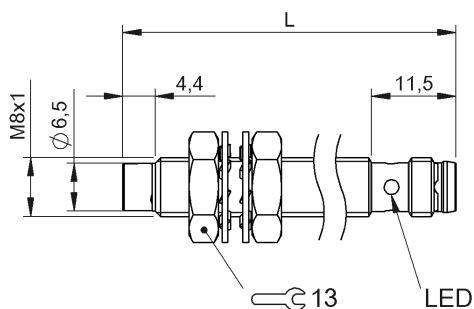




IND. CONT. EQ.  
81U2  
Class 2 Type 1



## Basic features

|                     |                            |
|---------------------|----------------------------|
| Approval/Conformity | CE<br>cULus<br>EAC<br>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 $U_e$       | 1 $\mu$ F   |
| No-load current $I_o$ max., damped   | 7 mA        |
| No-load current $I_o$ max., undamped | 11 mA       |
| Operating voltage $U_b$              | 10...30 VDC |
| Output resistance $R_a$              | 100.0 kOhm  |
| Protection class                     | II          |
| Rated insulation voltage $U_i$       | 250 V AC    |
| Rated operating current $I_e$        | 200 mA      |
| Rated operating voltage $U_e$ DC     | 24 V        |
| Rated short circuit current          | 100 A       |
| Ready delay $t_v$ max.               | 40 ms       |
| Residual current $I_r$ max.          | 10 $\mu$ A  |
| Ripple max. (% of $U_e$ )            | 10 %        |
| Switching frequency                  | 1200 Hz     |
| Utilization category                 | DC -13      |
| Voltage drop static max.             | 1.5 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 |
| Protection degree       | IP68                            |

## Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 584 a |
|--------------|-------|

## Material

|                          |                 |
|--------------------------|-----------------|
| Housing material         | Stainless steel |
| Material sensing surface | PBT             |

Inductive Sensors  
**BES M08EH1-POC60F-S49G**  
Order Code: BES0550

**BALLUFF**

**Mechanical data**

|                   |             |
|-------------------|-------------|
| Dimension         | Ø 8 x 60 mm |
| Installation      | non-flush   |
| Size              | M8x1        |
| Tightening torque | 3 Nm        |

**Output/Interface**

|                  |                          |
|------------------|--------------------------|
| Switching output | PNP normally closed (NC) |
|------------------|--------------------------|

**Range/Distance**

|                                  |        |
|----------------------------------|--------|
| Assured operating distance Sa    | 4.8 mm |
| Hysteresis H max. (% of Sr)      | 15.0 % |
| Rated operating distance Sn      | 6 mm   |
| Real switching distance sr       | 6 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.  
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**

