



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



**Basic features**

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

**Display/Operation**

|                           |                            |
|---------------------------|----------------------------|
| <b>Function indicator</b> | 1-4. Switch position: None |
|---------------------------|----------------------------|

**Electrical connection**

|                        |                                      |
|------------------------|--------------------------------------|
| <b>Connection type</b> | 1-4. Switch position: Screw terminal |
|------------------------|--------------------------------------|

**Electrical data**

|                                      |   |
|--------------------------------------|---|
| <b>Continuous current</b>            | 1-4. Switch position: 6 A   |
| <b>Rated operating voltage Ue</b>    | 1-4. Switch position: 250 V AC  |
| <b>Switching function mechanical</b> | 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 |
| <b>Switching rate</b>                | 1-4. Switch position: 160/min   |

**Environmental conditions**

|                            |            |
|----------------------------|------------|
| <b>Ambient temperature</b> | -5...85 °C |
| <b>IP rating</b>           | IP67       |

**Functional safety**

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

**Material**

|   |  |
|---|--|
| <b>Housing material</b>                     | Aluminium, Anodized                          |
| <b>Housing material, surface protection</b> | Anodized                                     |
| <b>Material contacts</b>                    | 1-4. Switch position: Silver                 |
| <b>Plunger material</b>                     | 1-4. Switch position: 1.4034 stainless steel |

**Mechanical data**

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

