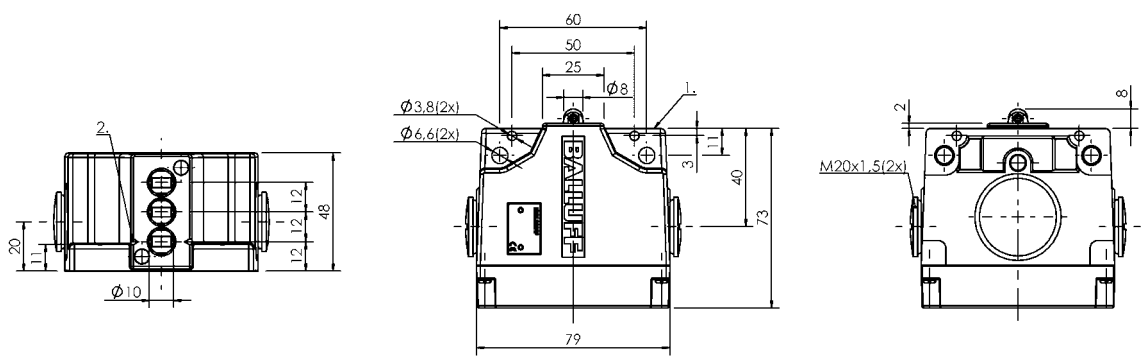
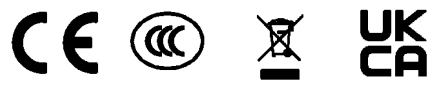


Mechanical Cam Switches  
BNS 813-B03-R12-61-A-20-01  
Order Code: BNS02K6



1) Reference edge, 2) Mark. Safety switch position



Basic features

|                     |                                  |
|---------------------|----------------------------------|
| Approval/Conformity | CE<br>UKCA<br>CCC<br>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 |
|--------------------|----------------------------|

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 rate             | 1. Switch position: 160/min<br>2-3. 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<br>BSE 85: 1 mil. switching cycles |
|-----------------------|-----------------------------------------------------------------------|

Material

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

Mechanical Cam Switches  
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**BALLUFF**

Mechanical data

|                               |                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------|
| Approach direction            | longitudinal, parallel to attachment surface                                                          |
| Approach speed                | 1-3. Switch position: 60 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. Switch position: 1 mil. switching operations<br>2-3. Switch position: 30 mil. switching operations |

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

Range/Distance

|                         |                                                                          |
|-------------------------|--------------------------------------------------------------------------|
| Reproducibility         | 1. Switch position: $\pm 0.02$ mm<br>2-3. Switch position: $\pm 0.01$ mm |
| Switch position spacing | 12 mm                                                                    |

Wiring Diagrams

