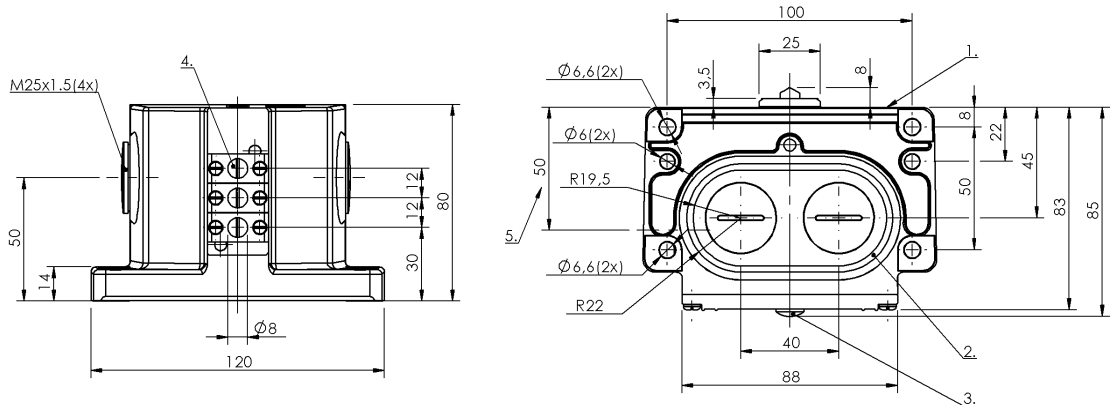


Mechanical Cam Switches  
BNS 819-D03-E12-100-10-FD  
Order Code: BNS00E8

**BALLUFF**



1) Reference edge, 2) Sealing ring, 3) Function indicator FD/FE/LL, 4) Anti-crystallization plunger, 5) Cable passage



#### Basic features

|                     |                                  |
|---------------------|----------------------------------|
| Approval/Conformity | CE<br>UKCA<br>CCC<br>WEEE        |
| Basic standard      | IEC 60947-5-1                    |
| DIN switch          | DIN 43697                        |
| Operating principle | 1-3. Switch position: Mechanical |
| Version             | Snap contact                     |

#### Display/Operation

|                    |                                     |
|--------------------|-------------------------------------|
| Function indicator | 1-3. Switch position: FD - 6...60 V |
|--------------------|-------------------------------------|

#### Electrical connection

|                 |                                      |
|-----------------|--------------------------------------|
| Connection type | 1-3. Switch position: Screw terminal |
|-----------------|--------------------------------------|

#### Electrical data

|                               |                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------|
| Continuous current            | 1-3. Switch position: 6 A                                                            |
| Rated operating voltage Ue    | 1-3. Switch position: 250 V AC                                                       |
| Switching function mechanical | galvanically isolated<br>One NO and one NC<br>Dual changeover<br>Double-interrupting |
| Switching rate                | 1-3. 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 |
|-----------------------|------------------------------------|

#### Material

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

#### Mechanical data

|                                     |                                                    |
|-------------------------------------|----------------------------------------------------|
| Approach direction                  | longitudinal, parallel to attachment surface       |
| Approach speed                      | 1-3. Switch position: 30 m/min                     |
| Dimension                           | 120 x 80 x 85 mm                                   |
| Distance cam - reference edge       | 1-3. Switch position: 4.50...5.00 mm               |
| Flange, feed-through                | 2 threaded exit M25                                |
| Installation                        | Vertical                                           |
| Life expectancy mechanical          | 1-3. Switch position: 30 mil. switching operations |
| Number of switching positions       | 3x E-chisel Mechanical                             |
| Plunger spacing 1st switch position | 30 mm                                              |
| Plunger style                       | 1-3rd switch position: E-chisel                    |
| Switch actuation force              | 1-3. Switch position: 20 N                         |
| Switching element                   | 1-3. Switch position: BSE 30.0                     |

Range/Distance

Reproducibility  
Switch position spacing

1-3. Switch position:  $\pm 0.002$  mm  
12 mm

Wiring Diagrams

BSE 30.0

