

## V4 83170 Dual-current 831708 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               |
|----------------------|---------------------|----------------|---------------------------|
| <b>MADE TO ORDER</b> | Dual-current 831708 | I (changeover) | X1S - X2 - X2S - X3 - X3S |

### Specifications

#### Electrical characteristics

|                              |     |
|------------------------------|-----|
| Rating nominal / 250 VAC (A) | 0,1 |
| Rating thermal / 250 VAC (A) | 6   |

#### Mechanical characteristics

|                                     |                     |
|-------------------------------------|---------------------|
| Maximum operating force (N)         | 1,5                 |
| Min. Release force (N)              | 0,3                 |
| Maximum total travel force (N)      | 1,8                 |
| Max. permitted overtravel force (N) | 10                  |
| Maximum rest position (mm)          | 9,2                 |
| Operating position (mm)             | 8,4 <sup>+0,3</sup> |
| Max. differential travel mm         | 0,15                |
| Min. overtravel (mm)                | 0,5                 |
| Ambient operating temperature (°C)  | -20 → +125          |
| Mechanical life (operations)        | 10 <sup>6</sup>     |
| 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)

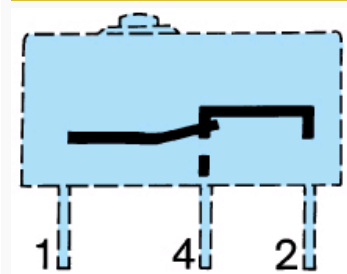
##### Levers

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

##### Approvals

NF - UL - cUL

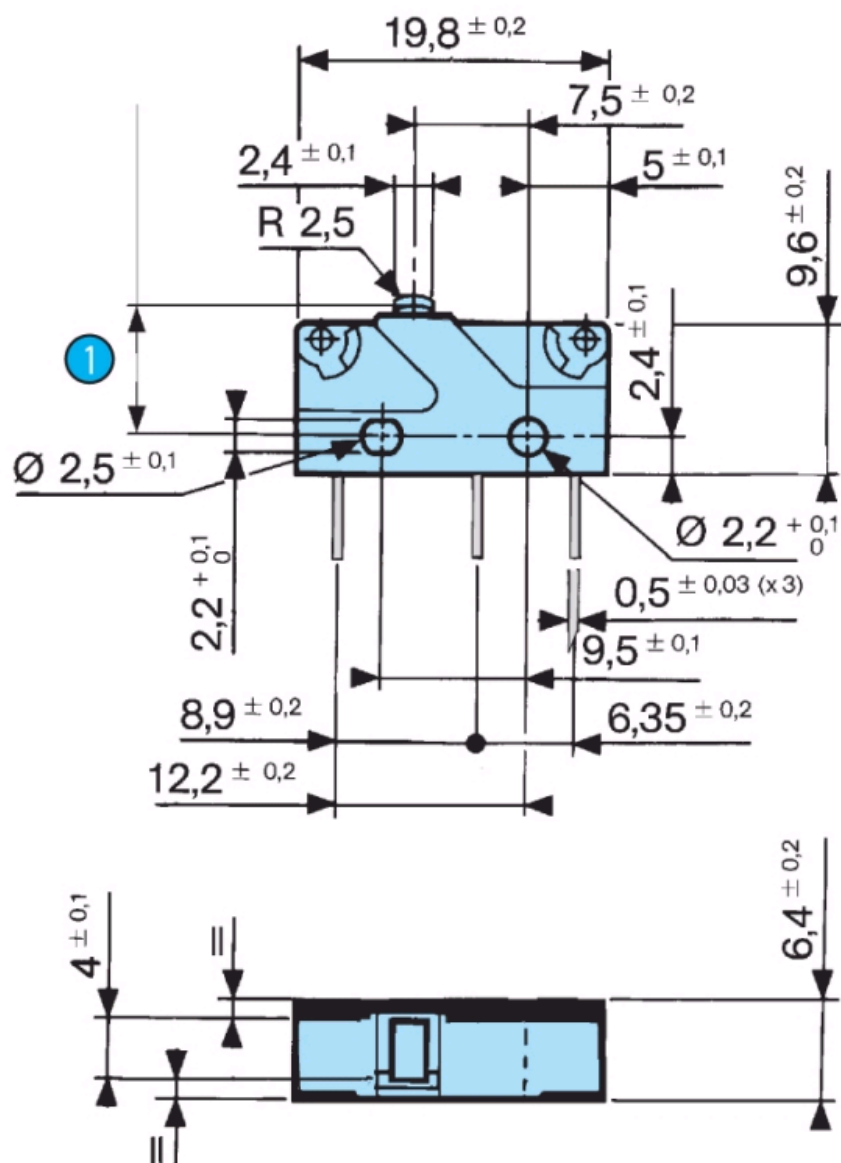
### Principles



### Dimensions (mm)

#### Product

83170

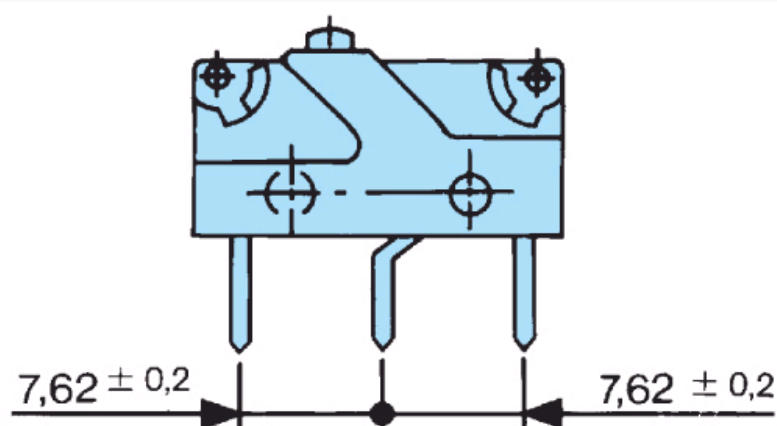


| N° | Legend   |
|----|----------|
| 1  | OL = 7.6 |

#### Dimensions (mm)

#### Product

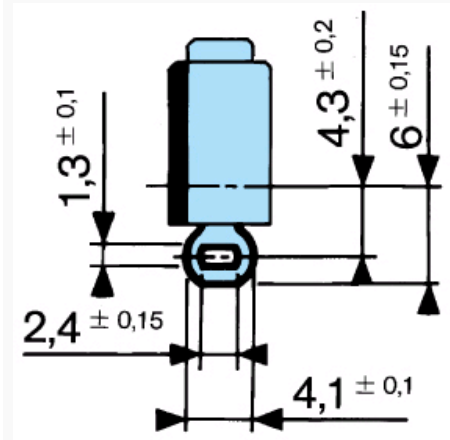
83170 Symmetrical version



Dimensions (mm)

Connections

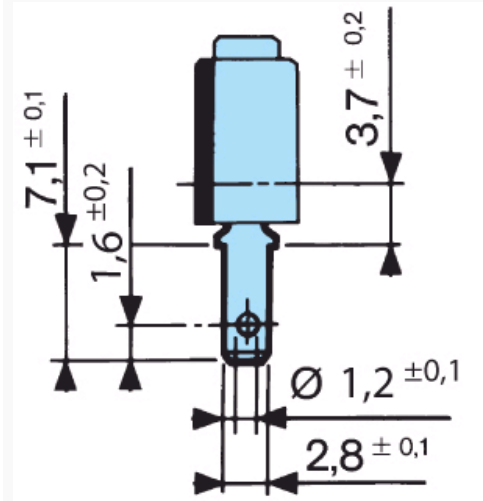
W2



Dimensions (mm)

Connections

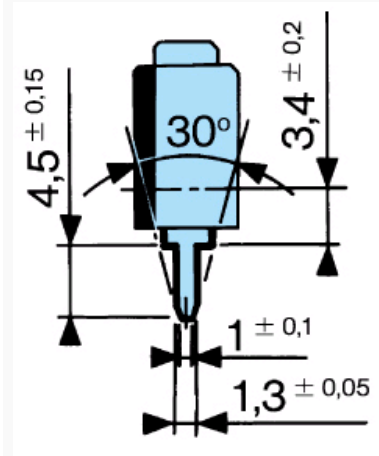
W7A5



Dimensions (mm)

