ambient operating temperature for blade version (°C)	-40 → +125
Ambient operating temperature for wires/cable version (°C)	-40 → +105
Mechanical life (operations)	2x10 ⁶
Contact gap (mm)	0,4
Weight (g) (tags version)	2

* Création *

* Please consult us for X1 / X2 / X3 connections

** Cable version for types 83181, 83183 and 83186

Additional specifications

Components

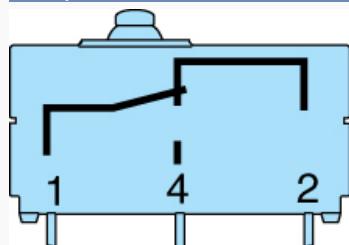
Material

- Case : polyester UL 94VO
- Button : polyester
- Membrane : silicon
- Contacts : AgCdO or AgSnO₂ gold-plated AgNi (dual-current)
- Terminals : silver-plated, tinned brass
- Cable/Lead : PVC

Levers

- Flat : stainless steel
- Roller : stainless steel, polyamide roller

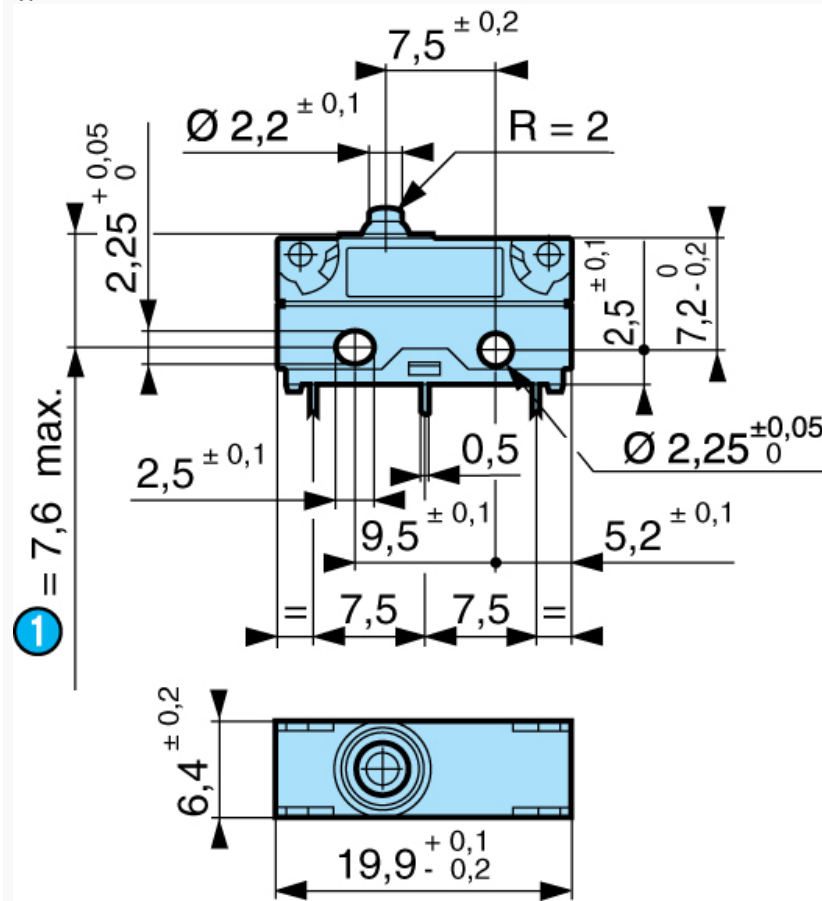
Principles



Dimensions (mm)

Product

Symmetrical version
types 83180 / 181 / 183 / 186

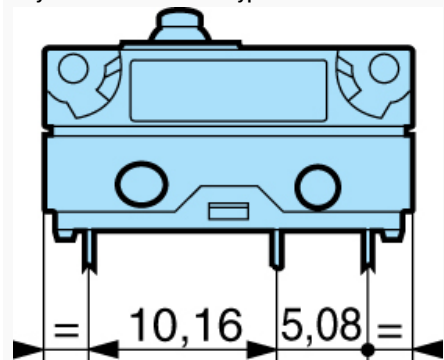


N°	Legend
1	OL = 7.6 max.

