

1) Reference edge, 2) Sensing surface, 3) Function indicator FD/FE/LL, 4) Plastic



### Basic features

|                            |                                  |
|----------------------------|----------------------------------|
| <b>Additional features</b> | Special switch<br>Special wiring |
| <b>Approval/Conformity</b> | CE<br>WEEE                       |
| <b>Basic standard</b>      | IEC 60947-5-2                    |
| <b>Operating principle</b> | 1-6. Switch position: Inductive  |
| <b>Version</b>             | Inductive                        |

### Display/Operation

|                           |                                     |
|---------------------------|-------------------------------------|
| <b>Function indicator</b> | 1-6. Switch position: Optical fiber |
|---------------------------|-------------------------------------|

### Electrical connection

|                           |           |
|---------------------------|-----------|
| <b>Electrical version</b> | 3-/4-wire |
|---------------------------|-----------|

### Electrical data

|                                   |                               |
|-----------------------------------|-------------------------------|
| <b>Continuous current</b>         | 1-6. Switch position: 0.2 A   |
| <b>Rated operating voltage Ue</b> | 1-6. Switch position: 24 V DC |

### Environmental conditions

|                            |           |
|----------------------------|-----------|
| <b>Ambient temperature</b> | 0...60 °C |
| <b>IP rating</b>           | IP67      |

### Functional safety

|                     |                                                                            |
|---------------------|----------------------------------------------------------------------------|
| <b>MTTF (40 °C)</b> | BES 517-100-S42: 230 a<br>BES 517-100-S43: 230 a<br>BES 517-100-S44: 230 a |
|---------------------|----------------------------------------------------------------------------|

### Interface

|                         |                   |
|-------------------------|-------------------|
| <b>Switching output</b> | PNP complementary |
|-------------------------|-------------------|

### Material

|                                             |                     |
|---------------------------------------------|---------------------|
| <b>Housing material</b>                     | Aluminium, Anodized |
| <b>Housing material, surface protection</b> | Anodized            |

### Mechanical data

|                                      |                                                                                                                                                                                                                                        |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Distance cam - active surface</b> | 1-6. Switch position: 0...4.05 mm                                                                                                                                                                                                      |
| <b>Flange, feed-through</b>          | None                                                                                                                                                                                                                                   |
| <b>Installation</b>                  | Vertical                                                                                                                                                                                                                               |
| <b>Switching element</b>             | 1. Switch position: BES 517-100-S42<br>2. Switch position: BES 517-100-S43<br>3. Switch position: BES 517-100-S44<br>4. Switch position: BES 517-100-S42<br>5. Switch position: BES 517-100-S43<br>6. Switch position: BES 517-100-S44 |

### Range/Distance

|                                      |                              |
|--------------------------------------|------------------------------|
| <b>Assured operating distance Sa</b> | 1-6. Switch position: 3.2 mm |
| <b>Range</b>                         | 4 mm                         |
| <b>Rated operating distance Sn</b>   | 1-6. Switch position: 4 mm   |

**Mechanical Cam Switches**  
**BNS 816-X850-B06-00-12-610-11**  
**Order Code: BNS03NA**



**Remarks**

Mutual interference of the switching function BES 517-100-S42

BES 517-100-S43

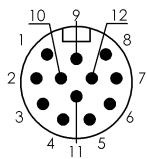
BES 517-100-S44 excluded due to different oscillator frequencies.

Connection / pin assignments determined by customer. Does not correspond to a known technical standard.

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values do not extend the limitation period for claims arising from defects or influence them in any other way.

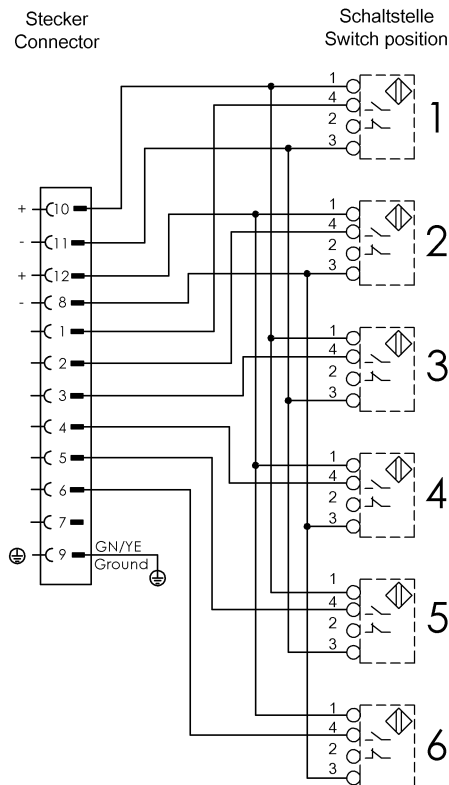
We call you attention to the fact that the product listed here alone are not considered safety components according to Machine Directive 2006/42/EC Article 2c. It is however possible to construct structures per EN 13849-1 having a high performance level using the products with two channels.

**Connector Drawings**



View of connector side

**Wiring Diagrams**



PE mit Gehäuse verbunden  
 Ground connected to housing