



### Basic features

|                     |                    |
|---------------------|--------------------|
| Approval/Conformity | CE<br>WEEE<br>UKCA |
| Basic standard      | IEC 60947-5-2      |

### Display/Operation

|                    |     |
|--------------------|-----|
| Function indicator | yes |
| Power indicator    | no  |

### Electrical connection

|                                   |                        |
|-----------------------------------|------------------------|
| Cable diameter D                  | 3.5 mm                 |
| Cable length L                    | 5 m                    |
| Conductor cross-section           | 0.22 mm <sup>2</sup>   |
| Connection                        | M12x1, 4-pin, A-coded  |
| Connection type                   | Connector, 5.0 m, PTFE |
| Number of conductors              | 3                      |
| Polarity reversal protected       | yes                    |
| Protection against device mix-ups | yes                    |
| Short-circuit protection          | yes                    |

### Electrical data

|   |             |
|---|-------------|
| Load capacitance max. at U <sub>e</sub>       | 9 µF        |
| Min. operating current I <sub>m</sub>         | 0 mA        |
| No-load current I <sub>o</sub> max., damped   | 5 mA        |
| No-load current I <sub>o</sub> max., undamped | 3 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC |
| Rated operating current I <sub>e</sub>        | 150 mA      |
| Rated operating voltage U <sub>e</sub> DC     | 24 V        |
| Ready delay t <sub>v</sub> max.               | 13 ms       |
| Residual current I <sub>r</sub> max.          | 20 µA       |
| Ripple max. (% of U <sub>e</sub> )            | 10 %        |
| Switching frequency                           | 9 Hz        |
| Utilization category                          | DC -13      |
| Voltage drop static max.                      | 1.3 V       |

### Environmental conditions

|                     |            |
|---------------------|------------|
| Ambient temperature | 0...230 °C |
| IP rating           | IP50       |

### Functional safety

|              |        |
|--------------|--------|
| MTTF (40 °C) | 2209 a |
|--------------|--------|

### Interface

|                  |                        |
|------------------|------------------------|
| Switching output | PNP normally open (NO) |
|------------------|------------------------|

### Material

|                          |                 |
|--------------------------|-----------------|
| Housing material         | Stainless steel |
| Material jacket          | PTFE            |
| Material sensing surface | LCP             |

Inductive Sensors  
**BES M30N1-PSC10B-GT05-T**  
Order Code: **BES05N5**

**BALLUFF**

**Mechanical data**

|              |                    |
|--------------|--------------------|
| Dimension    | Ø 30 x 74 mm       |
| Installation | for flush mounting |
| Size         | M30x1.5            |

**Range/Distance**

|                                |        |
|--------------------------------|--------|
| Assured operating distance Sa  | 8.1 mm |
| Hysteresis H max. (% of Sr)    | 15.0 % |
| Rated operating distance Sn    | 10 mm  |
| Real switching distance sr     | 10 mm  |
| Repeat accuracy max. (% of Sr) | 1.6 %  |
| Tolerance Sr                   | ±15 %  |

**Remarks**

Connector has a permissible temperature range of -20 °C to +70 °C

For more information about MTTF and B10d see MTTF / B10d Certificate

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 also do not extend the expiration period for defect claims or affect it in any way.

**Connector Drawings**



**Wiring Diagrams**