Dimensions (mm)

Product

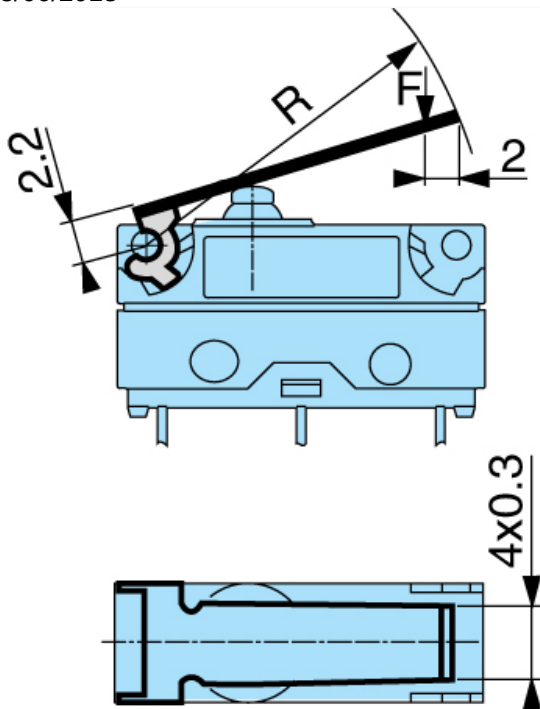
Asymmetrical version for types 83180 / 181 / 183 / 186



Dimensions (mm)

