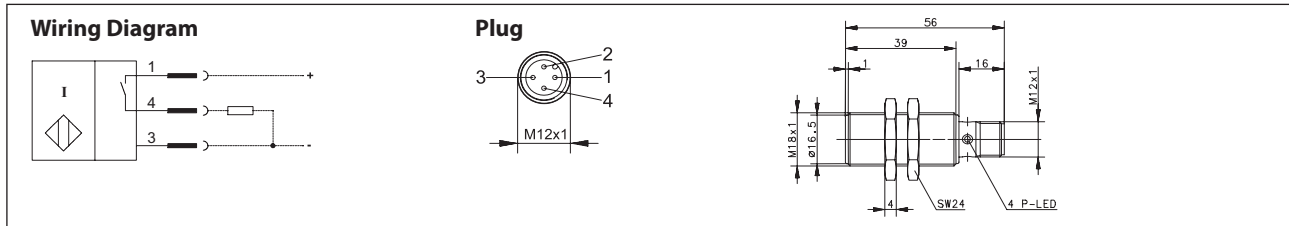



## Inductive Proximity Switch Series M18

Description **KIB-M18PS/005-KLS12VI**

Article number **6532905003**



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

| Electrical data                           |           |  |
|---|-----------|--|
| <b>Sensor operation (delivery status)</b> |           |  |
| Rated operating distance                  | $S_n$     | 5 mm   |
| Standard target                           |           | 18 mm x 18 mm, t = 1 mm, material: FE360   |
| Real sensing distance                     | $S_r$     | 4,5 ... 5,5 mm   |
| Assured operating distance                | $S_a$     | 0 ... 4,1 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         | 500 Hz   |
| Mounting                                  |           | flush  |
| False polarity protection                 |           | yes  |
| Time delay before availability            | $t_v$     | < 300 ms   |
| <b>IO-Link operation</b>                  |           |  <b>IO-Link</b> |
| Rated operating voltage range             | $U_B$     | 18 - 30 V DC (typ. 24 V DC)  |
| Output                                    |           | IO-Link  |
| Switching element function                |           | N.O. / N.C. parameterizable  |
| Repeat accuracy                           | R         | ≤ 5 % from the end value,<br>$U_B$ and temperature at a constant level                             |
| No-load supply current                    | $I_o$     | < 15 mA  |
| Serial output                             |           | Short-circuit proof  |
| False polarity protection                 |           | yes  |


| IO-Link specification      |                        |
|----------------------------|------------------------|
| IO-Link Spec V 1.1         | compliant (yellow LED) |
| Speed                      | COM 2 38,4 kBaud       |
| Process data Device→Master | 8 bit                  |
| cycle time                 | 10 ms                  |

| Electromagnetic compatibility (EMC)     |                                  |
|---|----------------------------------|
| Sensor operation                        |                                  |
| Electromagnetic field test              | IEC 61000-4-3                    |
| Electrostatic discharge test            | IEC 61000-4-2                    |
| Electrical fast transient immunity test | IEC 61000-4-4                    |
| Radiated disturbance field strength     | EN 55011                         |
| IO-Link operation                       |                                  |
|   | acc. to EN 60947-5-7, EN 61131-9 |

| 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 ≤ 25 Nm)                           |

| 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> . |  |