

1) Reference edge, 2) Sealing ring, 3) Function indicator FD/FE/LL, 4) Sensing surface, 5) Mark. Safety switch position, 6) Cable passage



**Basic features**

<b>Approval/Conformity</b>	CE UKCA WEEE
<b>Basic standard</b>	IEC 60947-5-1 IEC 60947-5-2
<b>DIN switch</b>	DIN 43697
<b>Operating principle</b>	1-3. Switch position: Mechanical 4. Switch position: Inductive
<b>Version</b>	Safety EN 60204-1

**Display/Operation**

<b>Function indicator</b>	1-3. Switch position: None 4. Switch position: Optical fiber
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**Electrical connection**

<b>Connection type</b>	1-4. Switch position: Screw terminal
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**Electrical data**

<b>Continuous current</b>	1-3. Switch position: 6 A 4. Switch position: 0.2 A
<b>Rated operating voltage Ue</b>	1-3. Switch position: 250 V AC 4. Switch position: 24 V DC
<b>Switching function mechanical</b>	Dual changeover One NO and one NC galvanically isolated Normally open with snap funct. Double-interrupting NC forced-opening per VDE
<b>Switching rate</b>	1-3. Switch position: 160/min

**Environmental conditions**

<b>Ambient temperature</b>	-5...70 °C
<b>IP rating</b>	IP67

**Functional safety**

<b>B10d (EN ISO 13849-1)</b>	BSE 85: 1 mil. switching cycles
<b>MTTF (40 °C)</b>	BES 517-110: 490 a

**Material**

<b>Housing material</b>	Aluminium, Anodized
<b>Housing material, surface protection</b>	Anodized
<b>Material contacts</b>	1-3. Switch position: Fine silver
<b>Plunger material</b>	1-3. Switch position: 1.4034 stainless steel

**Mechanical Cam Switches**  
**BNS 813-D04-L16-100-55-0949**  
**Order Code: BNS0105**



**Mechanical data**

<b>Approach direction</b>	longitudinal, parallel to attachment surface
<b>Approach speed</b>	1-3. Switch position: 80 m/min
<b>Dimension</b>	120 x 105 x 87 mm
<b>Distance cam - reference edge</b>	1-3. Switch position: 4.50...5.00 mm
<b>Flange, feed-through</b>	2 threaded exit M25
<b>Installation</b>	Vertical
<b>Life expectancy mechanical</b>	1-3. Switch position: 1 mil. switching operations
<b>Number of switching positions</b>	3x Roller bearing Mechanical + Inductive

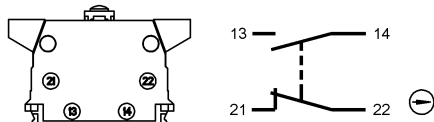
<b>Plunger spacing 1st switch position</b>	30 mm
<b>Plunger style</b>	1-3rd switch position: Roller bearing
<b>Switch actuation force</b>	1-3. Switch position: 30 N
<b>Switching element</b>	1-3. Switch position: BSE 85 4. Switch position: BES 517-110

**Range/Distance**

<b>Assured operating distance Sa</b>	4. Switch position: 1.6 mm
<b>Rated operating distance Sn</b>	4. Switch position: 2.0 mm
<b>Reproducibility</b>	1-3. Switch position: ±0.02 mm
<b>Switch position spacing</b>	16 mm

**Wiring Diagrams**

BSE 85



PA