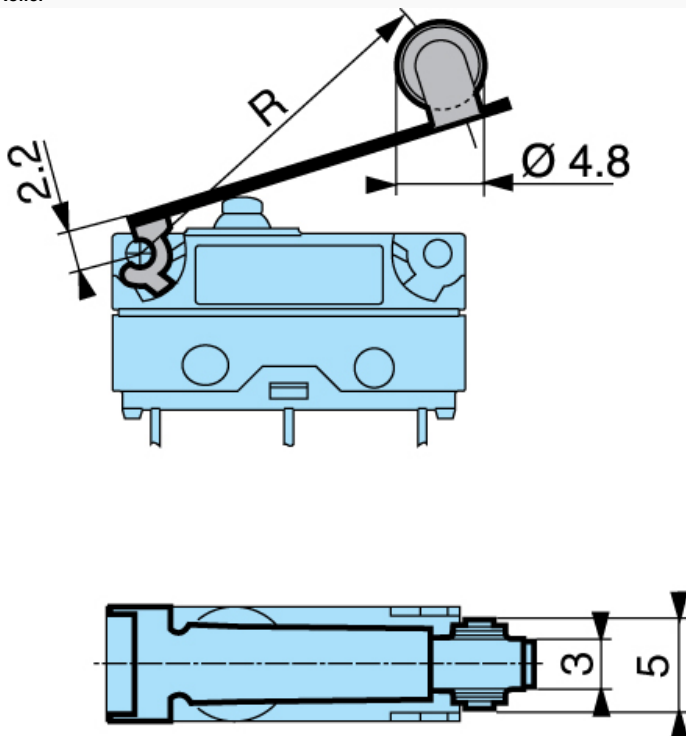
Actuators

170A
Flat

**Dimensions (mm)**

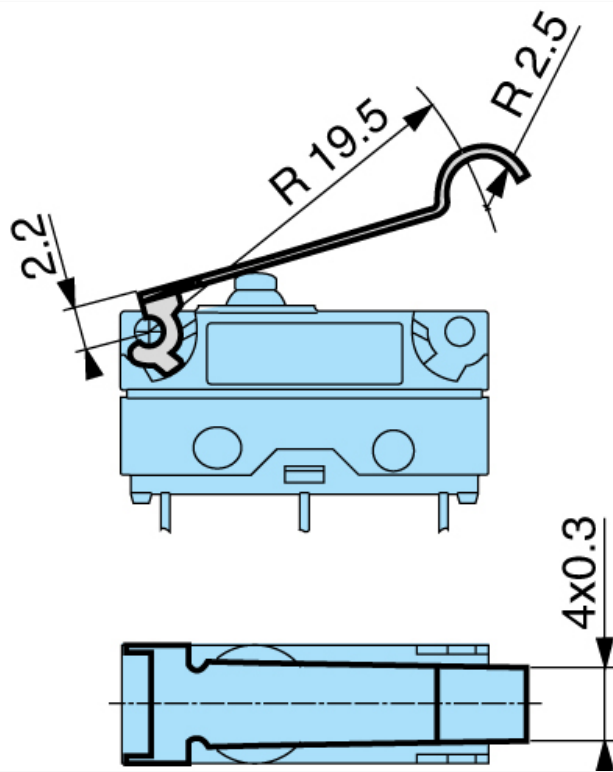
Actuators

170E
Roller

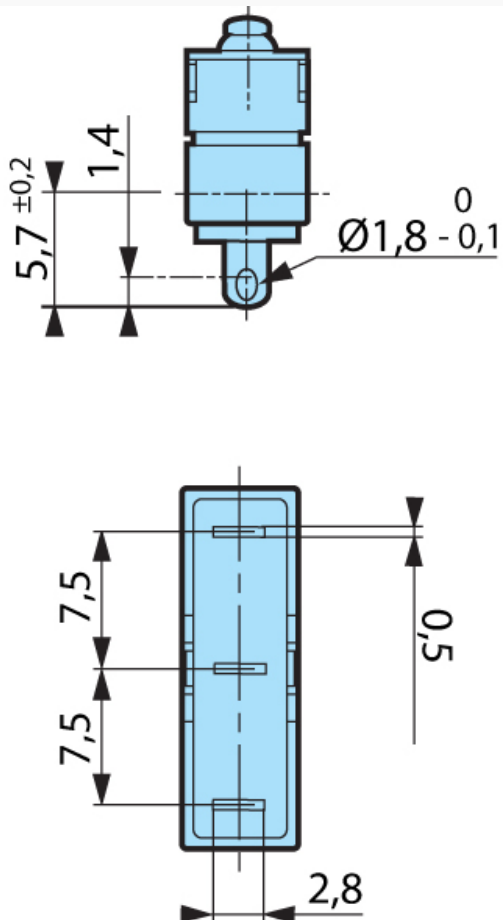
**Dimensions (mm)**

Actuators

170 F
Dummy roller

**Dimensions (mm)****Connections**

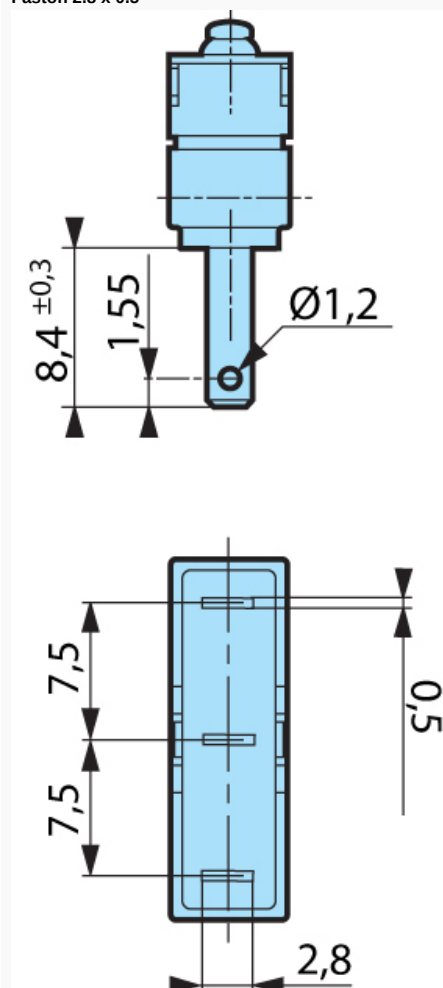
W2S
Solder

**Dimensions (mm)**

Connections

W7S

Faston 2.8 x 0.5

