Capacitive Proximity Switch
Series M12

Description **KCB-M12PS/002-KLSM8**	Article number **6507903004**

Wiring Diagram
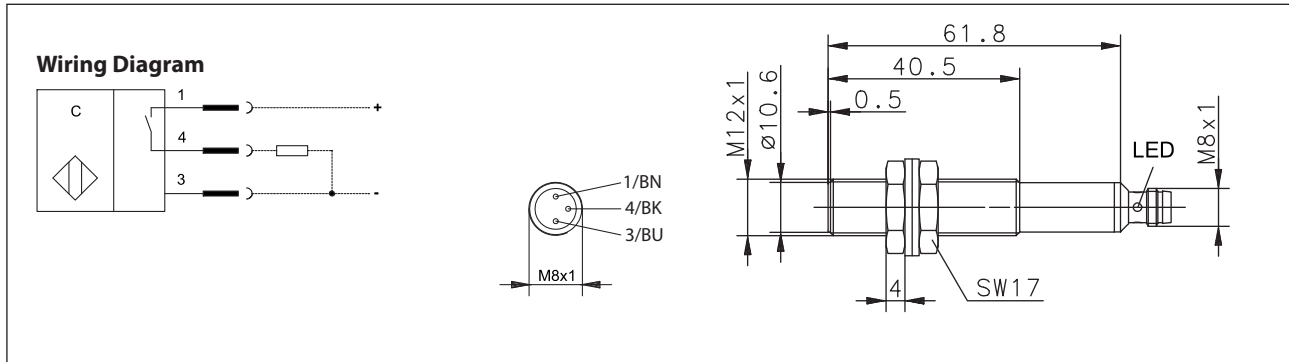
Identifying characteristics in accordance with EN 60947-5-2

Electrical data		
Rated operating distance	S_n	2 mm
Mounting		flush
Standard target		12 x 12 x 1 mm; material: steel; connected to earth
Effective operating distance	S_r	1,8-2,2 mm
Assured operating distance	S_a	$0 \le Sa \le 0{,}8 \cdot Sr$
Switching element function		N.O.
Repeat accuracy	R	$\le 0{,}1 \cdot Sr$
Differential travel (hysteresis)	H	$\le 0{,}2 \cdot Sr$
Frequency of operating cycles	f	≈ 25 Hz
Rate doperational voltage	U_e	12 V - 24 V DC
Operational voltage range	U_B	10 V - 36 V DC
Rated insulation voltage	U_i	75 V DC
Rated impulse withstand voltage	U_{imp}	500 V
Voltage drop	U_d	$\le 1{,}5$ V DC
Utilization category		DC-13
Rated operational current	I_e	200 mA DC
Minimum operational current	I_m	≥ 1 mA DC
Off–state current	I_r	$\le 0{,}5$ mA DC
No–load supply current	I_o	≤ 15 mA DC
Switching element		permanent overload and s.c.p.
Short–circuit protection		pulsed
False polarity protection		with permutation of +, –, output no damage occurs
Time delay before availability	t_v	≤ 50 ms

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Electromagnetic compatibility (EMC)		
Electromagnetic field test	IEC 61000-4-3	3 V/m, 80...1000 MHz
Electrostatic discharge test	IEC 61000-4-2	4 kV CD / 8 kV AD
Electrical fast transient immunity test (Burst)	IEC 61000-4-4	1kV coupling clamp
Impulse voltage withstand ability (Surge)	IEC 61000-4-5	500 V, 1,2/50 µs @ Ri = 42 Ω
Radiated disturbance field strength	EN 55011	≤ 40 dB (µV/m)

Mechanical Data	
Enclosure	Brass, nickel plated
Front cap	PTFE
Ambient air temperature	-25 °C ... +70 °C
Type of protection	IP65 (with plug-in-connector) IP67 (with screwed plug-in-connector)
Pollution degree	3 (Pollution of the optic can cause impairments of the operating distances.)
Indication	Output ON = LED yellow
Termination type	M8 x 1, brass, nickel plated
For attachment	Hexagon nut, brass, nickel plated (with toothed washers A2)

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

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