CROUZET SWITCHES

# V4 83170 Low force 831704 Part number made to order

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

## Part numbers

| | Type | Function | Connections |
|---|---|---|---|
| MADE TO ORDER | Low force 831704 | I (changeover) | X1S - X2 - X2S - X3 - X3S |

## Specifications

### Electrical characteristics

| | |
|---|---|
| Rating nominal / 250 VAC (A) | 5 |
| Rating thermal / 250 VAC (A) | 6 |

### Mechanical characteristics

| | |
|---|---|
| Maximum operating force (N) | 0,6 |
| Min. Release force (N) | 0,1 |
| Maximum total travel force (N) | 1 |
| Max. permitted overtravel force (N) | 10 |
| Maximum rest position (mm) | 9,2 |
| Operating position (mm) | $8,4^{\pm 0,3}$ |
| Max. differential travel mm | 0,15 |
| Min. overtravel (mm) | 0,5 |
| Ambient operating temperature (°C) | -20 →+125 |
| Mechanical life (operations) | $3.10^7$ |
| Contact gap (mm) | 0,4 |
| Weight (g) | 1,7 |

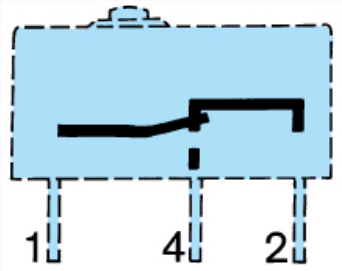
## Additional specifications

**Components**
**Material**
- Case : polyester UL 94 VO
- Button : Glass-filled polyamide
- Contacts : AgNi, gold-plated AgNi (dual-current)
- Terminals : cupro-nickel (except W7A5 in brass)

