

# Technical Data

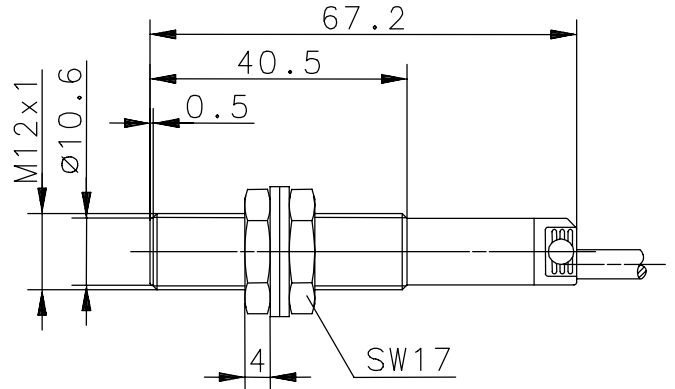
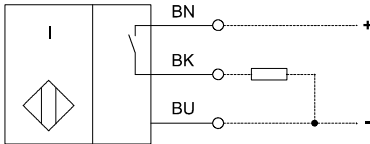
## Inductive Proximity Switch

### Series M12

Description **KIB-M12PS/002-KL2**

Article number **6502903027**

#### Wiring Diagram



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

##### Electrical data

Rated operating distance	$S_n$	2mm
Standard target		12mm x 12mm, t = 1mm; material: FE360
Effective operating distance	$S_r$	1,8 ... 2,2mm
Assured operating distance	$S_a$	0 ... 1,6mm
Switching element function		DC, N.O.
Repeat accuracy	R	≤ 5%
Differential travel (hysteresis)	H	≈ 10%
Operational voltage range	$U_B$	10 - 150V DC
Rated insulation voltage	$U_i$	300V
Rated impulse withstand voltage	$U_{imp}$	500V
Voltage drop	$U_d$	@200mA < 2,5V DC; @100mA < 1,8V DC; @50mA < 1,5V DC; @5mA < 1V DC
Utilization category		DC 13
Rated operational current	$I_e$	≤ 200mA
Minimum operational current	$I_m$	≥ 1mA
Off-state current	$I_r$	< 0,1mA
No-load supply current	$I_o$	≤ 5mA; typ.3,5mA
Rated conditional short-circuit current		100A
Switching element		Permanent overload and s.c.p.
Short-circuit protection		pulsed
Frequency of operating cycles	f	800Hz
Rated supply frequency		DC
Mounting		flush
False polarity protection		yes
Time delay before availability	$t_v$	< 50ms; typ.12ms

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### Electromagnetic compatibility (EMC)

Electromagnetic field test	IEC 61000-4-3	10V/m	80MHz – 1GHz
Electrostatic discharge test	IEC 61000-4-2	8kV	
Electrical fast transient immunity test (Burst)	IEC 61000-4-4	4kV	(coupling clamp)
Electrical fast transient immunity test (Burst)	IEC 61000-4-4	2kV	(directly coupled)
Radiated disturbance field strength	EN 55011	Acc. to test	not measurable
Impulse voltage withstand ability	IEC 61000-4-5	4kV	common mode (R <sub>i</sub> = 2Ω) Supply cable
Impulse voltage withstand ability	IEC 61000-4-5	2kV	differential mode (R <sub>i</sub> = 12Ω) Supply cable
Impulse voltage withstand ability	IEC 61000-4-5	2kV	switched contact (R <sub>i</sub> = 42Ω)
Impulse voltage withstand ability	IEC 60255-5	5kV to 500Ω	
Magnetic field immunity	IEC 61000-4-1 A4	50Hz, 100A/m	

### Mechanical Data

Front cap	PA6.6, black
Enclosure	Brass, nickel plated
End cap	PA12, transparent
Ambient air temperature	-25°C ... +85°C
Type of protection	IP67
Pollution degree	3 (Pollution of the active zone can cause impairments of the operating distances.)
Indication	LED, yellow (visible through a transparent end cap)
Termination type	Cable 3 x 0,34mm <sup>2</sup> x 2m, PVC - Outer jacket, black
For attachment	2 x hexagon nut and 2 x toothed washer

### EU Conformity

CE

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