

## 83109 Outputs on front face 831090 Part number 83109004



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

### Part numbers

| Type                                  | Function       | Connections |
|---------------------------------------|----------------|-------------|
| 83109004 Outputs on front face 831090 | I (changeover) | W2          |

### Specifications

#### Electrical characteristics

|                              |      |
|------------------------------|------|
| Rating nominal / 250 VAC (A) | 5    |
| Rating thermal / 250 VAC (A) | 17,5 |

#### Mechanical characteristics

|                                     |                    |
|-------------------------------------|--------------------|
| Maximum operating force (N)         | 4                  |
| Min. Release force (N)              | 1                  |
| Operating position (mm)             | 11,45 + 0,2 - 0,25 |
| Min. overtravel (mm)                | 0,7                |
| Mechanical life (operations)        | 10 <sup>7</sup>    |
| Max. permitted overtravel force (N) | 20                 |
| Maximum rest position (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

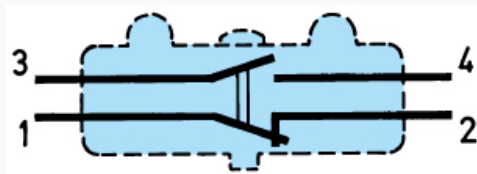
- Case : polyamide UL94V2
- Contacts : nickel silver