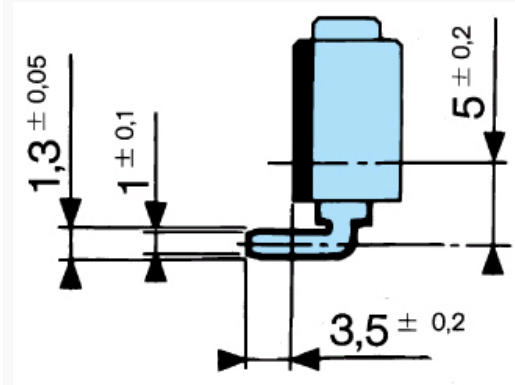
Connections

X1 - X1S



Dimensions (mm)

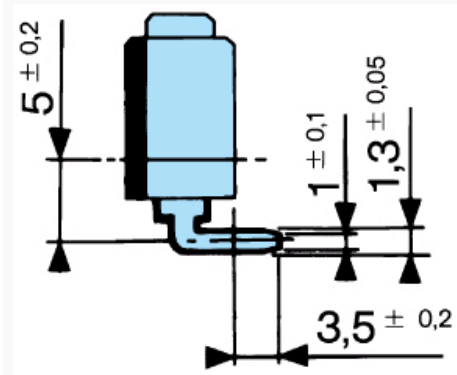
Connections



Dimensions (mm)

Connections

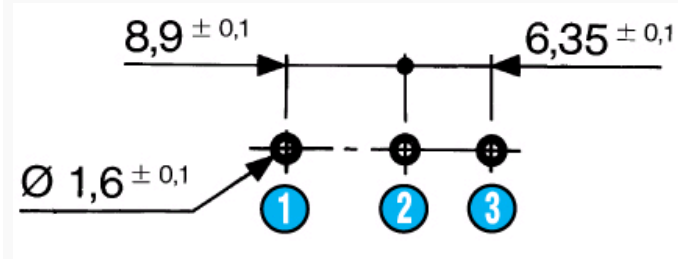
X3 - X3S



Dimensions (mm)

Drilling

Printed circuit board mounting  
Asymmetrical X1 - X2 - X3

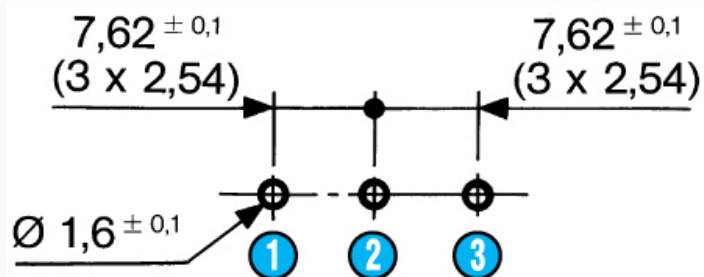


| N° | Legend |
|----|--------|
| 1  | 1.C    |
| 2  | 4.NO   |
| 3  | 2.NC   |

Dimensions (mm)

