

Protected

→ 83 109

- Double break switching
- Front connections
- Options for operation in stable positions
- Choice of actuators and mounting accessories



Main specifications

		Outputs on front face 83 109 0
Function	Connections	
I (changeover)	W2	
R (normally closed)	W2	
C (normally open)	W2	
Electrical characteristics		83 109 004
Rating nominal / 250 V AC (A)		5
Rating thermal / 250 V AC (A)		17.5
Mechanical characteristics		
Maximum operating force (N)		4
Min. Release force (N)		1
Tripping point (mm)		11.45 $\pm 0.2 - 0.25$
Min. overtravel (mm)		0.7
Mechanical life (operations)		10 ⁷
Max. permitted overtravel force (N)		20
Rest position max. (mm)		12.75
differential travel (mm)		0.5 ± 0.2
Ambient operating temperature (°C)		- 40 → +85
Contact gap (mm)		0.4 x 2
Weight (g)		8

Additional specifications

Components

Material

- Case : polyamide UL94V2
- Contacts : nickel silver

Levers

- Mild steel (zinc)
- Roller : polyamide
- Adjusting screws : self-retaining
- Plates : iridescent passivated mild steel (zinc)

NB : Fixing holes for these microswitches have metal ferrules.

Product adaptations



- Special levers
- Reinforced spring
- Special contacts
- Approvals : UL - cUL

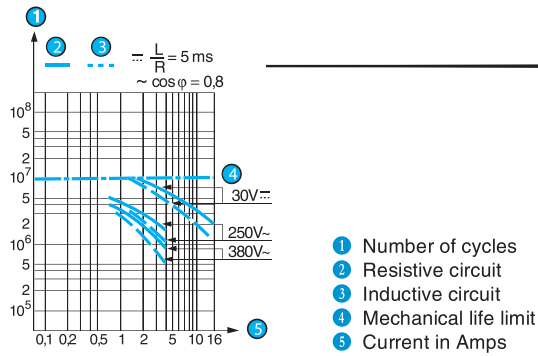
Principles

Double break changeover snap-action switch



Curves

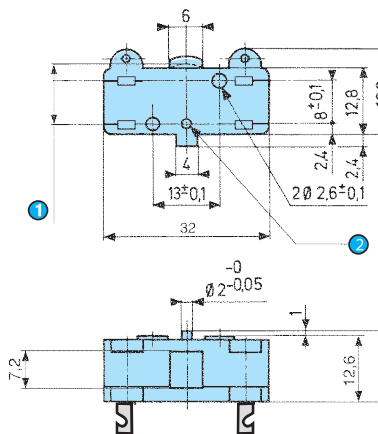
Operating curve for type 83 109 0



Dimensions

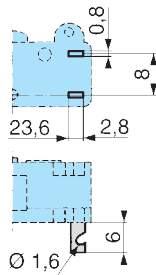
→ Product

83 109 0



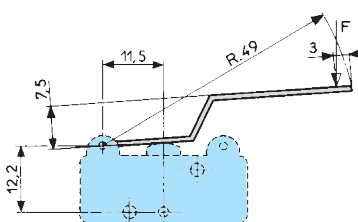
→ Connections

W2 solder



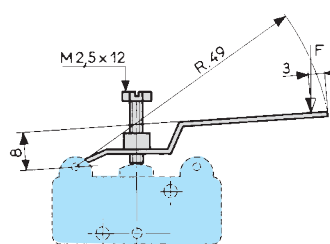
→ Actuators

A



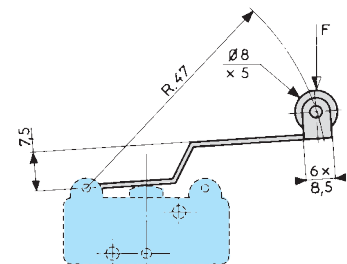
Lever cross-section 1 x 6.4 mm

B



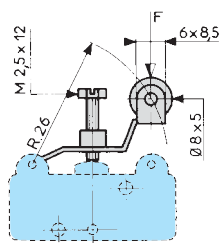
Lever cross-section 1 x 6.4 mm

E



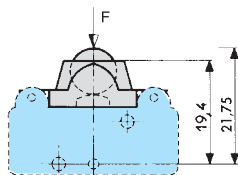
Lever cross-section 1 x 6.4 mm

Q

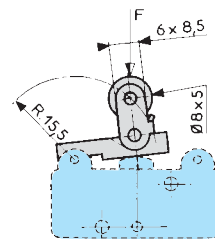


Lever cross-section 1 x 6.4 mm

B9



V3

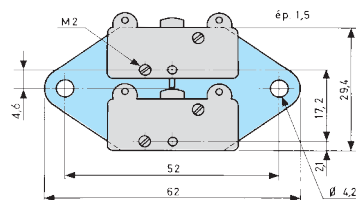


Lever cross-section 1 x 6.4 mm

→ Mounting accessories

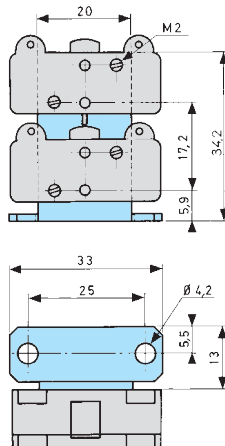
O2

2-pole side mounting plate



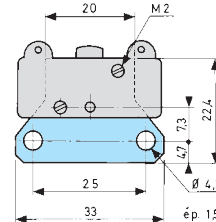
K2

2-pole vertical mounting plate



H

Horizontal single-pole mounting plate



Unless indicated, the thickness of plates is 1.5 mm

Actuators and mounting accessories

Actuators		70500888	70500828	70500813	70500840	70500870	70500170
		A R49	BR49	ER47	Q	V3 R15,5	B9
							
Operating force - max.	N	1.2	1.2	1.2	2.8	4	4
Release force - min.	N	0.25	0.25	0.2	0.45	0.8	1
Pre-travel - max.	mm	6.2	6.2	6.2	3.2	1.45	1.5
Differential travel	mm	2.1 ±0.9	2.1 ±0.9	2.1 ±0.9	1.05 ±0.4	0.5 ±0.2	0.5 ±0.2
Total travel max.	mm	7.5	8.4	7.5	4.5	1.9	1.9

Except where otherwise indicated, the flat and roller levers are mounted as shown in the dimensional drawings (mounted on the left).

Mounting accessories	70500208	70500218	70500216
	H Horizontal single-pole mounting plate	O2 2-pole side mounting plate	K2 2-pole vertical mounting plate
			
Screws: Length	14.5	70599106	

Other information

Mounting - Operation

See basic technical concepts

To ensure protection against electric shock after installation in the application, please consult us when conductive parts are located less than 3mm from case/cover rear mating surfaces, opposite to button side.