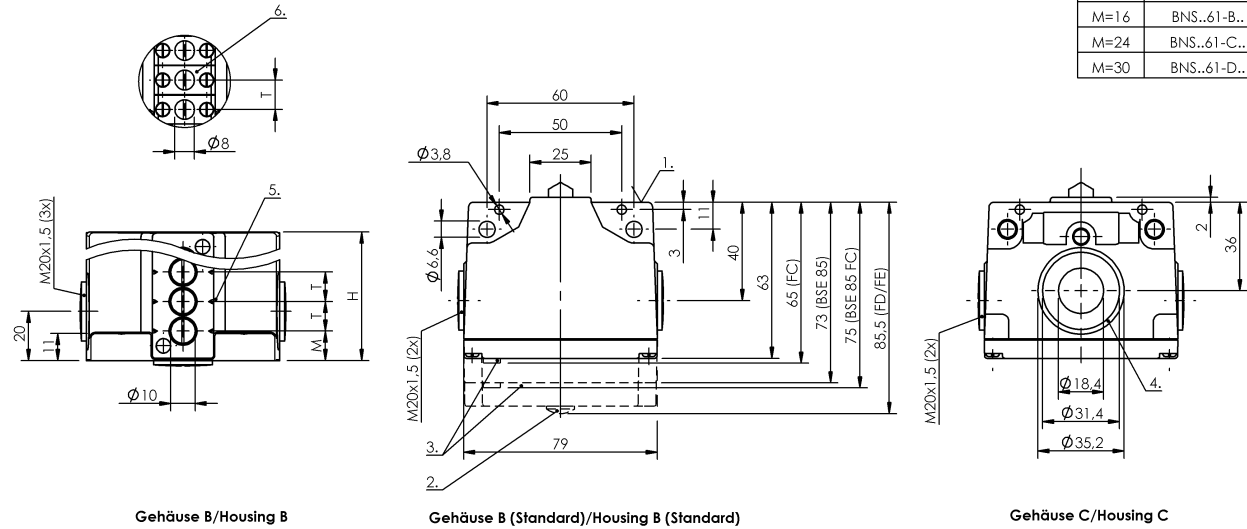


Mechanical Cam Switches
BNS 813-B03-D12-61-A-20-02
Order Code: BNS02HN

BALLUFF

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



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 WEEE
Basic standard	IEC 60947-5-1
Operating principle	1-3. Switch position: Mechanical
Version	Safety EN 60204-1

Display/Operation

Function indicator	1-3. 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	1-3. Switch position: 6 A
Rated operating voltage Ue	1-3. Switch position: 250 V AC
Switching rate	1-2. Switch position: 160/min 3. 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 cycles BSE 85: 1 mil. switching cycles
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Material

Housing material	Aluminium, Anodized
Housing material, surface protection	Anodized
Material contacts	1-2. Switch position: Fine silver 3. Switch position: Silver, gold plated
Plunger material	1-3. Switch position: 1.4034 stainless steel

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Mechanical data

Approach direction	longitudinal, parallel to attachment surface
Approach speed	1-2. Switch position: 12 m/min 3. Switch position: 40 m/min
Dimension	79 x 48 x 73 mm
Distance cam - reference edge	1-3. Switch position: 4.50...5.00 mm
Flange, feed-through	None
Installation	Vertical
Life expectancy mechanical	1-2. Switch position: 1 mil. switching operations 3. Switch position: 30 mil. switching operations

Number of switching positions	3x Chisel Mechanical
Plunger spacing 1st switch position	12 mm
Plunger style	1-3rd switch position: Chisel 1-3rd switch position: Chisel
Switch actuation force	1-2. Switch position: 30 N 3. Switch position: 20 N
Switching element	1-2. Switch position: BSE 85 3. Switch position: BSE 30.0

Range/Distance

Reproducibility	1-2. Switch position: ± 0.02 mm 3. Switch position: ± 0.002 mm
Switch position spacing	12 mm

Wiring Diagrams

