

# SUB-SUBMINIATURE MICROSWITCHES - CYLINDRIC BODY

## 83228 / 83229

- › High precision snap-action mechanism with wiping contacts
- › Very compact cylindrical body
- › Flush-mounting model for minimum footprint (83228)
- › Threaded barrel model for precise setting (83229)
- › Long mechanical life
- › Use from 1 mA 4 V<sub>DC</sub> to 5 A 250 V<sub>AC</sub>
- › Operating temperature -55 °C up to +140 °C



### Main specifications

Function	Connections	Flush-mounting 83228	Threaded barrel fixing 83229
		83228001	83229001
I (changeover)	W2 (solder)		
<b>Electrical characteristics</b>			
Rating nominal / 250 V AC (A)		5*	5*
Rating thermal / 250 V AC (A)		10	10
<b>Mechanical characteristics</b>			
Maximum operating force (N)		1.7	1.7
Min. Release force (N)		0.4	0.4
Maximum total travel force (N)		2.5	2.5
Max. Allowable overtravel force (N)		10	10
Maximum rest position (mm)		2.4	7
Operating position (mm)		1.95 <sup>±0.25</sup>	6.55 <sup>±0.25</sup>
Differential travel (mm)		0.13 <sup>±0.06</sup>	0.13 <sup>±0.06</sup>
Min. overtravel (mm)		0.15	0.15
Ambient operating temperature (°C)		-55 → +100	-55 → +100
Mechanical life (operations)		2 x 10 <sup>6</sup>	2 x 10 <sup>6</sup>
Contact gap (mm)		0.35	0.35
Weight (g)		0.7	1.7

### Additional specifications

- Cover: PBT GF (UL 94-V0 / GWFI 960 °C)
- Base: PA46 GF (UL 94-V0 / GWFI 960 °C / GWIT 775 °C)
- Moving blade: gold-plated beryllium copper
- Button: PA66 (optional : ceramic)
- Contacts: gold-plated silver
- Terminals: gold-plated brass
- Threaded barrel: nickel-plated brass

- Degree of protection: IP40 (mechanism)
- Min actuating speed: 0.01 mm/s
- Recommended min actuating speed

- Certification marks: cURus on request (83229) / EAC

### Product adaptations

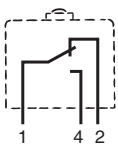


- › Ceramic plunger for high stability of operating position throughout the temperature range
- › High operating temperature: +140 °C
- › Reduced differential travel: max 0.12 mm (SP9202)
- › Telescopic plunger for large overtravel: 1.5 mm (832295)
- › Plunger with ball for lateral approach from any direction
- › M8 x 0.75 threaded barrel
- › 83229 supplied with single nut, assembled or delivered separately
- › cURus approved versions (83229)

### Principles

Single break snap-action switch

Changeover - SPDT (form C)



Standard product

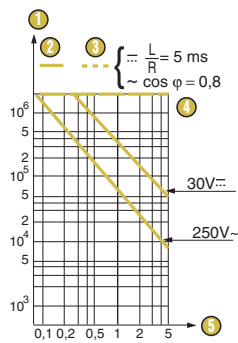
Product made to order



Contact us

Curves

Operating curve for types 83228 - 83229



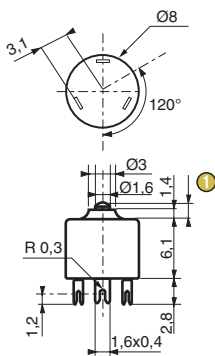
- ① Number of cycles
- ② Resistive circuit
- ③ Inductive circuit
- ④ Mechanical life limit
- ⑤ Current in Amps

\* These products are designed to operate equally well on low-current (1 mA 4 V minimum recommended) or medium-current circuits (5 A maximum) circuits. However, a given product should only be used to switch one type of circuit during its working life.

Dimensions

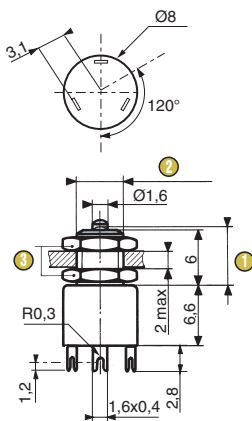
Products

83228



- ① Operating position

83229



- ① Operating position
- ② M5 x 0.5
- ③ 2 nuts: 7 across flats, max tightening torque 0.8 N.m

Installation recommendations

See "Basic technical concepts"

How to order

Use the 8 digit part numbers when they are defined

Other cases, precise: Type of microswitch - Function - Connection - UL approval\* - Adaptation\*

\* if needed

Example: 83229 I W2 UL SP9202

Examples of special adaptations



Plunger with ball (Ø 3 mm) for lateral approach from any direction



Large overtravel model: 832295  
1.5 mm overtravel  
M8 x 0.75 threaded barrel

Warning:

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