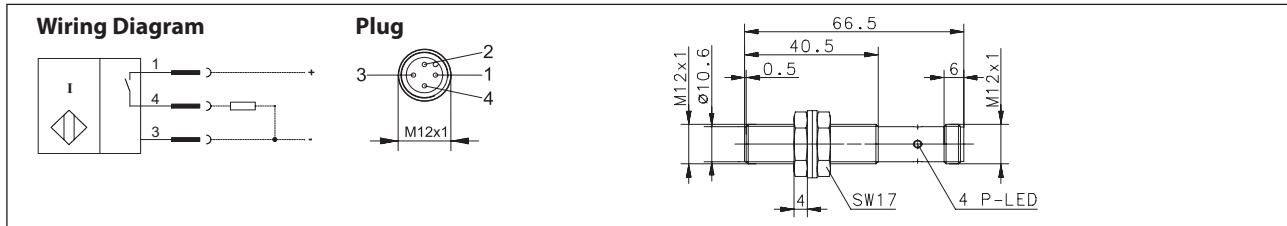



Inductive Proximity Switch Series M12

Description **KIB-M12PS/002-KLS12I**

Article number **6532943002**



Identifying characteristics in accordance with EN 60947-5-2

| Electrical data | | |
|---|-----------|---|
| Sensor operation (delivery status) | | |
| Rated operating distance | S_n | 2 mm |
| Standard target | | 12 mm x 12 mm, t = 1 mm, material: FE360 |
| Real sensing distance | S_r | 1,8 ... 2,2 mm |
| Assured operating distance | S_a | 0 ... 1,6 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 | 800 Hz |
| Mounting | | flush |
| False polarity protection | | yes |
| Time delay before availability | t_v | < 300 ms |
| IO-Link operation  IO-Link | | |
| 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, 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 |

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Technical modifications and errors excepted.

The technical datasheet corresponds to the technical state as of 2019-04-23 and will not be removed in case of changes.


| 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 (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 www.bernstein.eu . | |