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

**Approvals**
NF - UL - cUL

## Principles



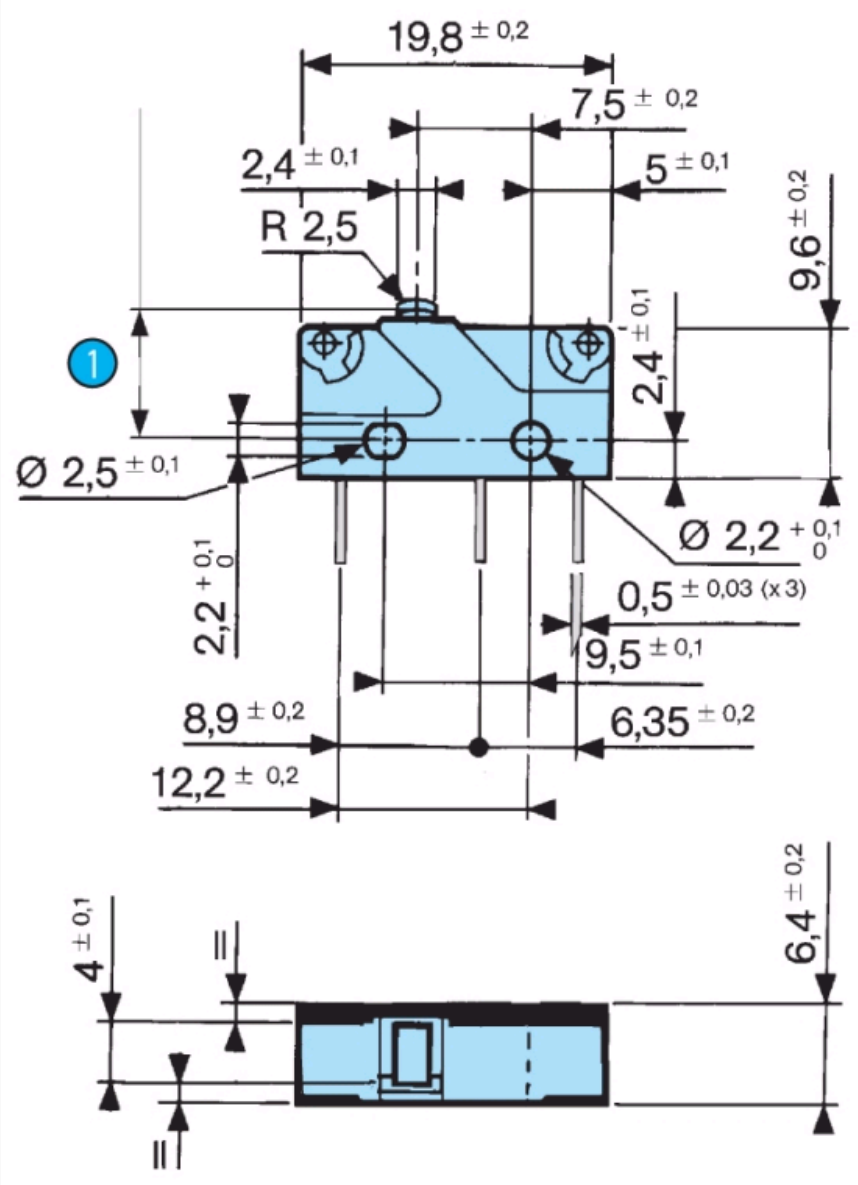

## Dimensions (mm)

### Product

**83170**

*Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected*

**Asymmetrical version**

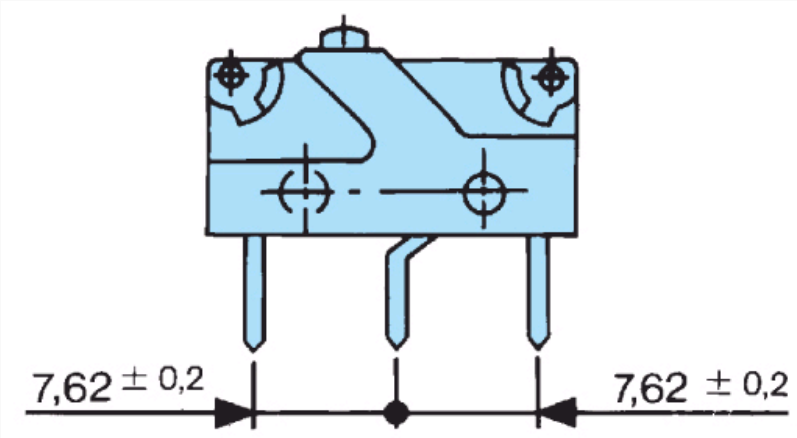



| Nº | Legend |
|---|---|
| 1 | OL = 7.6 |

## Dimensions (mm)

**Product**

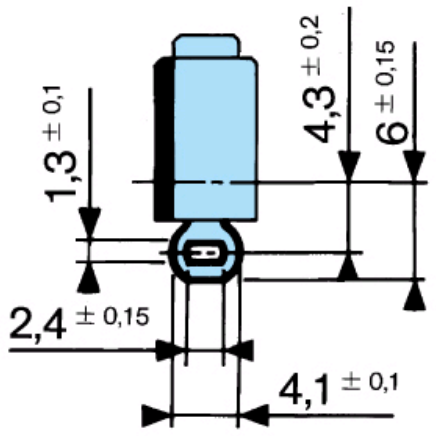
**83170 Symmetrical version**



## Dimensions (mm)

### Connections

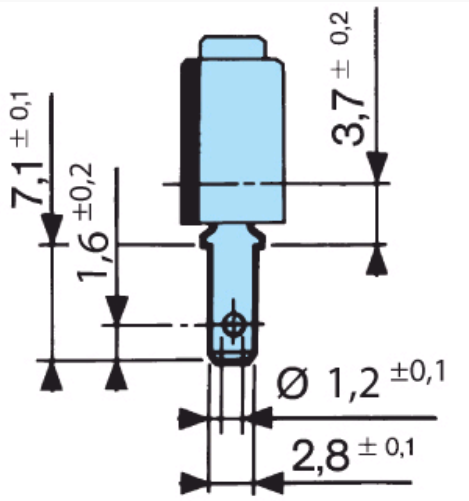