##### 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.

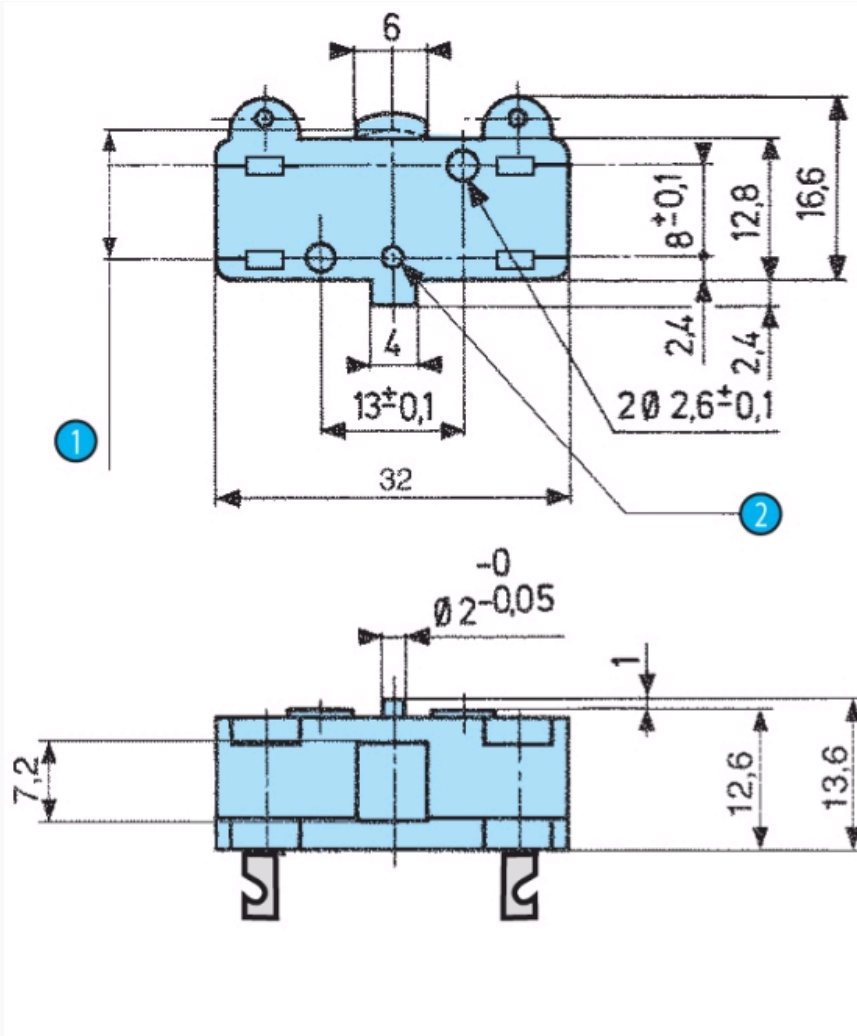
### Principles



### Dimensions (mm)

#### Product

83 109 0

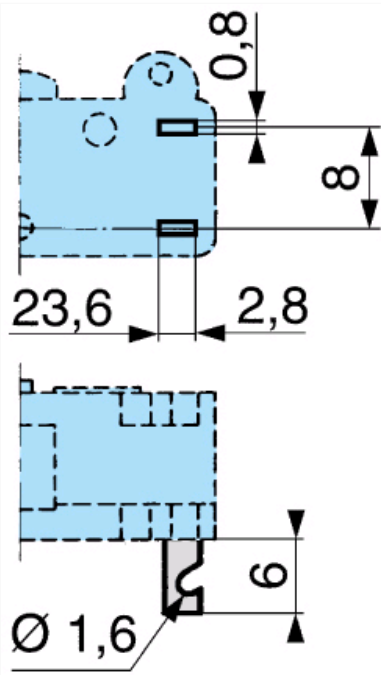


| N° | Legend                              |
|----|-------------------------------------|
| 1  | OL = 10.65                          |
| 2  | ∅ 2 <sup>+0.01+0.65</sup> Depth 1,2 |