Drilling

Printed circuit board mounting  
Symmetrical X1S - X2S - X3S

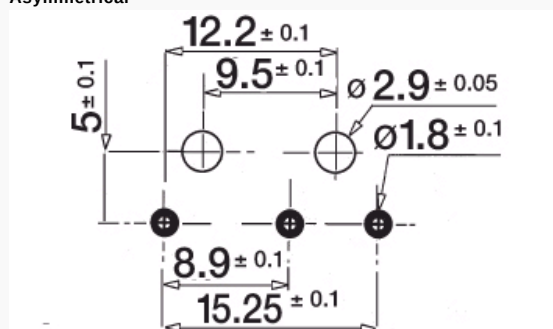


| N° | Legend |
|----|--------|
| 1  | 1.C    |
| 2  | 4.NO   |
| 3  | 2.NC   |

#### Dimensions (mm)

##### Drilling

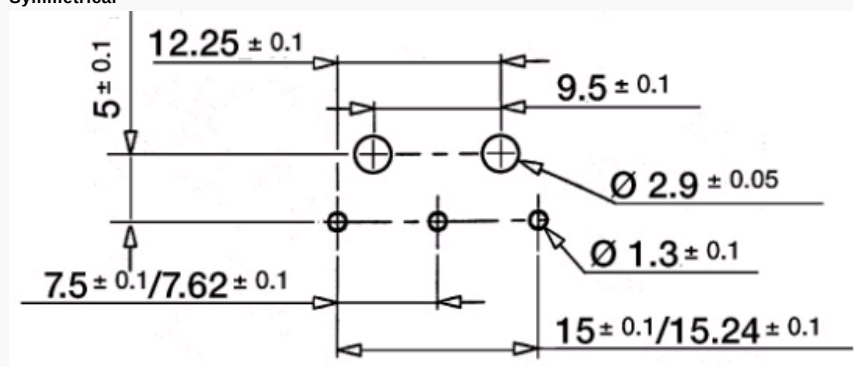
Mounting on a printed circuit board with fixing pins  
Asymmetrical



