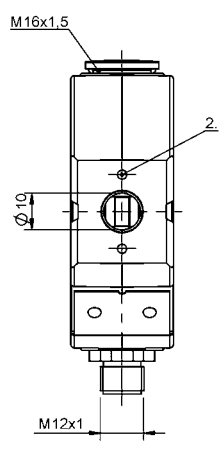
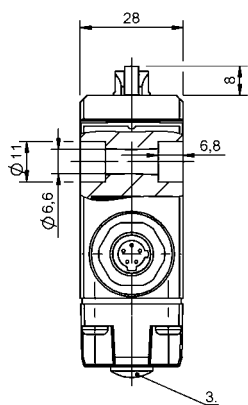
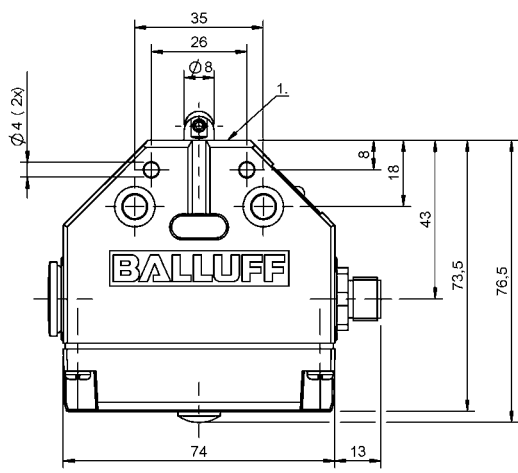
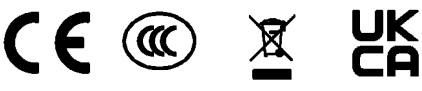


Mechanical Cam Switches  
BNS 813-FR-60-183-FD-S80R  
Order Code: BNS002U



1) Reference edge, 2) Mark. Safety switch position, 3) Function indicator FD/FE/LL



Basic features

|                     |                                |
|---------------------|--------------------------------|
| DIN switch          | DIN 43693                      |
| Operating principle | 1. Switch position: Mechanical |
| Version             | Safety EN 60204-1              |

Display/Operation

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

Electrical connection

|                 |                               |
|-----------------|-------------------------------|
| Connection      | M12x1-Flange male, 5-pin      |
| Connection type | 1. Switch position: Connector |

Electrical data

|                            |                              |
|----------------------------|------------------------------|
| Continuous current         | 1. Switch position: 4 A      |
| Rated operating voltage Ue | 1. Switch position: 6...60 V |
| Switching rate             | 1. Switch position: 300/min  |

Environmental conditions

|                     |            |
|---------------------|------------|
| Ambient temperature | -5...85 °C |
| IP rating           | IP67       |

Material

|                                      |                                            |
|--------------------------------------|--------------------------------------------|
| Housing material                     | Aluminium, Anodized                        |
| Housing material, surface protection | Anodized                                   |
| Material contacts                    | 1. Switch position: Fine silver            |
| Plunger material                     | 1. Switch position: 1.4034 stainless steel |

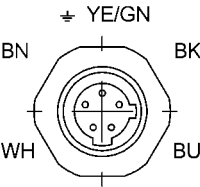
Mechanical data

|                                     |                                                            |
|-------------------------------------|------------------------------------------------------------|
| Approach direction                  | longitudinal, parallel to attachment surface               |
| Approach speed                      | 1. Switch position: 60 m/min                               |
| Dimension                           | 74 x 28 x 76.5 mm                                          |
| Distance cam - reference edge       | 1. Switch position: 4.50...5.00 mm                         |
| Flange, feed-through                | None                                                       |
| Installation                        | any                                                        |
| Life expectancy mechanical          | 1. Switch position: 30 mil. switching operations           |
| Number of switching positions       | Roller Mechanical                                          |
| Plunger spacing 1st switch position | 14 mm                                                      |
| Plunger style                       | 1st switch position: Roller<br>1st switch position: Roller |
| Switch actuation force              | 1. Switch position: 15 N                                   |
| Switching element                   | 1. Switch position: BSE 61                                 |

Range/Distance

|                 |                              |
|-----------------|------------------------------|
| Reproducibility | 1. Switch position: ±0.01 mm |
|-----------------|------------------------------|

Connector Drawings



View of connector side

Wiring Diagrams

