

Inductive Proximity Switch

Series M12

Wiring Diagram (sensor operation) Wing Diagram (sensor operation) Wiring Diagram (sensor operation)

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	Sa	0 3,2 mm
Switching element function		DC, N.O.
Repeat accuracy	R	≤ 5 %
Differential travel (hysteresis)	Н	≈ 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	l _e	200 mA ±10 %
Minimum operating current	l _m	1 mA
Off-state current	I_r	< 0,1 mA
No-load supply current	l _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

Technical Data



Mechanical Data	
Front cap	LCP, black
Enclosure	brass, nickel plated
End cap	PA12, transparent
Temperature range	-20 °C +70 °C (moved cable) -25 °C +70 °C (fixed cable)
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 \leq 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	
	c UL us

Notes

To be used with a class 2 power suppy according to UL approval.

Further data and information can be found at www.bernstein.eu.