#### Dimensions (mm)

#### Connections

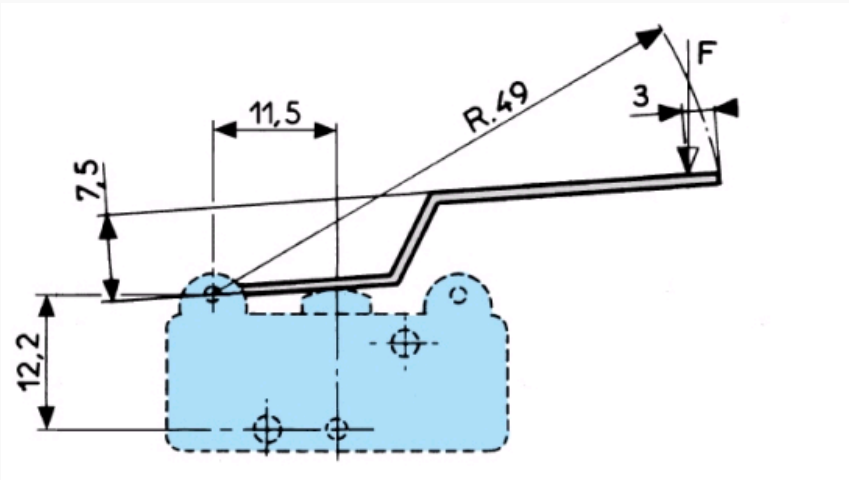
W2 solder



#### Dimensions (mm)

#### Actuators

A

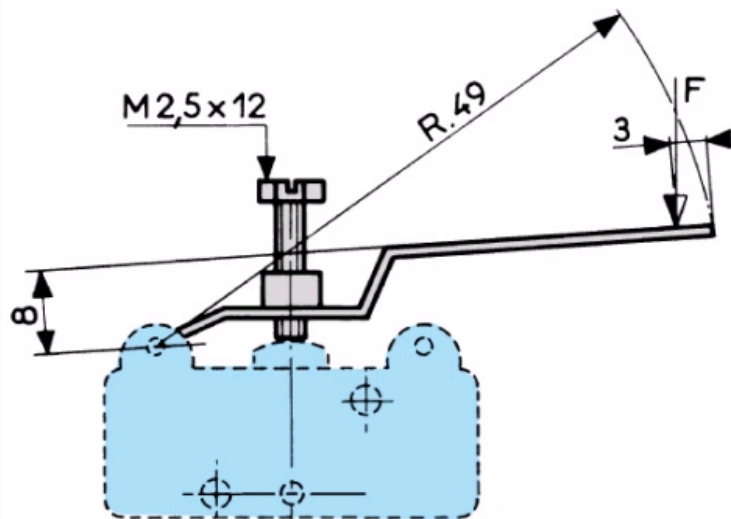


Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Actuators

B

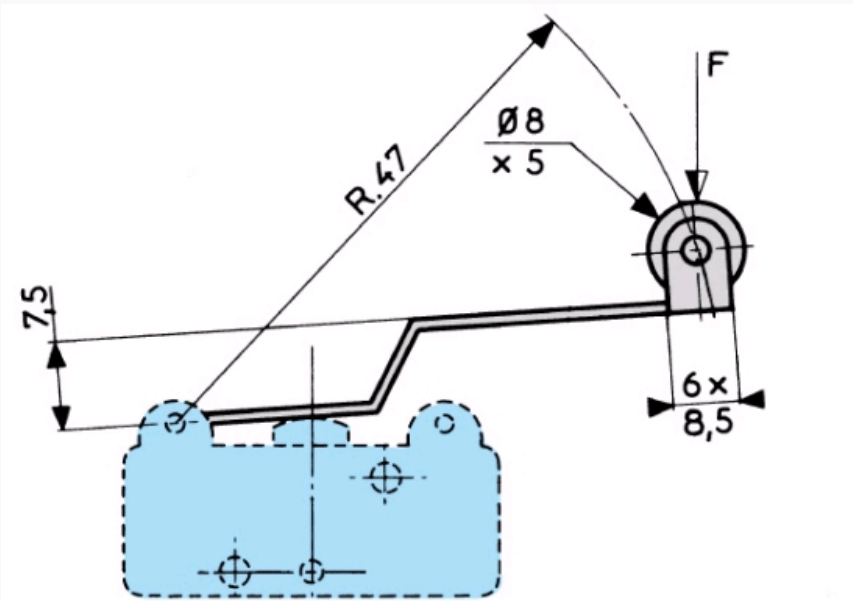


Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Actuators

E

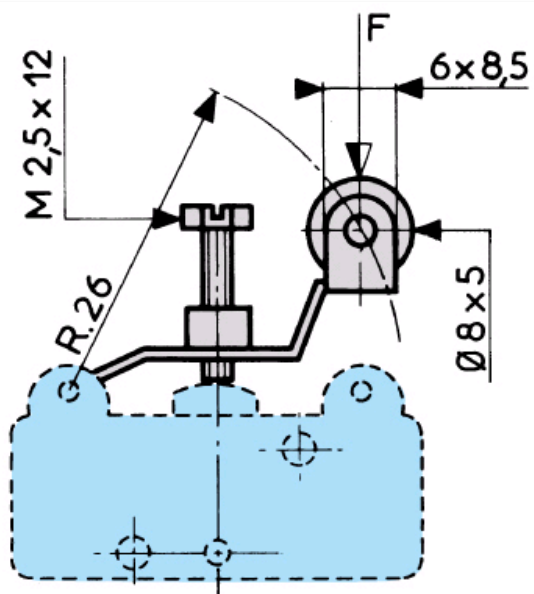


Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Actuators

q

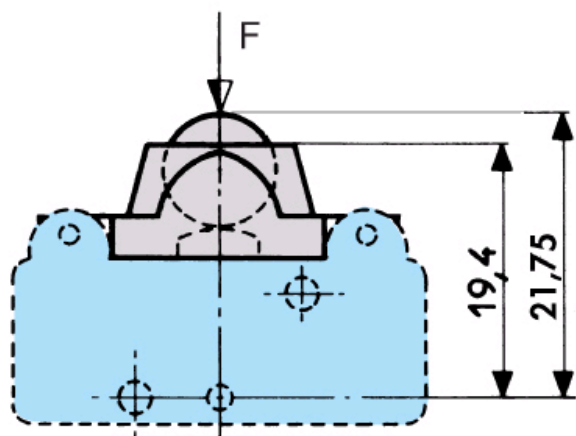


Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Actuators

B9

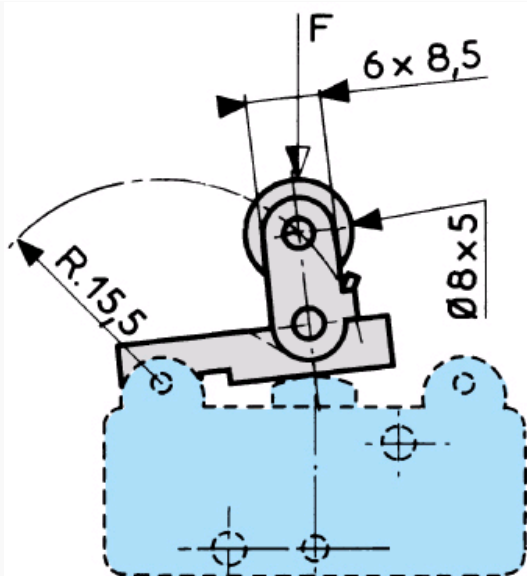


Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Actuators

V3



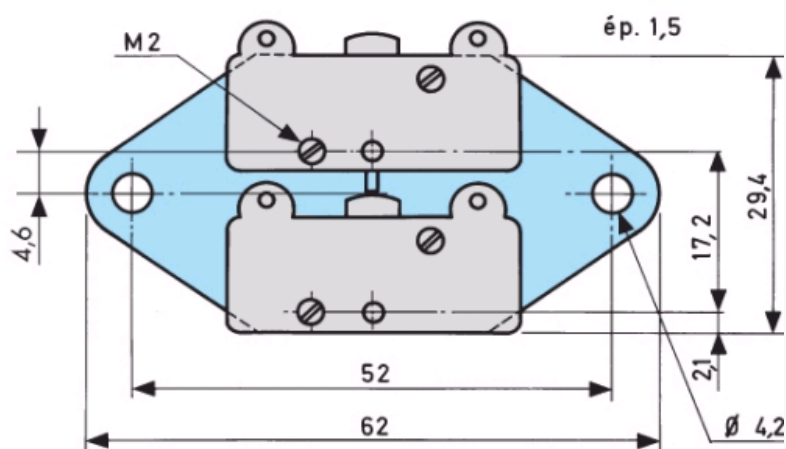
Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Mounting accessories

O2

2-pole side mounting plate



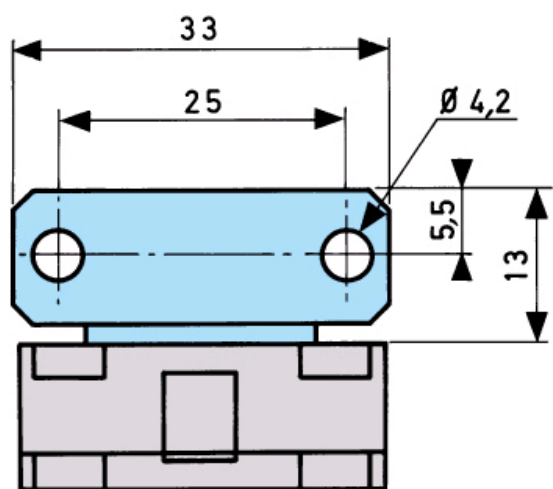
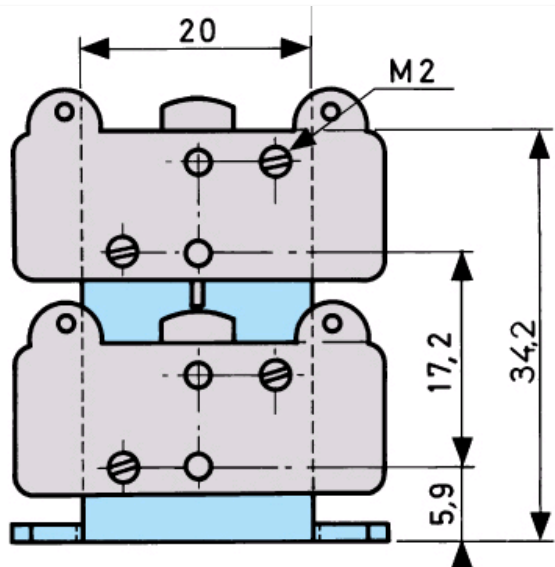
Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Mounting accessories