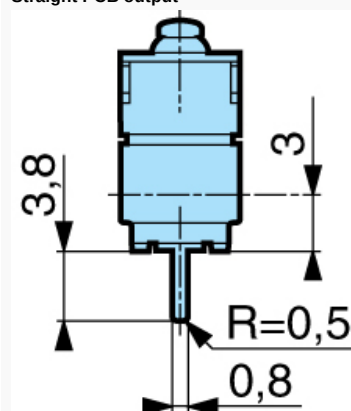


Dimensions (mm)

Connections

X1A

Straight PCB output

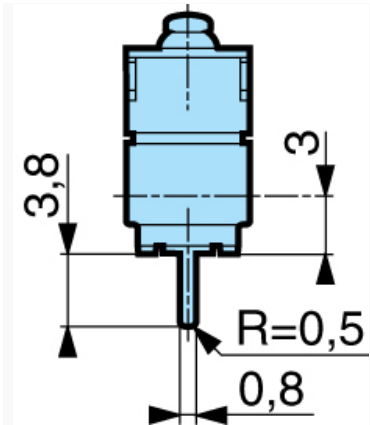


Dimensions (mm)

Connections

X1S

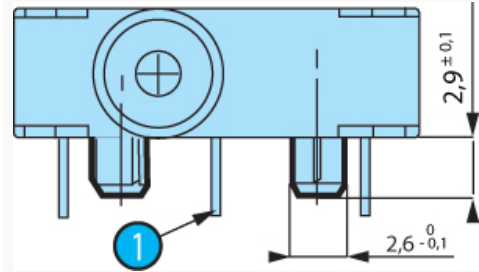
Straight PCB output



Dimensions (mm)

Mounting accessories

Fixing pins

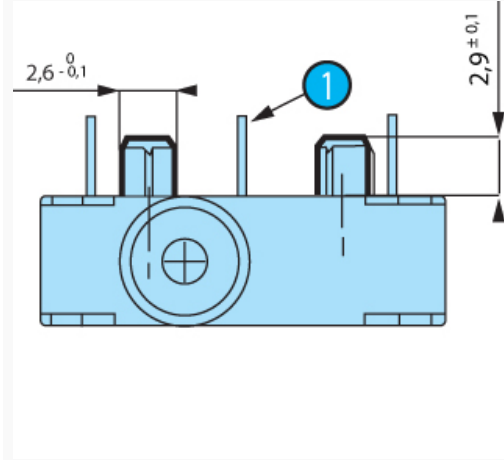


N°	Legend
1	X3 output

Dimensions (mm)