**W2**




## Dimensions (mm)

### Connections

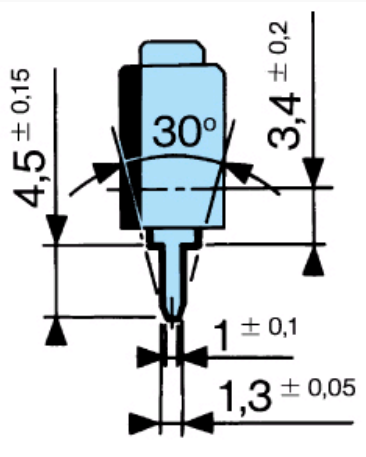
**W7A5**




## Dimensions (mm)

### Connections

**X1 - X1S**

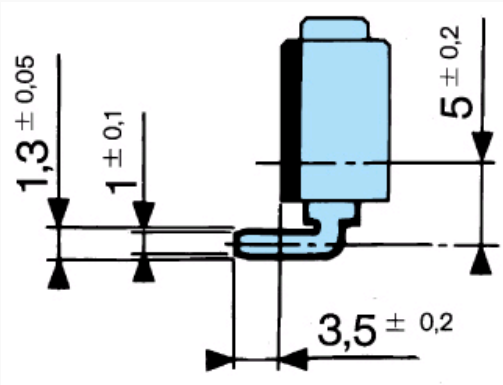



## Dimensions (mm)

### Connections

*Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected*

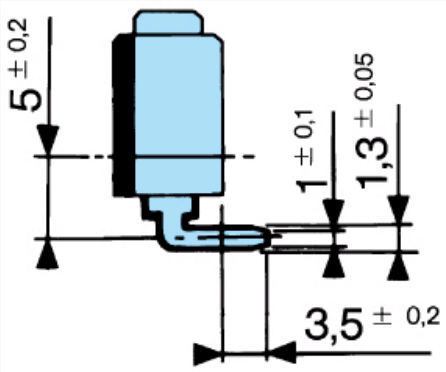
**X2 - X2S**




## Dimensions (mm)

### Connections

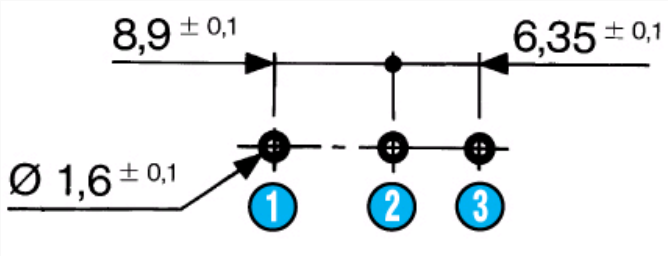
