



1) Reference edge



Basic features

|                     |                                  |
|---------------------|----------------------------------|
| Approval/Conformity | CE<br>CCC<br>CSA<br>WEEE         |
| Basic standard      | IEC 60947-5-1                    |
| Operating principle | 1-3. Switch position: Mechanical |
| Version             | Snap contact                     |

Display/Operation

|                    |                            |
|--------------------|----------------------------|
| Function indicator | 1-3. Switch position: None |
|--------------------|----------------------------|

Electrical connection

|                 |                                         |
|-----------------|-----------------------------------------|
| Connection type | 1-3. Switch position: Solder connection |
|-----------------|-----------------------------------------|

Electrical data

|                               |                                |
|-------------------------------|--------------------------------|
| Continuous current            | 1-3. Switch position: 0.1 A    |
| Rated operating voltage Ue    | 1-3. Switch position: 250 V AC |
| Switching function mechanical | Single-pin changeover          |
| Switching rate                | 1-3. Switch position: 200/min  |

Environmental conditions

|                     |            |
|---------------------|------------|
| Ambient temperature | -5...85 °C |
| Protection degree   | IP67       |

Functional safety

|                       |                                        |
|-----------------------|----------------------------------------|
| B10d (EN ISO 13849-1) | BSE 73.1: 10 mil. Switching operations |
|-----------------------|----------------------------------------|

Material

|                                      |                                                |
|--------------------------------------|------------------------------------------------|
| Housing material                     | Aluminum                                       |
| Housing material, surface protection | Anodized                                       |
| Material contacts                    | 1-3. Switch position: Gold                     |
| Plunger material                     | 1-3. Switch position: Stainless steel (1.4034) |

Mechanical Cam Switches  
**BNS 819-B03-008-40-55-1153**  
Order Code: BNS02Y7

**BALLUFF**

Mechanical data

|                               |                                                                                              |
|-------------------------------|----------------------------------------------------------------------------------------------|
| Approach direction            | longitudinal, parallel to attachment surface                                                 |
| Approach speed                | 1. Switch position: 60 m/min<br>2. Switch position: 20 m/min<br>3. Switch position: 60 m/min |
| Dimension                     | 40 x 42 x 48 mm                                                                              |
| Distance cam - reference edge | 1-3. Switch position: 2.30...2.80 mm                                                         |
| Flange, feed-through          | None                                                                                         |
| Installation                  | parallel                                                                                     |
| Life expectancy mechanical    | 1-3. Switch position: 10 million Switching operations                                        |
| Number of switching positions | 3x Roller                                                                                    |

|                                     |                                                                                                                                                                                        |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Plunger spacing 1st switch position | 13 mm                                                                                                                                                                                  |
| Plunger style                       | 1st switch position: Roller<br>2nd switch position: Chisel<br>3rd switch position: Roller<br>1st switch position: Roller<br>2nd switch position: Chisel<br>3rd switch position: Roller |
| Switch actuation force              | 1-3. Switch position: 8 N                                                                                                                                                              |
| Switching element                   | 1-3. Switch position: BSE 73.1                                                                                                                                                         |

Range/Distance

|                         |                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------|
| Reproducibility         | 1. Switch position: $\pm 0.05$ mm<br>2. Switch position: $\pm 0.02$ mm<br>3. Switch position: $\pm 0.05$ mm |
| Switch position spacing | 8 mm                                                                                                        |

Wiring Diagrams