Mounting accessories

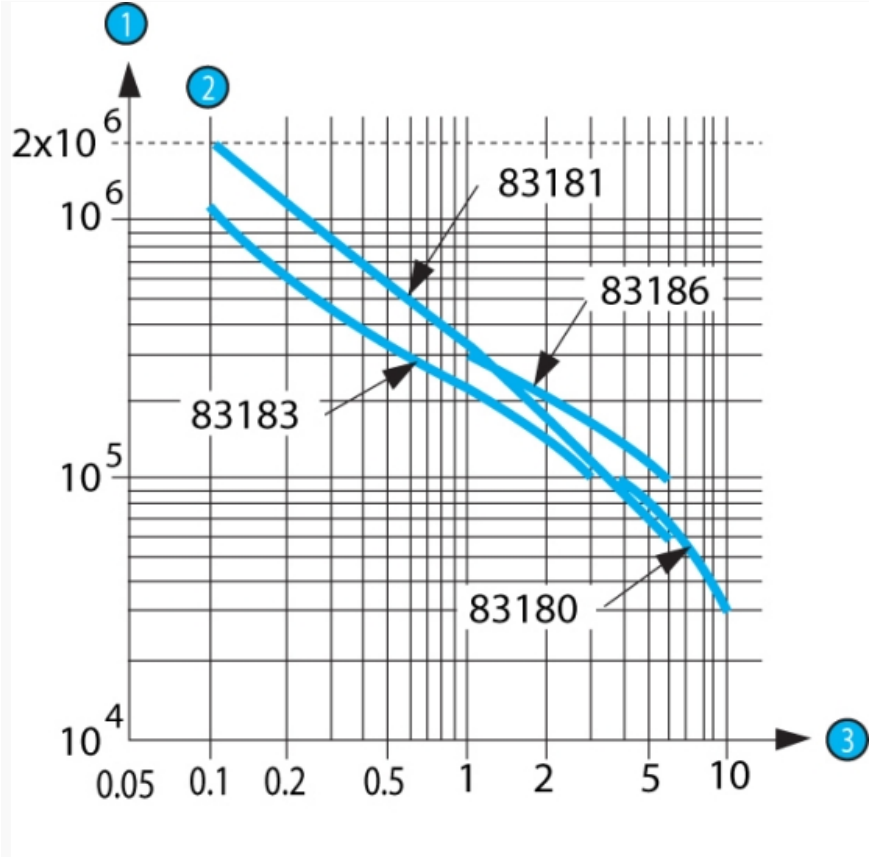
Fixing pins



N°	Legend
1	X2 output

Curves

Operating curve 250 VAC



Model 83181 is designed to operate equally well on dual-current (1 mA 4 V minimum) or medium-current (6 A maximum) circuits. However, a given product should only be used to switch one type of circuit during its working life.

N°	Legend
1	Number of cycles
2	Resistive circuit
3	Current in Amps

Curves					
Switch rating with DC supply					
12 V	Resistive	83180	83181	83183	83186
		10 A	6 A	3 A	6 A
24 V	Inductive L/R 5 ms	10 A	6 A	3 A	6 A
		10 A	6 A	3 A	6 A
24 V	Resistive	10 A	6 A	3 A	6 A
	Inductive L/R 5 ms	5 A	5 A	3 A	5 A

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Connections
Actuators and fixing positions

Part numbers for standard actuators		79253327	79253326	79218454	
Actuators		Flat 170A R18.3	Flat 170A R24	Flat 170A R41	Roller 170E R20
					
Mounting position		A B	A B	A B	A B
Coefficient		3 1.5	4 2	7 3.5	3 1.5
Tripping point		10 ^{+1.4} 9.2 ^{+0.9}	10.7 ^{+1.7} 9.6 ⁺¹	12.7 ⁺³ 10.6 ^{+1.8}	15.5 ^{+1.4} 14.5 ^{+0.9}
83180				11 ⁺¹ 8.8 ^{+1.8}	
83181 / 183 / 186				11.4 ⁺¹ 9.3 ^{+1.8}	
Part numbers for standard actuators		79253329			
Actuators		Dummy roller 170F R19.5	Screw 170D *	Transverse roller 170 EL *	
					
Mounting position		A B			
Coefficient		3 1.5			
Tripping point		12.9 ^{+1.8} 11.9 ^{+1.2}			

Except where otherwise indicated, levers are supplied unmounted.
For factory mounting, specify fixing position A or B.
* To special order

Other information

Mounting - Operation

See basic technical concepts

Degree of protection

- Tag version :

→casing = IP67

→terminals = IP00

- Lead/cable version :

→output/casing = IP67

To calculate force : divide the switch force by the coefficient in the table.

To calculate travel : multiply the switch travel by the same coefficient.

Product adaptations



- Special levers
- Specific fixings
- Special leads, cables, cable harnesses
- NF - UL - cUL approvals

Mouser Electronics

Authorized Distributor

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Crouzet:

[831860C1.BL](#) [831860C1.EL](#) [831860C1.FL](#) [831860C2.0](#) [831860C2.BL](#) [831860C2.EL](#) [831860CFD0.0](#)
[831860CFD0.BL](#) [831860CFD0.EL](#) [831860CFD0.FL](#) [831860CFG0.0](#) [831860CFG0.BL](#) [831860CFG0.EL](#)