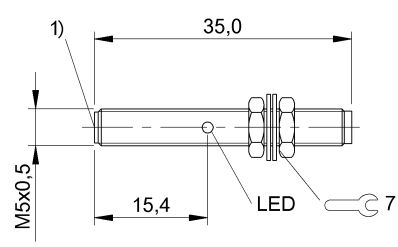


Inductive Sensors  
BES M05ED-PSC15B-S26G  
Order Code: BES013A

BALLUFF



1) Sensing surface



Basic features

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

Display/Operation

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

Electrical connection

|                                   |             |
|-----------------------------------|-------------|
| Connection                        | M5x0.5-Male |
| Polarity reversal protected       | yes         |
| Protection against device mix-ups | yes         |
| Short-circuit protection          | yes         |

Electrical data

|                                   |                |
|-----------------------------------|----------------|
| Load capacitance max. at Ue       | 0.2 $\mu$ F    |
| Min. operating current Im         | 0 mA           |
| No-load current Io max., damped   | 10 mA          |
| No-load current Io max., undamped | 3 mA           |
| Operating voltage Ub              | 10...30 VDC    |
| Output resistance Ra              | Open collector |
| 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.               | 25 ms          |
| Residual current Ir max.          | 80 $\mu$ A     |
| Ripple max. (% of Ue)             | 10 %           |
| Switching frequency               | 3000 Hz        |
| Utilization category              | DC -13         |
| Voltage drop static max.          | 3 V            |

Environmental conditions

|                         |                                 |
|-------------------------|---------------------------------|
| Ambient temperature     | -25...70 $^{\circ}$ 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 $^{\circ}$ C) | 830 a |
|------------------------|-------|

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**BALLUFF**

Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel

Material sensing surface PBT

Mechanical data

Dimension Ø 5 x 35 mm

Installation for flush mounting

Size M5x0.5

Tightening torque 1 Nm

Range/Distance

Assured operating distance Sa 1.2 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

EMC: For operating conditions with noise sources

External protection circuit is required. Document 825345.

Flush: See installation instructions for inductive sensors with extended range 825357.

The sensor is functional again after the overload has been eliminated.

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

