

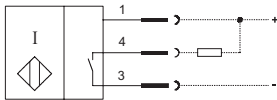
## Inductive Proximity Switch

### Series M12

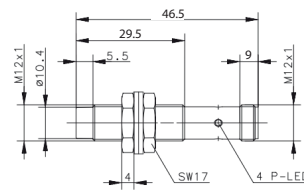
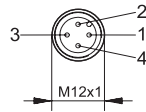
Description **KIN-M12NS/004-KLS12V**

Article number **6532344001**

#### Wiring Diagram



#### Plug




#### Identifying characteristics in accordance with EN 60947-5-2

| Electrical data                  |           |  |
|----------------------------------|-----------|--|
| Rated operating distance         | $S_n$     | 4 mm                                     |
| Standard target                  |           | 12 mm x 12 mm, t = 1 mm, material: FE360 |
| Real sensing distance            | $S_r$     | 3,6 ... 4,4 mm                           |
| Assured operating distance       | $S_a$     | 0 ... 3,2 mm                             |
| Switching element function       |           | DC, N.O.                                 |
| Repeat accuracy                  | R         | ≤ 5 %                                    |
| Differential travel (hysteresis) | H         | ≈ 8 %                                    |
| Rated operational voltage        | $U_e$     | 12 - 24 V DC                             |
| Operational voltage range        | $U_B$     | 10 - 30 V DC                             |
| Rated insulation voltage         | $U_i$     | 75 V DC                                  |
| Rated impulse withstand voltage  | $U_{imp}$ | 500 V                                    |
| Voltage drop                     | $U_d$     | ≤ 2 V specification                      |
| Utilization category             |           | DC 13                                    |
| Rated operational current        | $I_e$     | 200 mA ± 10 %                            |
| Minimum operating current        | $I_m$     | 1 mA                                     |
| Off-state current                | $I_r$     | < 0,1 mA                                 |
| No-load supply current           | $I_o$     | < 10 mA                                  |
| Switching element                |           | permanent overload and s.c.p.            |
| Short-circuit protection         |           | pulsed, current-limited and thermal      |
| Frequency of operating cycles    | f         | 450 Hz                                   |
| Mounting                         |           | non flush                                |
| False polarity protection        |           | yes                                      |
| Time delay before availability   | $t_v$     | < 300 ms                                 |

| Mechanical Data         |   |
|-------------------------|---|
| Front cap               | LCP, black  |
| Enclosure               | brass, nickel plated  |
| Ambient air temperature | -25 °C ... +70 °C   |
| Type of protection      | IP67 / NEMA Type 1<br>(only in fully locked position with it's plugs) |
| Function indication     | LED, yellow   |
| Degree of pollution     | 3 (Pollution of the sensing surface may decrease operating distance)  |
| Termination type        | plug socket M12x1   |
| For attachment          | 2 x hexagon nut (tightening torque ≤ 10 Nm) and 2 x toothed washer    |

| Product reliability (in acc. with DIN EN 61709 (SN 29500)) |             |
|--|-------------|
| MTTF (at 40 °C)  | >1150 years |

| EU Conformity |  |
|---------------|--|
|               | acc. to directive 2014/30/EU (EMC-Directive) |

| Approvals |   |
|-----------|---|
|           |  |

| Notes   |  |
|---|--|
| To be used with a class 2 power supply according to UL approval.                                      |  |
| Further data and information can be found at <a href="http://www.bernstein.eu">www.bernstein.eu</a> . |  |