#### Dimensions (mm)

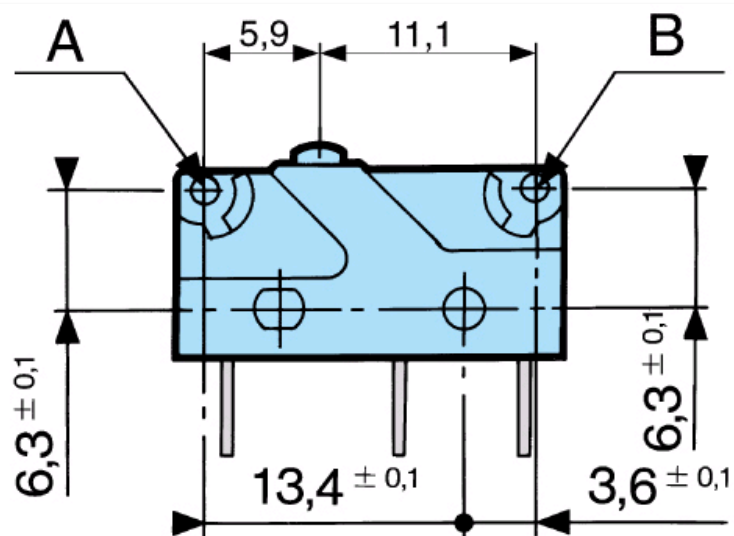
##### Drilling

Mounting on a printed circuit board with fixing pins  
Symmetrical



#### Dimensions (mm)

##### Actuator mounting positions

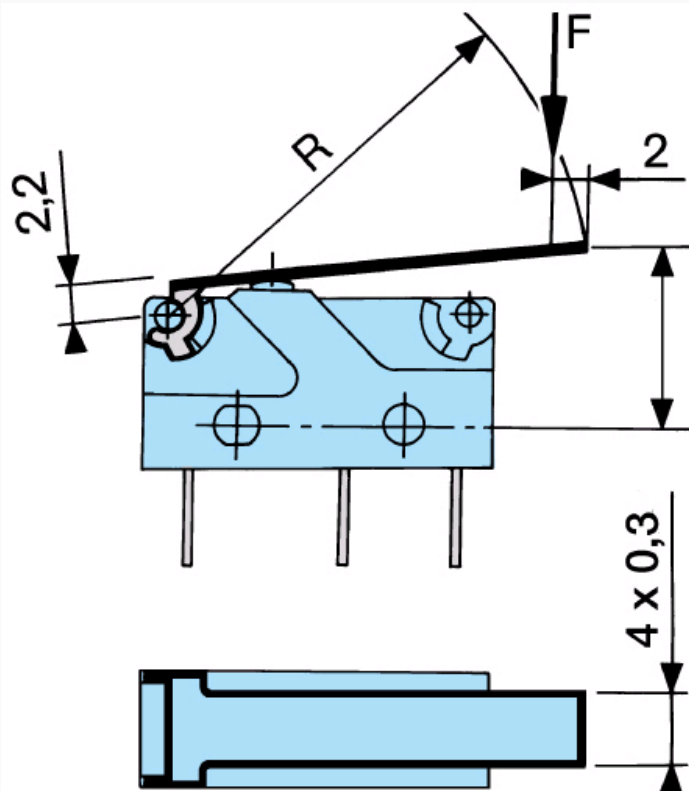


Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

#### Dimensions (mm)

##### Actuators

170A

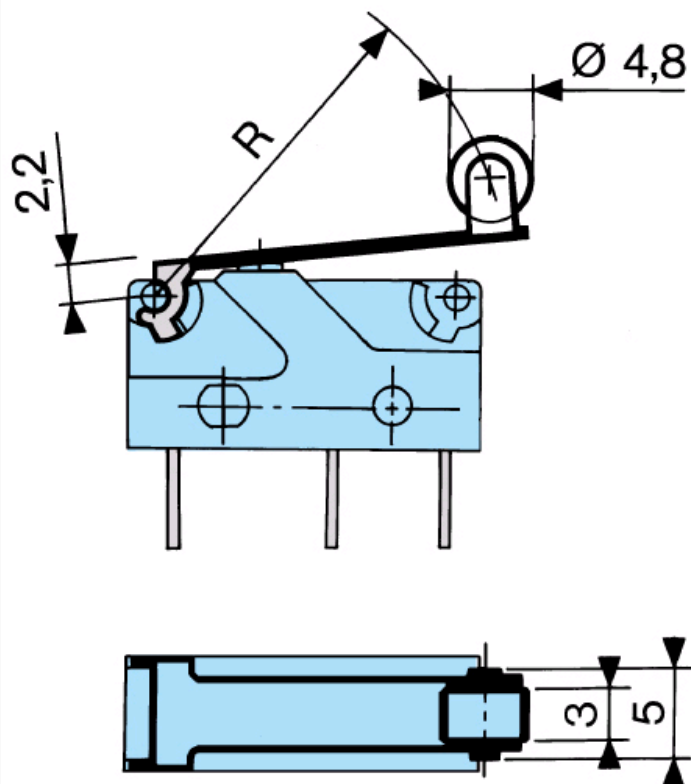


Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

#### Dimensions (mm)

##### Actuators

170E

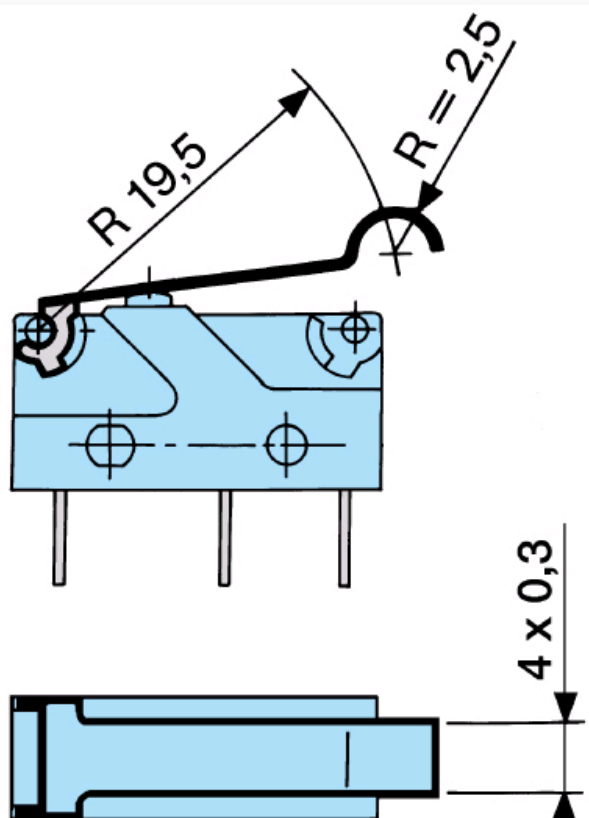


Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

#### Dimensions (mm)

#### Actuators

170F

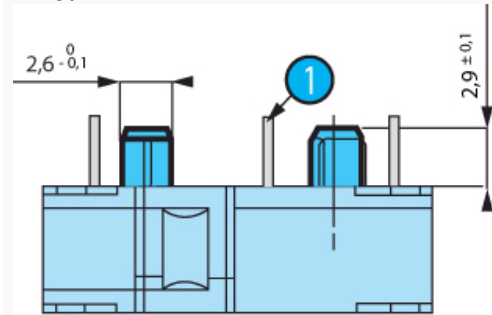


Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

Dimensions (mm)

