

MICROSWITCHES - SENSITIVE, HIGH ACCURACY

83118

- › High precision flexible leaf snap-action mechanism
- › High repeat accuracy
- › Broad range of operating forces from 0.02 N (with lever) to 3 N
- › Operating temperature -40 °C to +125 °C
- › Max rating 10 A 250 V~
- › Very long life - Very robust construction
- › Wide choice of actuators, direct or reverse acting



Main specifications

		Standard 831180	Reduced force 83118 S1
Function	Connections		
I (changeover)	W1	83118007	83118018
I (changeover)	W2 - W3	●	●
Electrical characteristics			
Rating nominal / 250 V AC (A)		5	5
Rating thermal / 250 V AC (A)		17	17
Mechanical characteristics			
Maximum operating force (N)		2.7	1.5
Min. Release force (N)		0.75	0.5
Tripping point (mm)		16 ^{±0.3}	16 ^{±0.4}
Min. overtravel (mm)		0.2	0.3
Mechanical life (operations)		5x10 ⁶	5x10 ⁶
Maximum total travel force (N)		4	3
Max. permitted overtravel force (N)		30	30
Rest position max. (mm)		16.7	16.6
Differential travel (mm)		0.03 → 0.09	0.03 → 0.09
Ambient operating temperature (°C)		- 40 → +125	- 40 → +125
Contact gap (mm)		0.5	0.5
Weight (g)		21	21

Additional specifications

- Case: thermosetting PF GF (UL 94-V0)
- Button: copper nickel
- Moving blade: beryllium copper
- Contacts: silver alloy
- Degree of protection: IP40 (mechanism)
- Recommended min actuating speed: 0.01 mm/s
- Conformity / Certifications: on request /

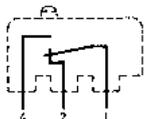
Product adaptations



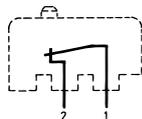
- › Hinged levers with direct action
- › Telescopic plunger with 5 mm overtravel and adjustable fixing by threaded barrel (52L actuator)
- › cURus approved versions for 10 A 125 V~ / 5 A 250 V~

Principles

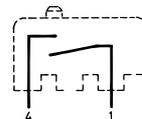
Single break snap-action switch
Changeover - SPDT (form C)



Normally closed - SPST-NC (form B)



Normally open - SPST-NO (form A)



Standard product

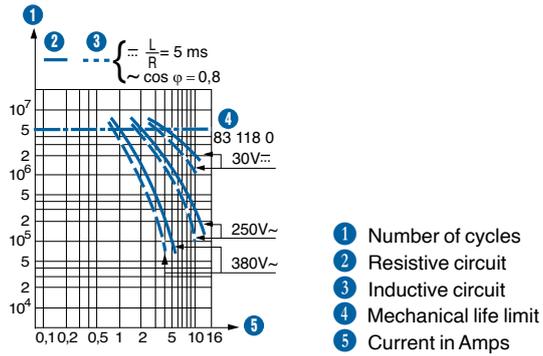
Product made to order



Contact us

Curves

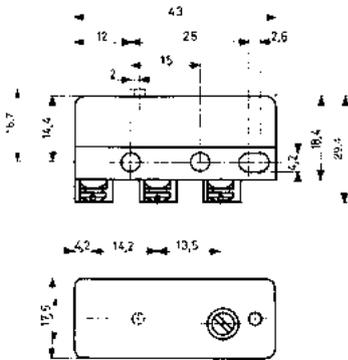
Operating curve for types 831180 - 83118 S1



Dimensions

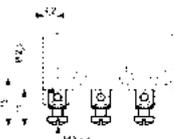
Product

831180 / 83118 S1

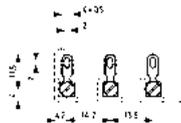


Connections

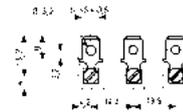
W1 screw



W2 solder

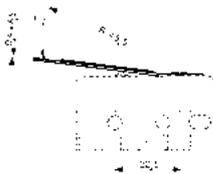


W3 quick-connect 6.3 x 0.8

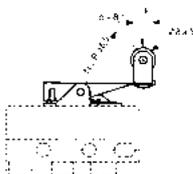


Actuators

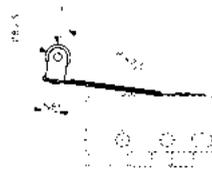
52A R45.5



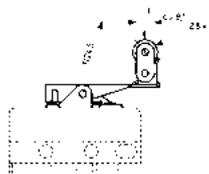
52N R36.5



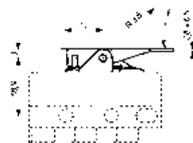
52B R42.5



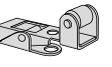
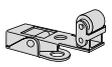
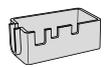
52V R24.5



52M R38



Actuator and mounting accessories

Part numbers for actuators		70520100	70520670	70520186	70520196	70520669	70520029
Flexible direct-acting actuators : 52A - 52B		52A	52B	52M	52N	52V	70 520 029
Hinged reverse-action actuators : 52M - 52N - 52V		R45.5	R42.5	R38	R36.5	R24.5	
							
		831180	83118S1	831180	83118S1	831180	83118S1
Operating force - max.	N	2.5	1.4	0.85	1.5	1.4	2.5
Release force - min.	N	0.8	0.55	0.27	0.4	0.4	0.6
Pre-travel - max.	mm	4.5		2		1.5	
Differential travel	mm	0.45 ±0.25		0.3 ±0.15		0.16 ±0.09	
Total travel max.	mm	7		10		5	

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 - Actuator*
 * if needed
 Example: 83118 S1 | W1 52AA

Warning:

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