

Subminiature

→ V4 Mushroom-head button



- Nominal ratings 0.1 A to 10 A/250 VAC
- Minimum rating 1 mA/4 VDC
- Operating temperature up to +125°C
- Operated via multidirectional action
- Conforming to standards EN 61058 and UL 1054
- Choice of actuators with 2 possible fixing positions



Main specifications

	Standard 83 170 0	Low force 83 170 4	Dual-current 83 170 8	Dual-current 83 170 9
Function				
I (changeover)	W2 - W7A5 - X1 - X1S - X2 - X2S - X3 - X3S	•	•	•
R (normally closed)	W2 - W7A5	•	•	•
C (normally open)	W2 - W7A5	•	•	•
Electrical characteristics				
Rating nominal / 250 V AC (A)	10	5	0.1*	0.1*
Rating thermal / 250 V AC (A)	12.5	6	6	6
Mechanical characteristics				
Maximum operating force (N)	1.5	0.6	1.5	0.6
Min. Release force (N)	0.3	0.1	0.3	0.1
Maximum total travel force (N)	1.8	1	1.8	1
Max. permitted overtravel force (N)	10	10	10	10
Rest position max. (mm)	10.8	10.8	10.8	10.8
Tripping point (mm)	9.9 ^{+0.3}	9.9 ^{+0.3}	9.9 ^{+0.3}	9.9 ^{+0.3}
Maximum differential travel (mm)	0.15	0.15	0.15	0.15
Min. overtravel (mm)	0.5	0.5	0.5	0.5
Ambient operating temperature (°C)	-20 → +125	-20 → +125	-20 → +125	-20 → +125
Mechanical life (operations)	10 ^{6**}	10 ⁶	10 ^{6**}	10 ⁶
Contact gap (mm)	0.4	0.4	0.4	0.4
Weight (g)	1.7	1.7	1.7	1.7
Comments				
* see operating curves				
** for 2/3 of the overtravel				

Additional specifications

Components

Material

- Case : polyester UL 94 VO
- Button : glass-filled polyamide
- Contacts : nickel silver - gold alloy (dual-current)
- Terminals : cupro-nickel except W7A5 in brass

Levers

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

Approvals : NF - UL - cUL

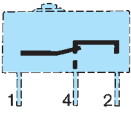
Product adaptations



- Special connections

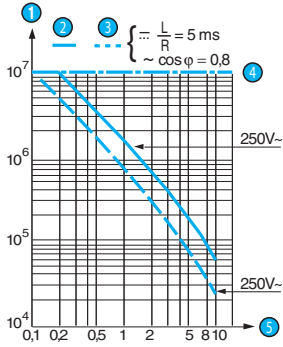
Principles

Single break changeover switch



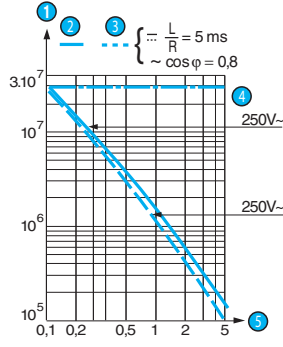
Curves

Operating curve for type 83 170 0



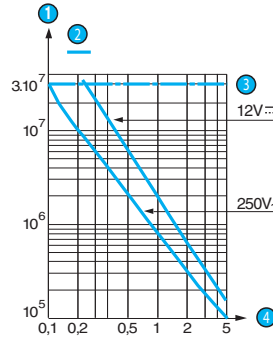
- 1 Number of cycles
- 2 Resistive circuit
- 3 Inductive circuit
- 4 Mechanical life limit
- 5 Current in Amps

Operating curve for type 83 170 4



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

Operating curve for types 83 170 8/83 170 9



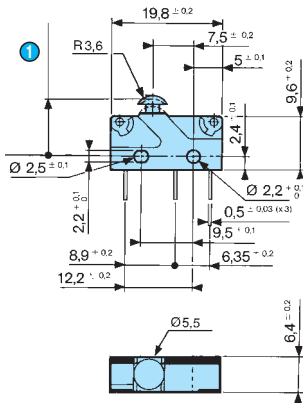
- 1 Number of cycles
- 2 Resistive circuit
- 3 Mechanical life limit
- 4 Current in Amps

Models 83 170 8 and 83 170 9 are designed to operate equally well on dual-current (1 mA 4 V minimum) or medium-current (5 A maximum) circuits. However, a given product should only be used to switch one type of circuit during its working life.

Dimensions

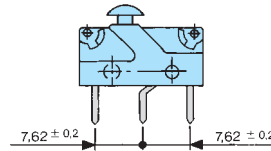
→ Product

83 170 Asymmetrical version



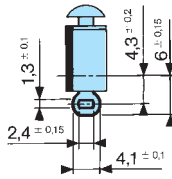
1 OL : 9.1 max.

83 170 Symmetrical version

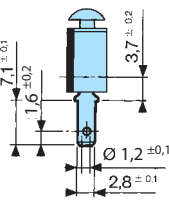


→ Connections

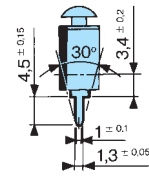
W2



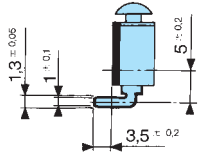
W7A5



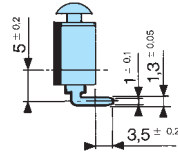
X1 - X1S



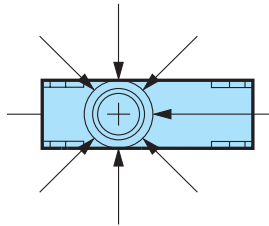
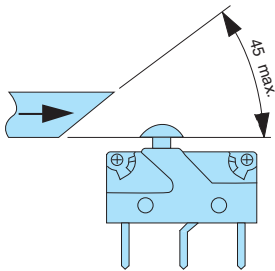
X2 - X2S



X3 - X3S

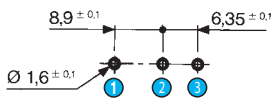


Recommendations for operation from the side



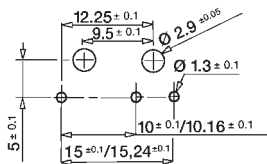
→ Drilling

Printed circuit board mounting
Asymmetrical X1 - X2 - X3

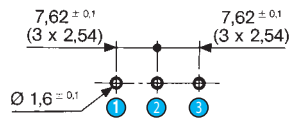


- 1 1.C
- 2 4.NO
- 3 2.NC

Mounting on a printed circuit board
with fixing pins
Asymmetrical

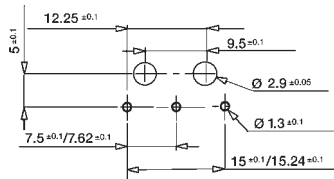


Printed circuit board mounting
Symmetrical X1S - X2S - X3S



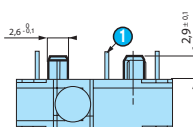
- 1 1.C
- 2 4.NO
- 3 2.NC

Mounting on a printed circuit board
with fixing pins
Symmetrical



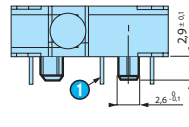
→ Mounting accessories

Fixing pins



- 1 Output on unit side : X2

Fixing pins



- 1 Output on cover side : X3

Other information

Mounting - Operation
See basic technical concepts