K2

2-pole vertical mounting plate

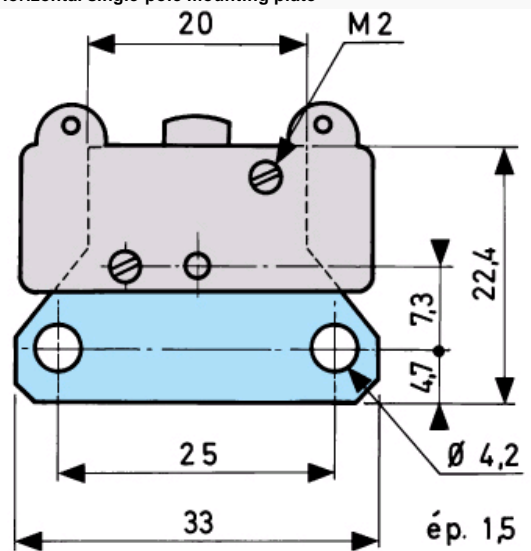


Lever cross-section 1 x 6.4 mm

#### Dimensions (mm)

#### Mounting accessories

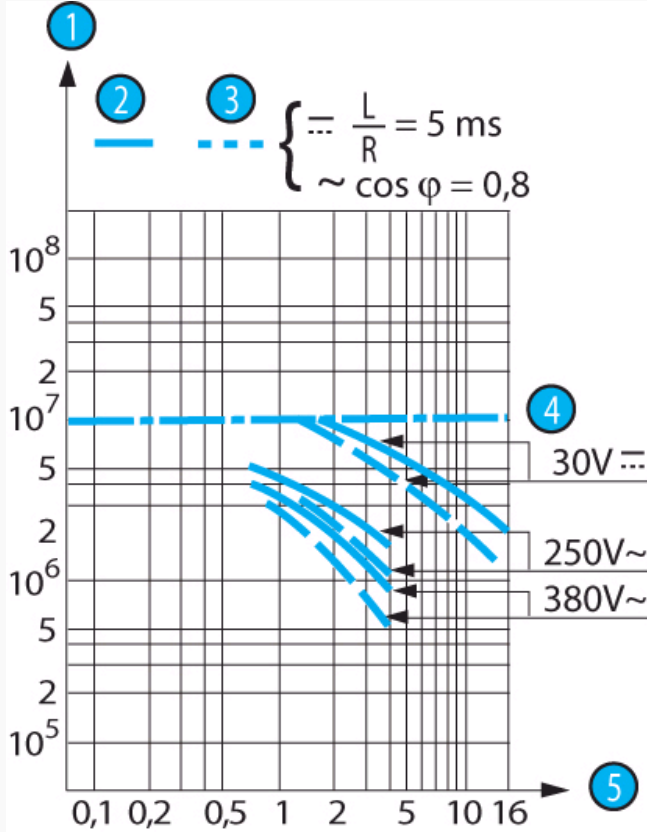
H  
Horizontal single-pole mounting plate



Unless indicated, the thickness of plates is 1.5 mm

Curves

Operating curve for type 83 109 0



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

Connections

Actuators and fixing positions

| Actuators and fixing positions |    | A R49               | B R47               | E R47               | Q                    | V3 R15,5            | B9                  |
|--------------------------------|----|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|
| Actuators                      |    |                     |                     |                     |                      |                     |                     |
| 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 <sup>±0.3</sup> | 2.1 <sup>±0.3</sup> | 2.1 <sup>±0.3</sup> | 1.05 <sup>±0.4</sup> | 0.5 <sup>±0.2</sup> | 0.5 <sup>±0.2</sup> |
| 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





**Other information****Mounting - Operation**

See basic technical concepts

**Product adaptations**

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