

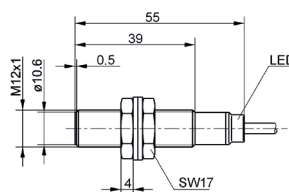
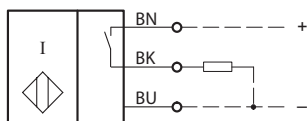
Inductive Proximity Switch

Series M12


Description **KIB-M12PS/002-KL2I**

Article number **6532903002**

Wiring Diagram



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 		
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 2020-03-24 and will not be removed in case of changes.

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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
End cap	PA12, transparent
Temperature range	- 20 °C ... + 70 °C (cable not fixed mounted) - 25 °C ... + 70 °C (cable fixed mounted)
Type of protection	IP67 / NEMA Type 1
Function indication	LED, yellow
Degree of pollution	3 (Pollution of the sensing surface may decrease operating distance)
Termination type	Cable 3 x 0,14 mm ² x 2 m ±5 %, PUR - Outer jacket, black
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 .	