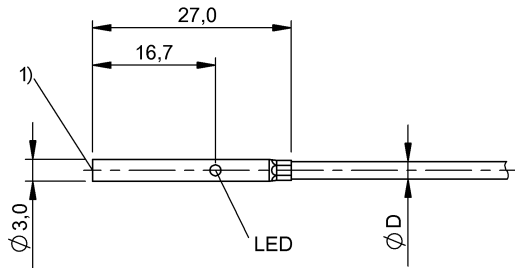


## BES 516-3044-G-E4-C-PU-05 BES00M4



1) Sensing surface



IND. CONT. EQ  
81U2  
for use in the secondary of  
a class 2 source of supply  
Environmental - Type 1 Enclosure



### Display/Operation

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

### Electrical connection

|                             |                      |
|-----------------------------|----------------------|
| Cable diameter D            | 2.40 mm              |
| Cable length                | 5 m                  |
| Conductor cross-section     | 0.10 mm <sup>2</sup> |
| Connection type             | Cable, 5.00 m, PUR   |
| Number of conductors        | 3                    |
| Polarity reversal protected | yes                  |
| Short-circuit protection    | yes                  |

### Electrical data

|   |             |
|---|-------------|
| Hysteresis H max. (% of Sr)                   | 15.0 %      |
| Load capacitance max. at Ue                   | 0.15 µF     |
| MTTF (40 °C)                                  | 305 a       |
| No-load current I <sub>0</sub> max., undamped | 2 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC |
| Output resistance R <sub>a</sub>              | Open drain  |
| Pollution degree                              | 3           |
| Protected against miswiring                   | yes         |
| Rated insulation voltage U <sub>i</sub>       | 75 V DC     |
| Rated operating current I <sub>e</sub> DC     | 100 mA      |
| Rated operating voltage U <sub>e</sub> DC     | 24 V        |
| Rated short circuit current                   | 100 A       |
| Ready delay t <sub>v</sub> max.               | 25 ms       |
| Repeat accuracy max. (% of Sr)                | 5.0 %       |
| Residual current I <sub>r</sub> max.          | 10 µA       |
| Switching frequency                           | 3500 Hz     |
| Utilization category                          | DC -13      |

Voltage drop static max.

2 V

### Environmental conditions

|                           |             |
|---------------------------|-------------|
| Ambient temperature       | -25...70 °C |
| Protection type IEC 60529 | IP67        |

### Functional safety

|                     |      |
|---------------------|------|
| Diagnostic coverage | 0 %  |
| Functional safety   | no   |
| Mission Time        | 20 a |

### General data

|                     |                    |
|---------------------|--------------------|
| Approval/Conformity | cULus<br>CE<br>EAC |
| Basic standard      | IEC 60947-5-2      |

### Material

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

### Mechanical data

|              |                    |
|--------------|--------------------|
| Dimension    | Ø 3 x 27 mm        |
| Installation | for flush mounting |
| Size         | D3.0               |

### Output/Interface

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

## BES 516-3044-G-E4-C-PU-05 BES00M4

### Range/Distance

|                                  |        |
|----------------------------------|--------|
| Assured operating distance Sa    | 0.8 mm |
| Range                            | 1 mm   |
| Rated operating distance Sn      | 1 mm   |
| Ripple max. (% of Ue)            | 10 %   |
| Switching distance marking       | ■ ■    |
| Temperature drift max. (% of Sr) | 10 %   |

### Remarks

#### EMC: Surge resistance

External protection circuit is required. Document 825345, Section 2.

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

The temperature drift can be below -15°C and above +60°C, up to 15% of the sensing range.

For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

### Wiring Diagram

