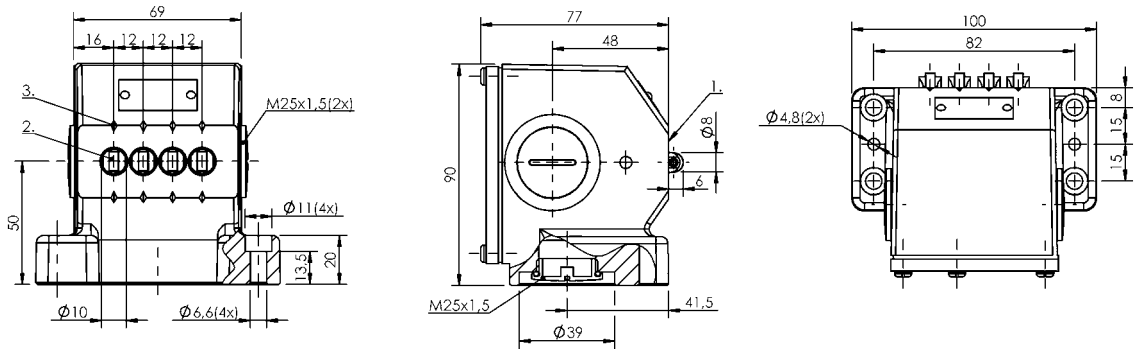
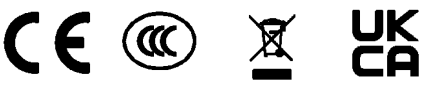


Mechanical Cam Switches  
BNS 813-B04-R12-72-22-04  
Order Code: BNS0238



1) Reference edge, 2) 1st pos., 3) Mark. Safety switch position



Basic features

|                     |                                  |
|---------------------|----------------------------------|
| Approval/Conformity | CE<br>UKCA<br>CCC<br>WEEE        |
| Basic standard      | IEC 60947-5-1                    |
| Operating principle | 1-4. Switch position: Mechanical |
| Version             | Safety EN 60204-1                |

Display/Operation

|                    |                            |
|--------------------|----------------------------|
| Function indicator | 1-4. Switch position: None |
|--------------------|----------------------------|

Electrical connection

|                 |                                      |
|-----------------|--------------------------------------|
| Connection type | 1-4. Switch position: Screw terminal |
|-----------------|--------------------------------------|

Electrical data

|                               |                                                                                                                                                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Continuous current            | 1-4. Switch position: 6 A                                                                                                                           |
| Rated operating voltage Ue    | 1-4. 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                | 1-4. 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                    | 1-4. Switch position: Silver                 |
| Plunger material                     | 1-4. Switch position: 1.4034 stainless steel |

Mechanical data

|                                     |                                                   |
|-------------------------------------|---------------------------------------------------|
| Approach direction                  | Vertical to mounting surface                      |
| Approach speed                      | 1-4. Switch position: 60 m/min                    |
| Dimension                           | 100 x 90 x 77 mm                                  |
| Distance cam - reference edge       | 1-4. Switch position: 2.50...3.00 mm              |
| Flange, feed-through                | 1 threaded exit M25                               |
| Installation                        | Horizontal                                        |
| Life expectancy mechanical          | 1-4. Switch position: 1 mil. switching operations |
| Number of switching positions       | 4x Roller Mechanical                              |
| Plunger spacing 1st switch position | 50 mm                                             |
| Plunger style                       | 1-4th switch position: Roller                     |
| Switch actuation force              | 1-4. Switch position: 30 N                        |
| Switching element                   | 1-4. Switch position: BSE 85                      |

Range/Distance

Reproducibility  
Switch position spacing

1-4. Switch position:  $\pm 0.02$  mm  
12 mm

Wiring Diagrams

BSE 85

