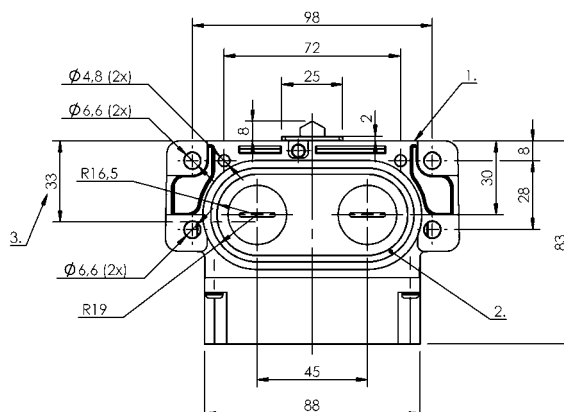
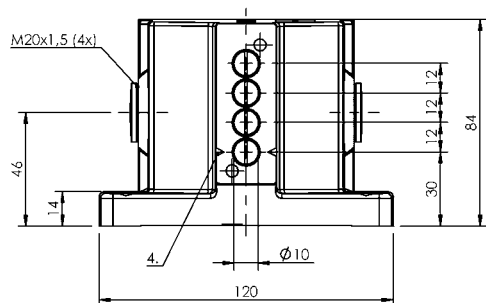




1) Reference edge, 2) Sealing ring, 3) Cable passage, 4) Mark. Safety switch position



## Basic features

|                     |                                  |
|---------------------|----------------------------------|
| Approval/Conformity | CE<br>UKCA<br>CCC<br>WEEE        |
| Basic standard      | IEC 60947-5-1                    |
| Operating principle | 1-4. Switch position: Mechanical |
| Version             | Safety EN 60204-1                |

## Display/Operation

Function indicator 1-4. Switch position: None

## Electrical connection

Connection type 1-4. Switch position: Screw terminal

## Electrical data

|                            |                                                              |
|----------------------------|--------------------------------------------------------------|
| Continuous current         | 1-4. Switch position: 6 A                                    |
| Rated operating voltage Ue | 1-4. Switch position: 250 V AC                               |
| Switching rate             | 1. Switch position: 160/min<br>2-4. 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<br>BSE 85: 1 mil. switching cycles |
|-----------------------|-----------------------------------------------------------------------|

## Material

|                                             |                                                                         |
|---------------------------------------------|-------------------------------------------------------------------------|
| <b>Housing material</b>                     | Aluminium, Anodized                                                     |
| <b>Housing material, surface protection</b> | Anodized                                                                |
| <b>Material contacts</b>                    | 1. Switch position: Silver<br>2-4. Switch position: Silver, gold plated |
| <b>Plunger material</b>                     | 1-4. Switch position: 1.4034 stainless steel                            |

Mechanical Cam Switches  
BNS 813-D04-D12-62-20-01  
Order Code: BNS01CW

**BALLUFF**

Mechanical data

|                               |                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------|
| Approach direction            | longitudinal, parallel to attachment surface                                                          |
| Approach speed                | 1-4. Switch position: 40 m/min                                                                        |
| Distance cam - reference edge | 1-4. Switch position: 4.50...5.00 mm                                                                  |
| Flange, feed-through          | 2 threaded exit M20                                                                                   |
| Installation                  | Vertical                                                                                              |
| Life expectancy mechanical    | 1. Switch position: 1 mil. switching operations<br>2-4. Switch position: 30 mil. switching operations |

|                               |                                                              |
|-------------------------------|--------------------------------------------------------------|
| Number of switching positions | 4x Chisel Mechanical                                         |
| Plunger style                 | 1-4th switch position: Chisel                                |
| Switch actuation force        | 1. Switch position: 30 N<br>2-4. Switch position: 20 N       |
| Switching element             | 1. Switch position: BSE 85<br>2-4. Switch position: BSE 30.0 |

Range/Distance

|                 |                                                                           |
|-----------------|---------------------------------------------------------------------------|
| Reproducibility | 1. Switch position: $\pm 0.02$ mm<br>2-4. Switch position: $\pm 0.002$ mm |
|-----------------|---------------------------------------------------------------------------|

Wiring Diagrams

