

Inductive Sensor

with Increased Switching Distance

I1AH012

Part Number

weproTec



- Increased switching distance
- Innovative ASIC circuit technology
- Integrated error display
- Minimal mounting clearance thanks to wenglor weproTec

Inductive Sensors with increased switching distances are distinguished by rugged design, easy installation and reliable measured values. The large range makes additional types of sensor superfluous because they can also be used to implement special applications. In addition to error-free operation of several sensors in a very small space, the new generation also provides the possibility of detecting system errors before it's too late thanks to ASIC und wenglor weproTec.

Technical Data

Inductive Data

Switching Distance	2 mm
Correction Factors Stainless Steel V2A/CuZn/Al	0,78/0,45/0,42
Mounting	flush
Mounting A/B/C/D in mm	0/9/6/0
Mounting B1 in mm	0...2
Switching Hysteresis	< 10 %

Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 5 mA
Switching Frequency	1120 Hz
Temperature Drift	< 10 %
Temperature Range	-40...80 °C
Switching Output Voltage Drop	< 1 V
Switching Output/Switching Current	150 mA
Residual Current Switching Output	< 100 µA
Short Circuit Protection	yes
Reverse Polarity and Overload Protection	yes
Protection Class	III

Mechanical Data

Housing Material	CuZn, nickel-plated
Degree of Protection	IP67
Connection	M8 × 1; 3-pin

Safety-relevant Data

MTTFd (EN ISO 13849-1)	3706,54 a
Diagnostic Coverage (DC)	0 %
Service Life TM (EN ISO 13849-1)	20 a

Function

Error Indicator	yes
-----------------	-----

NPN NC



Connection Diagram No.

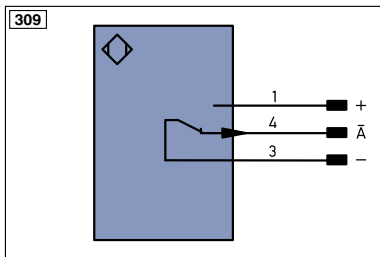
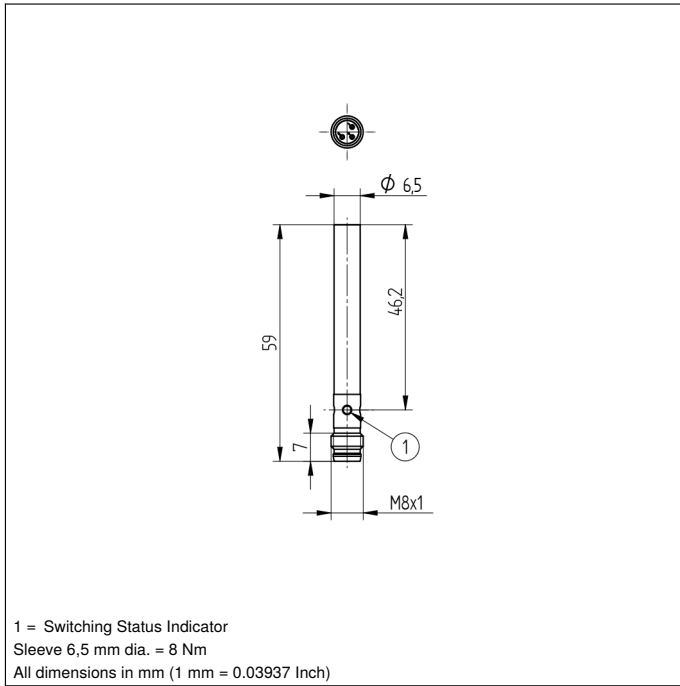
309

Suitable Connection Equipment No.

8

Suitable Mounting Technology No.

240



Legend					
+	Supply Voltage +	PT	Platinum measuring resistor	ENa	Encoder A
-	Supply Voltage 0 V	nc	not connected	ENb	Encoder B
~	Supply Voltage (AC Voltage)	U	Test Input	AMIN	Digital output MIN
A	Switching Output (NO)	Ū	Test Input inverted	AMAX	Digital output MAX
Ā	Switching Output (NC)	W	Trigger Input	AOK	Digital output OK
V	Contamination/Error Output (NO)	O	Analog Output	SY In	Synchronization In
V̄	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY OUT	Synchronization OUT
E	Input (analog or digital)	BZ	Block Discharge	Out	Brightness output
T	Teach Input	AW	Valve Output	M	Maintenance
Z	Time Delay (activation)	a	Valve Control Output +	rsv	reserved
S	Shielding	b	Valve Control Output 0 V		
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 757	
TxD	Interface Send Path	E+	Receiver-Line	BK	Black
RDY	Ready	S+	Emitter-Line	BN	Brown
GND	Ground	±	Grounding	RD	Red
CL	Clock	SnR	Switching Distance Reduction	OG	Orange
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path	YE	Yellow
	IO-Link	Tx+/-	Ethernet Send Path	GN	Green
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)/B(-)	BU	Blue
IN	Safety Input	La	Emitted Light disengageable	VT	Violet
OSSD	Safety Output	Mag	Magnet activation	GY	Grey
Signal	Signal Output	RES	Input confirmation	WH	White
Bl..D+/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contactorm Monitoring	PK	Pink
EN0r542z	Encoder 0-pulse 0-0 (TTL)	ENAr542z	Encoder A/Ā (TTL)	GNYE	Green/Yellow
		ENBr542z	Encoder B/B̄ (TTL)		

Mounting

