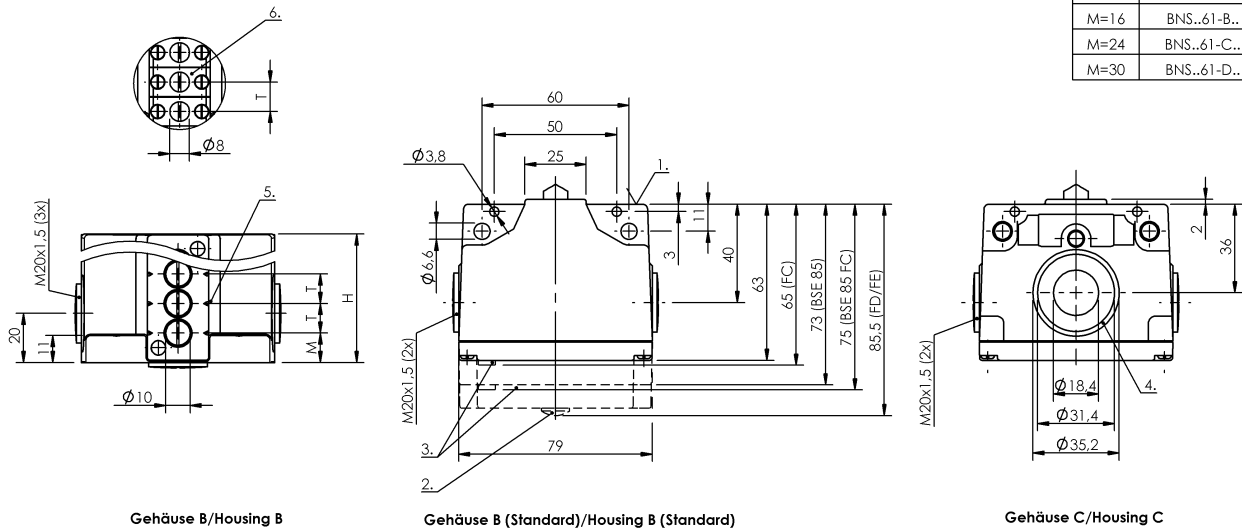


Mechanical Cam Switches  
**BNS 813-B05-D12-61-A-10-02**  
 Order Code: BNS02N0

**BALLUFF**

M=12	BNS..61-A..
M=16	BNS..61-B..
M=24	BNS..61-C..
M=30	BNS..61-D..



Gehäuse B/Housing B

Gehäuse B (Standard)/Housing B (Standard)

Gehäuse C/Housing C

1) Reference edge, 2) Function indicator FD/FE/LL, 3) Function indicator FC, 4) Sealing ring, 5) Mark. Safety switch position, 6) Anti-crystallization plunger



**Basic features**

Approval/Conformity	CE
Basic standard	IEC 60947-5-1
Operating principle	1-5. Switch position: Mechanical
Version	Safety EN 60204-1

**Display/Operation**

Function indicator	1-5. Switch position: None
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**Electrical connection**

Connection type	1-5. Switch position: Screw terminal
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**Electrical data**

Continuous current	1-5. Switch position: 6 A
Rated operating voltage Ue	1-5. Switch position: 250 V AC
Switching rate	1-5. Switch position: 300/min

**Environmental conditions**

Ambient temperature	-5...85 °C
IP rating	IP67

**Functional safety**

B10d (EN ISO 13849-1)	BSE 30.0: 30 mil. Switching operations BSE 61: 30 mil. Switching operations
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**Material**

Housing material	Aluminum, Anodized
Housing material, surface protection	Anodized
Material contacts	1-2. Switch position: Silver 3-5. Switch position: Silver, gold plated
Plunger material	1-5. Switch position: Stainless steel (1.4034)

**Mechanical data**

Approach direction	longitudinal, parallel to attachment surface
Approach speed	1-5. Switch position: 40 m/min
Dimension	79 x 72 x 63 mm
Distance cam - reference edge	1-5. Switch position: 4.50...5.00 mm
Flange, feed-through	None
Installation	Vertical
Life expectancy mechanical	1-5. Switch position: 30 million Switching operations
Number of switching positions	5x Chisel
Plunger spacing 1st switch position	12 mm
Plunger style	1-5. switch position: Chisel 1-5. switch position: Chisel
Switch actuation force	1-2. Switch position: 15 N 3-5. Switch position: 20 N
Switching element	1-2. Switch position: BSE 61 3-5. Switch position: BSE 30.0

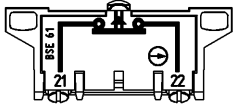
Range/Distance

Reproducibility  
Switch position spacing

1-5. Switch position:  $\pm 0.002$  mm  
12 mm

## Wiring Diagrams

BSE 61



BSE 30.0