**X3 - X3S**




## Dimensions (mm)

### Drilling

**Printed circuit board mounting**
**Asymmetrical X1 - X2 - X3**

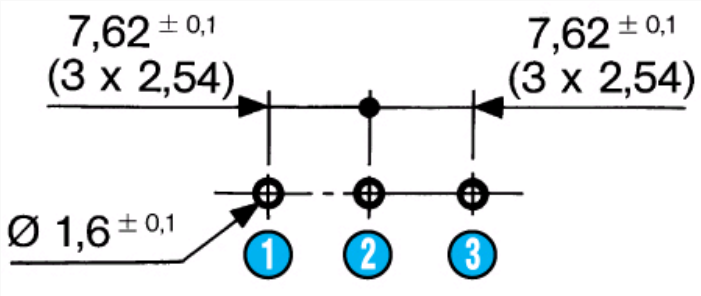



| Nº | Legend |
|---|---|
| 1 | 1.C |
| 2 | 4.NO |
| 3 | 2.NC |

## Dimensions (mm)

### Drilling

**Printed circuit board mounting**
**Symmetrical X1S - X2S - X3S**

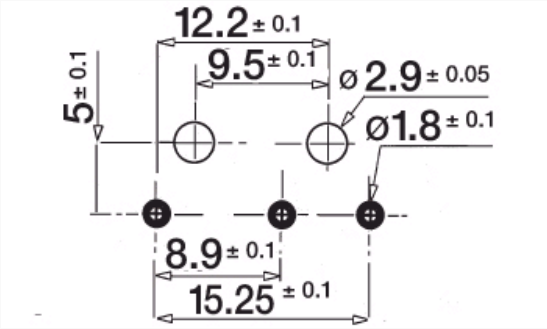



| Nº | Legend |
|---|---|
| 1 | 1.C |
| 2 | 4.NO |
| 3 | 2.NC |

## Dimensions (mm)

### Drilling

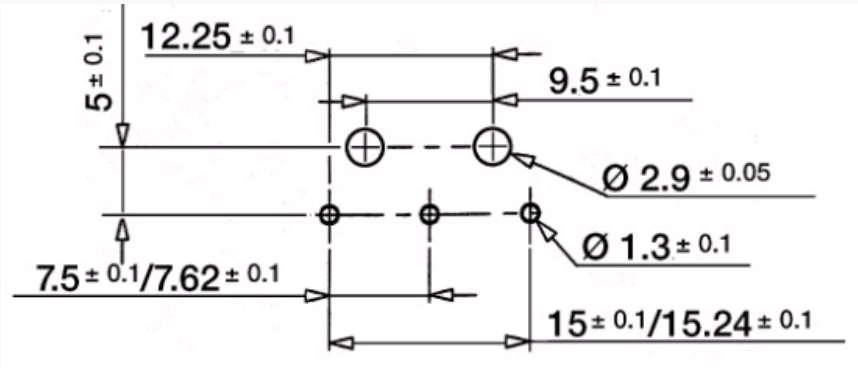
**Mounting on a printed circuit board with fixing pins**
**Asymmetrical**




