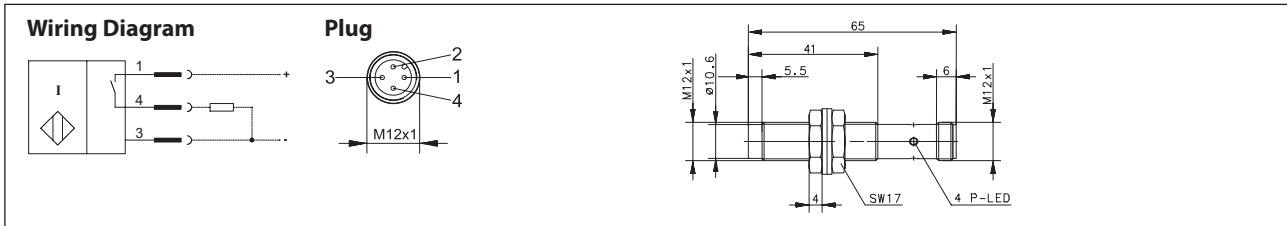


Inductive Proximity Switch Series M12

Description **KIN-M12PS/004-KLS12I**

Article number **6532944002**



Identifying characteristics in accordance with EN 60947-5-2

Electrical data	
Sensor operation (delivery status)	
Rated operating distance	S_n 4 mm
Standard target	12 mm x 12 mm, t = 1 mm, material: FE360
Real sensing distance	S_r 3,6 ... 4,4 mm
Assured operating distance	S_a 0 ... 3,2 mm
Switching element function	DC, N.O.
Repeat accuracy	R $\leq 5\%$
Differential travel (hysteresis)	H $\approx 8\%$
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 $\pm 10\%$
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 450 Hz
Mounting	non 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 $\leq 5\%$ 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


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 .	