Actuators

Fixing pins



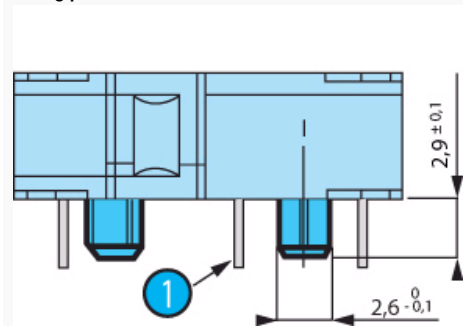
Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

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

Dimensions (mm)

Actuators

Fixing pins

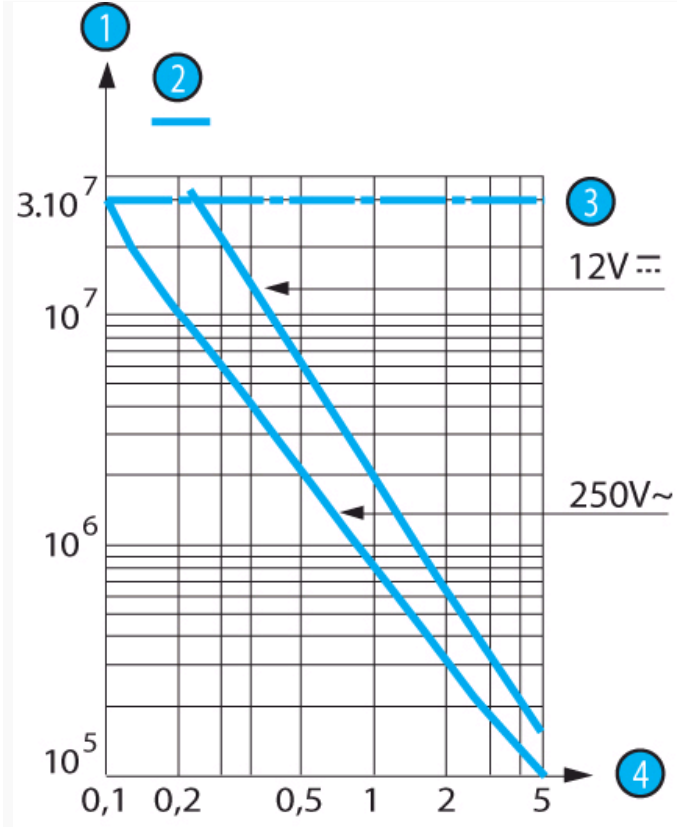


Fixing position Except where otherwise indicated, levers are supplied unmounted. For factory mounting, specify fixing position A or B. To calculate force : divide the switch force by the coefficient in the table. To calculate travel : multiply the switch travel by the same coefficient.

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

Curves

Operating curve for types 831708 / 831709



Models 831708 and 831709 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.

| N° | Legend                |
|----|-----------------------|
| ①  | Number of cycles      |
| ②  | Resistive circuit     |
| ③  | Mechanical life limit |
| ④  | 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                                                                                   | B                   | A                                                                                   | B                 | A                                                                                   | B                    | A                                                                                   | B                    | A                                                                                   | B                    |
| Tripping point                      |  | 3                                                                                   | 1.5                 | 4                                                                                   | 2                 | 7                                                                                   | 3.5                  | 3                                                                                   | 1.5                  | 3                                                                                   | 1.5                  |
|                                     |  | 10 <sup>+1.4</sup>                                                                  | 9.2 <sup>+0.9</sup> | 10.7 <sup>+1.7</sup>                                                                | 9.6 <sup>+1</sup> | 12.7 <sup>+1.5</sup>                                                                | 10.6 <sup>+1.8</sup> | 15.5 <sup>+1.6</sup>                                                                | 14.5 <sup>+0.9</sup> | 12.9 <sup>+1.3</sup>                                                                | 11.9 <sup>+0.3</sup> |
| Levers                              |  | Screw 170D                                                                          |                     | Transverse roller 170EL                                                             |                   |                                                                                     |                      |                                                                                     |                      |                                                                                     |                      |
|                                     |  |  |                     |  |                   |                                                                                     |                      |                                                                                     |                      |                                                                                     |                      |
|                                     |  | Characteristics available on request                                                |                     |                                                                                     |                   |                                                                                     |                      |                                                                                     |                      |                                                                                     |                      |

Other information

Mounting - Operation  
See basic technical concepts

Product adaptations

- Special levers
- Special connections