## Dimensions (mm)

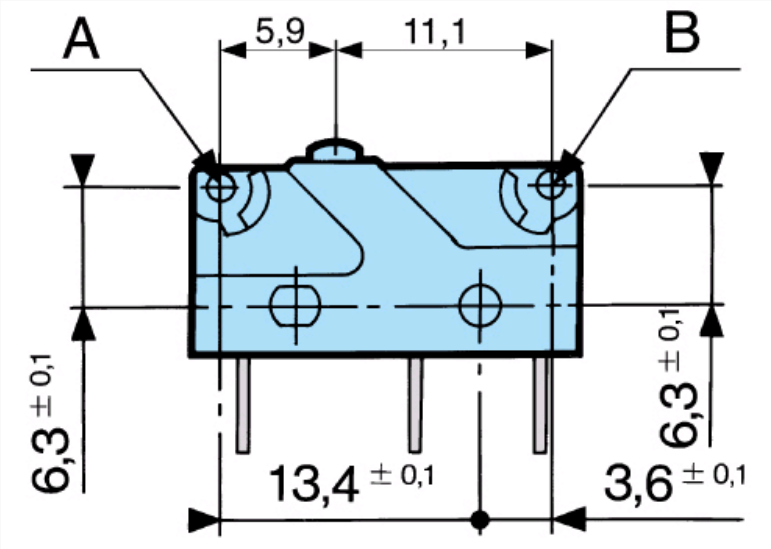
### Drilling

**Mounting on a printed circuit board with fixing pins**
**Symmetrical**




## Dimensions (mm)

### Actuator mounting positions

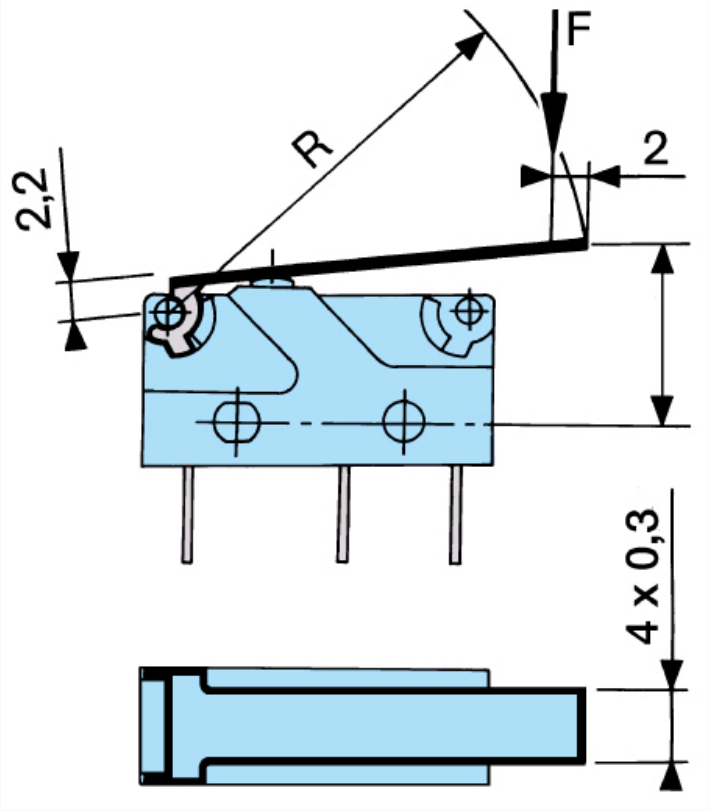



Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

## Dimensions (mm)

### Actuators

**170A**

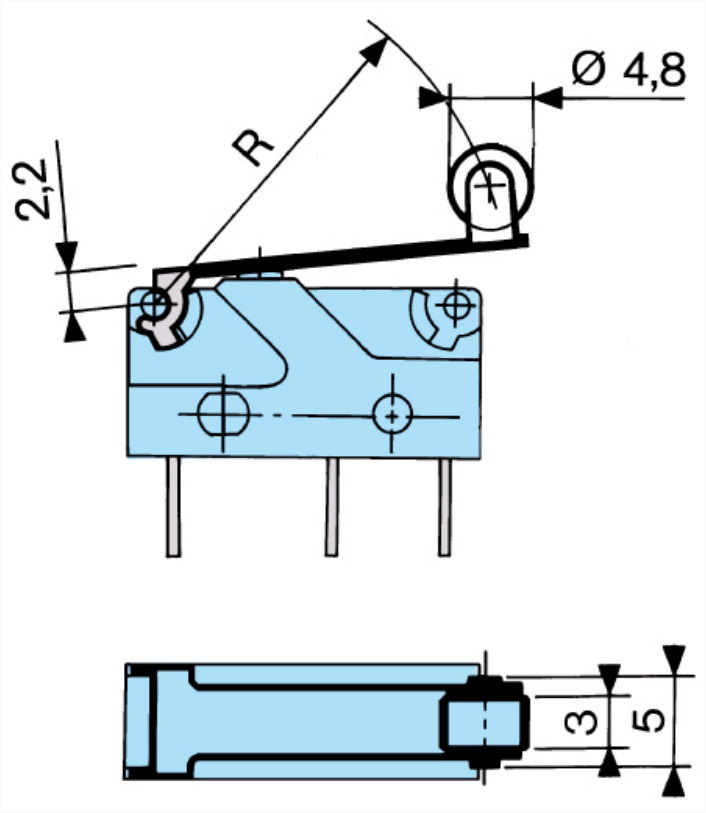



Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

## Dimensions (mm)

### Actuators

**170E**

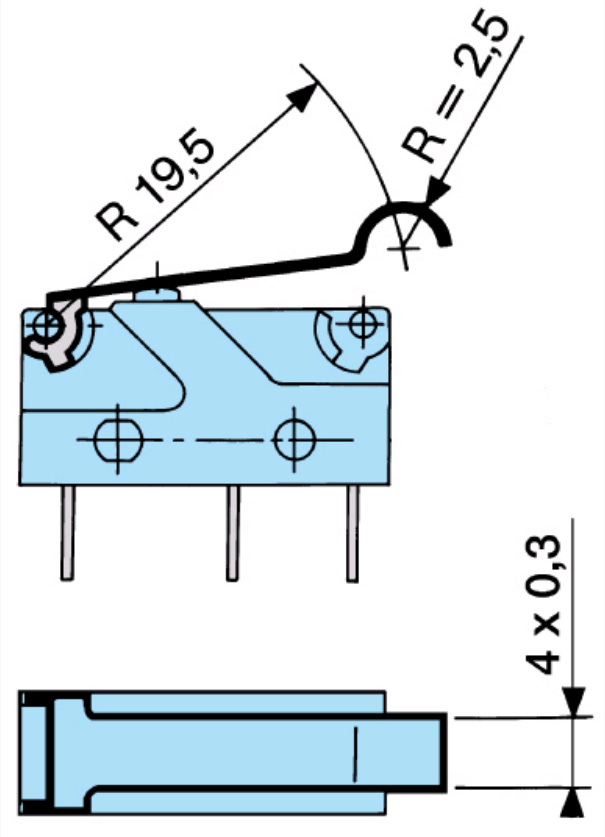



Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

## Dimensions (mm)

### Actuators

**170F**

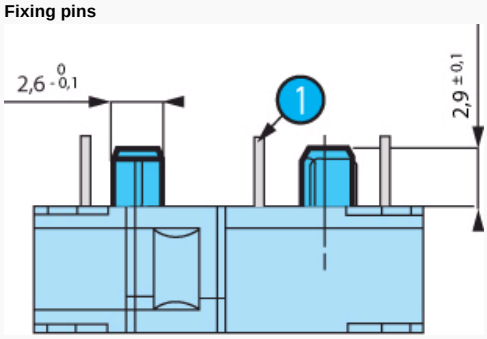



Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

## Dimensions (mm)

### Mounting accessories

**Fixing pins**



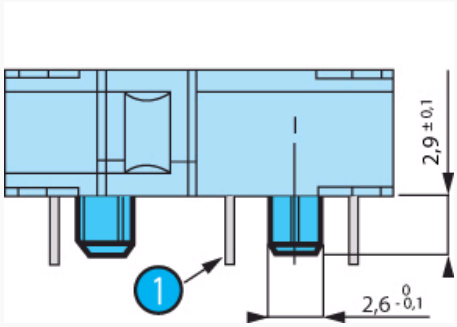

Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

| N° | Legend |
|---|---|
| 1 | Output on unit side : X2 |

## Dimensions (mm)

### Mounting accessories

**Fixing pins**

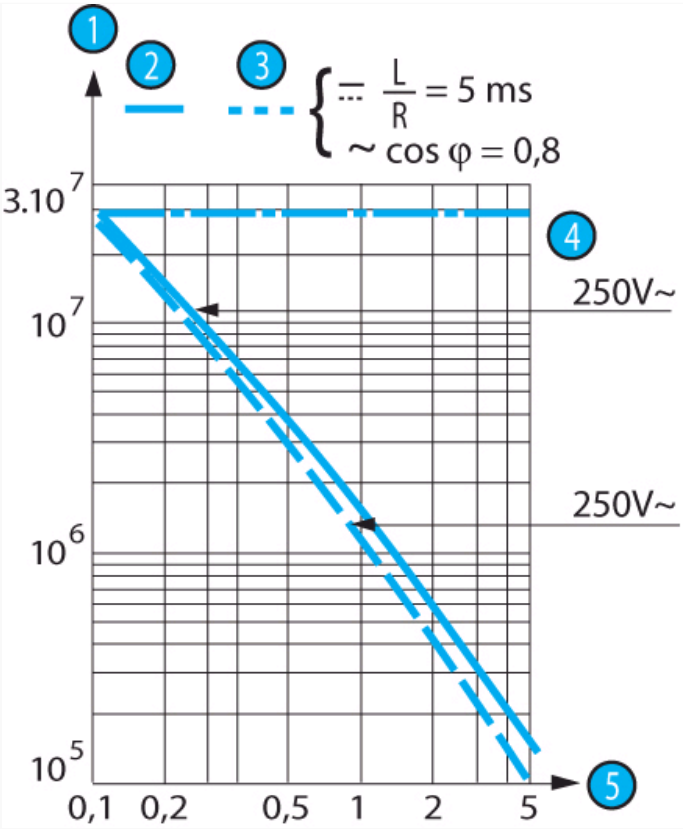



Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

| N° | Legend |
|---|---|
| 1 | Output on cover side : X3 |

## Curves

**Operating curve for type 831704**




| Nº | Legend |
|---|---|
| 1 | Number of cycles |
| 2 | Resistive circuit |
| 3 | Inductive circuit |
| 4 | Mechanical life limit |
| 5 | Current in Amps |

## Connections

### Actuators and fixing positions

| Part numbers for standard actuators | 79253327 | 79253326 | 79253328 | 79218454 | 79253329 |
|---|---|---|---|---|---|
| Actuators | Flat 170A R18.3 | Flat 170A R24 | Flat 170A R41 | Roller 170E R20 | Dummy roller 170F |
| Fixing positions | | | | | |
| Coefficient | A 3 / B 1.5 | A 4 / B 2 | A 7 / B 3.5 | A 3 / B 1.5 | A 3 / B 1.5 |
| Tripping point | 10 ±1.4 / 9.2 ±0.9 | 10.7 ±1.7 / 9.6 ±1 | 12.7 ±1 / 10.6 ±1.8 | 15.5 ±1.4 / 14.5 ±0.9 | 12.9 ±1.3 / 11.9 ±1.1 |
| Levers | Screw 170D | Transverse roller 170EL | | | |
| | | | | | |
| Characteristics available on request | | | | | |

## Other information

**Mounting - Operation**
See basic technical concepts

## Product adaptations

- Special levers
- Special connections