

1) Reference edge



## Basic features

<b>Additional features</b>	Special switch Special wiring
<b>Approval/Conformity</b>	CE UKCA CCC WEEE
<b>Basic standard</b>	IEC 60947-5-1
<b>DIN switch</b>	DIN 43693
<b>Operating principle</b>	1. Switch position: Mechanical
<b>Version</b>	Snap contact

## Display/Operation

<b>Function indicator</b>	1. Switch position: None
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## Electrical connection

<b>Connection</b>	M12x1-Flange male, 5-pin
<b>Connection type</b>	1. Switch position: Connector

## Electrical data

<b>Continuous current</b>	1. Switch position: 4 A
<b>Rated operating voltage U<sub>e</sub></b>	1. Switch position: 250 V AC
<b>Switching function mechanical</b>	Double-interrupting galvanically isolated One NO and one NC Dual changeover
<b>Switching rate</b>	1. Switch position: 300/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 30.0: 30 mil. switching cycles
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## Material

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

## Mechanical data

<b>Approach direction</b>	lateral or at right angles to mounting surface
<b>Approach speed</b>	1. Switch position: 40 m/min
<b>Distance cam - reference edge</b>	1. Switch position: 4.50...5.00 mm
<b>Flange, feed-through</b>	None
<b>Installation</b>	any
<b>Life expectancy mechanical</b>	1. Switch position: 30 mil. switching operations
<b>Number of switching positions</b>	Chisel Mechanical
<b>Plunger style</b>	1st switch position: Chisel
<b>Switch actuation force</b>	1. Switch position: 20 N
<b>Switching element</b>	1. Switch position: BSE 30.0

Mechanical Cam Switches  
**BNS 819-X551-FD-60-101-S80R**  
Order Code: **BNS0093**

**BALLUFF**

Range/Distance

Reproducibility

1. Switch position:  $\pm 0.002$  mm

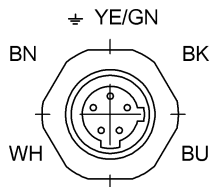
Remarks

Connection / pin assignments determined by customer. Does not correspond to a known technical standard.

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values do not extend the limitation period for claims arising from defects or influence them in any other way.

We call you attention to the fact that the product listed here alone are not considered safety components according to Machine Directive 2006/42/EC Article 2c. It is however possible to construct structures per EN 13849-1 having a high performance level using the products with two channels.

Connector Drawings



View of connector side

Wiring Diagrams

