



1) Reference edge, 2) Sealing ring, 3) Sensing surface



### Basic features

Approval/Conformity	CE WEEE
Basic standard	IEC 60947-5-1 IEC 60947-5-2
Operating principle	1. Switch position: Inductive 2-3. Switch position: Mechanical
Version	Snap contact

### Display/Operation

Function indicator	1. Switch position: Optical fiber 2-3. Switch position: None
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### Electrical connection

Connection type	1-3. Switch position: Screw terminal
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### Electrical data

Continuous current	1. Switch position: 0.13 A 2-3. Switch position: 5 A
Rated operating voltage Ue	1. Switch position: 24 V DC
Switching function mechanical	Single-pin changeover
Switching rate	2-3. Switch position: 200/min

### Environmental conditions

Ambient temperature	-5...70 °C
IP rating	IP67

### Functional safety

B10d (EN ISO 13849-1)	BSE 70.1: 10 mil. switching cycles
MTTF (40 °C)	BES 517-312-Y: 1620 a

### Material

Housing material	Aluminium, Anodized
Housing material, surface protection	Anodized
Material contacts	2-3. Switch position: Fine silver
Plunger material	2-3. Switch position: 1.4034 stainless steel

### Mechanical data

Approach direction	longitudinal, parallel to attachment surface
Approach speed	2-3. Switch position: 20 m/min
Dimension	72 x 59 x 59.5 mm
Distance cam - reference edge	2-3. Switch position: 2.30...2.80 mm
Flange, feed-through	1 threaded exit M16
Installation	parallel
Life expectancy mechanical	2-3. Switch position: 10 mil. switching operations
Plunger spacing 1st switch position	26 mm
Plunger style	2-3rd switch position: Chisel 2-3rd switch position: Chisel
Switch actuation force	2-3. Switch position: 8 N
Switching element	1. Switch position: BES 517-312-Y 2-3. Switch position: BSE 70.1

Mechanical Cam Switches  
**BNS 819-B03-D08-46-55-0799**  
**Order Code: BNS01T9**

**BALLUFF**

**Range/Distance**

Assured operating distance  $S_a$  1. Switch position: 0.9 mm  
 Range 1.1 mm

Rated operating distance  $S_n$

Reproducibility

Switch position spacing

1. Switch position: 1.1 mm  
 2-3. Switch position:  $\pm 0.02$  mm  
 8 mm

**Wiring Diagrams**

