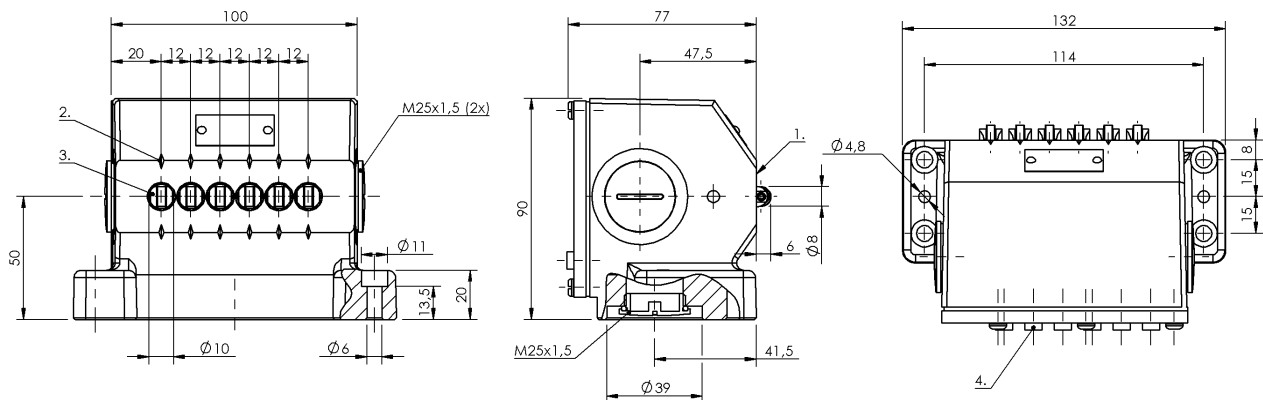


Mechanical Cam Switches  
BNS 813-B06-L12-72-22-06-FC  
Order Code: BNS023L

**BALLUFF**



1) Reference edge, 2) Mark. Safety switch position, 3) 1st pos., 4) Function Indicator FC

### Basic features

|                     |                                  |
|---------------------|----------------------------------|
| Approval/Conformity | CE<br>CCC<br>WEEE                |
| Basic standard      | IEC 60947-5-1                    |
| Operating principle | 1-6. Switch position: Mechanical |
| Version             | Safety EN 60204-1                |

### Display/Operation

|                    |                                     |
|--------------------|-------------------------------------|
| Function indicator | 1-6. Switch position: FC - 6...24 V |
|--------------------|-------------------------------------|

### Electrical connection

|                 |                                      |
|-----------------|--------------------------------------|
| Connection type | 1-6. Switch position: Screw terminal |
|-----------------|--------------------------------------|

### Electrical data

|                               |                                                                                                                                                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Continuous current            | 1-6. Switch position: 6 A                                                                                                                           |
| Rated operating voltage Ue    | 1-6. Switch position: 250 V AC                                                                                                                      |
| Switching function mechanical | NC forced-opening per VDE<br>Double-interrupting<br>Normally open with snap funct.<br>galvanically isolated<br>One NO and one NC<br>Dual changeover |
| Switching rate                | 1-6. Switch position: 160/min                                                                                                                       |

### Environmental conditions

|                     |            |
|---------------------|------------|
| Ambient temperature | -5...85 °C |
| IP rating           | IP67       |

### Functional safety

|                       |                                 |
|-----------------------|---------------------------------|
| B10d (EN ISO 13849-1) | BSE 85: 1 mil. switching cycles |
|-----------------------|---------------------------------|

### Material

|                                      |                                              |
|--------------------------------------|----------------------------------------------|
| Housing material                     | Aluminium, Anodized                          |
| Housing material, surface protection | Anodized                                     |
| Material contacts                    | 1-6. Switch position: Silver                 |
| Plunger material                     | 1-6. Switch position: 1.4034 stainless steel |

### Mechanical data

|                               |                                                   |
|-------------------------------|---------------------------------------------------|
| Approach direction            | Vertical to mounting surface                      |
| Approach speed                | 1-6. Switch position: 80 m/min                    |
| Distance cam - reference edge | 1-6. Switch position: 2.50...3.00 mm              |
| Flange, feed-through          | 1 threaded exit M25                               |
| Installation                  | Horizontal                                        |
| Life expectancy mechanical    | 1-6. Switch position: 1 mil. switching operations |
| Number of switching positions | 6x Roller bearing Mechanical                      |
| Plunger style                 | 1-6th switch position: Roller bearing             |
| Switch actuation force        | 1-6. Switch position: 30 N                        |
| Switching element             | 1-6. Switch position: BSE 85                      |

### Range/Distance

|                 |                                |
|-----------------|--------------------------------|
| Reproducibility | 1-6. Switch position: ±0.02 mm |
|-----------------|--------------------------------|

Wiring Diagrams

