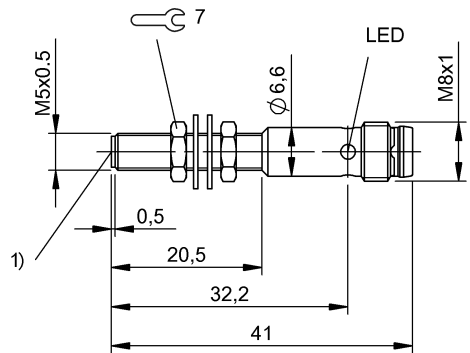




1) Sensing surface



**Basic features**

|                     |               |
|---------------------|---------------|
| Approval/Conformity | cULus         |
|                     | CE            |
|                     | UKCA          |
|                     | WEEE          |
| Basic standard      | IEC 60947-5-2 |

**Display/Operation**

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

**Electrical connection**

|                                   |                  |
|-----------------------------------|------------------|
| Connection                        | M8x1-Male, 3-pin |
| Polarity reversal protected       | yes              |
| Protection against device mix-ups | yes              |
| Short-circuit protection          | yes              |

**Electrical data**

|                                   |             |
|-----------------------------------|-------------|
| Load capacitance max. at Ue       | 1 µF        |
| Min. operating current Im         | 0 mA        |
| No-load current Io max., damped   | 6 mA        |
| No-load current Io max., undamped | 2 mA        |
| Operating voltage Ub              | 10...30 VDC |
| Output resistance Ra              | Open drain  |
| Rated insulation voltage Ui       | 75 V DC     |
| Rated operating current Ie        | 100 mA      |
| Rated operating voltage Ue DC     | 24 V        |
| Rated short circuit current       | 100 A       |
| Ready delay tv max.               | 21 ms       |
| Residual current Ir max.          | 10 µA       |
| Ripple max. (% of Ue)             | 10 %        |
| Switching frequency               | 5000 Hz     |
| Utilization category              | DC -13      |
| Voltage drop static max.          | 2 V         |

**Environmental conditions**

|                         |                                 |
|-------------------------|---------------------------------|
| Ambient temperature     | -25...70 °C                     |
| Contamination scale     | 3                               |
| EN 60068-2-27, Shock    | Half-sinus, 30 gn, 11 ms        |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating               | IP67                            |

**Functional safety**

|              |       |
|--------------|-------|
| MTTF (40 °C) | 305 a |
|--------------|-------|

Inductive Sensors  
**BES 516-3006-G-E5-C-S49**  
Order Code: BES00HP

**BALLUFF**

Interface

Switching output                      NPN normally open (NO)

Material

Housing material                      Stainless steel  
Material sensing surface              PBT

Mechanical data

Dimension                              Ø 5 x 41 mm  
Installation                            for flush mounting  
Size                                      M5x0.5  
Tightening torque                    1 Nm

Range/Distance

Assured operating distance Sa      1.21 mm  
Hysteresis H max. (% of Sr)        15.0 %  
Rated operating distance Sn        1.5 mm  
Real switching distance sr          1.5 mm  
Repeat accuracy max. (% of Sr)    5.0 %  
Switching distance marking        ■■  
Temperature drift max. (% of Sr)   10 %  
Tolerance Sr                          ±10 %

Remarks

The sensor is functional again after the overload has been eliminated.  
EMC: Surge resistance  
External protection circuit is required. Document 825345, Section 2.  
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

