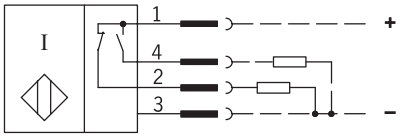
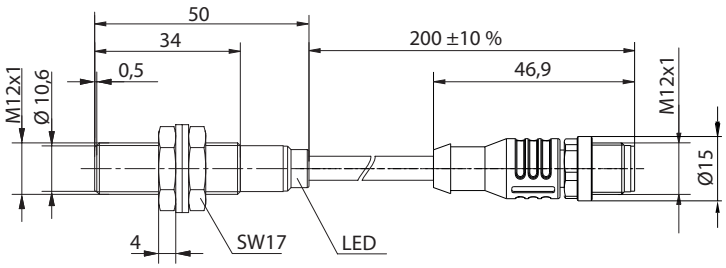
Inductive Proximity Switch
Series M12

Description **SIB-M12PA/002-KL0,2S12**	Article number **6502803003**

Wiring Diagram





Identifying characteristics in accordance with EN 60947-5-2

Electrical data		
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		antivalent, DC
Repeat accuracy	R	≤ 5 %
Differential travel (hysteresis)	H	≈ 10 %
Operational voltage range	U_B	8 - 30 V DC (PELV / SELV power supply unit)
Rated insulation voltage	U_i	75 V DC
Rated impulse withstand voltage	U_{imp}	500 V
Voltage drop	U_d	≤ 2,5 V
Utilization category		DC-13
Rated operational current	I_e	200 mA
Minimum operating current	I_m	1 mA
Off–state current	I_r	≤ 0,1 mA
No–load supply current	I_o	≤ 8 mA
Switching element		Permanent overload and s.c.p.
Short–circuit protection		pulsed
Frequency of operating cycles	f	200 Hz
Mounting		flush
False polarity protection		yes
Turn-off delay	t_a	≤ 5 ms
Time delay before availability	t_v	≤ 50 ms

Mechanical Data	
Front cap	LCP, black
Enclosure	Brass, nickel plated
Ambient air temperature	-30 °C ... +80 °C
Type of protection	IP67 (only in fully locked position with it's plugs)
Pollution degree	3 (Pollution of the active zone can cause impairments of the operating distances.)
Termination type	Cable, PUR-Outer jacket; with plug connector M12
For attachment	2 x hexagon nut and 2x toothed lock washer
Tightening torque for fastening nuts	3 Nm +1 Nm

Safety data at 60°C The inductive proximity switch may only be used in conjunction with a safety controller, for example a safety PLC, which recognises a sensor error before the next request to the safety function.		
Up to PL	d	acc. to EN ISO 13849-1
Category	2	
PFH_D	$1{,}46 \times 10^{-8}$ 1/h	acc. to DIN EN 62061
SIL CL	2	
MTTF d	1990 years	
Service life	20 years	

EU Conformity	
	acc. to directive 2014/30/EU (EMC-Directive)
	acc. to directive 2006/42/EC (Machinery Directive)

Technical modifications and errors excepted.
The technical datasheet corresponds to the technical state as of 2025-12-01 and will not be removed in case of changes.