Inductive Sensor
with Increased Switching Distance

I12H012
Part Number

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

Technical Data

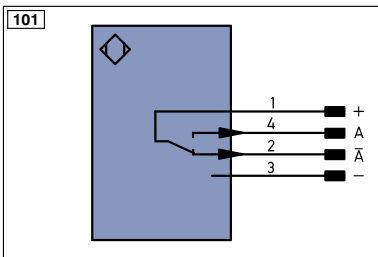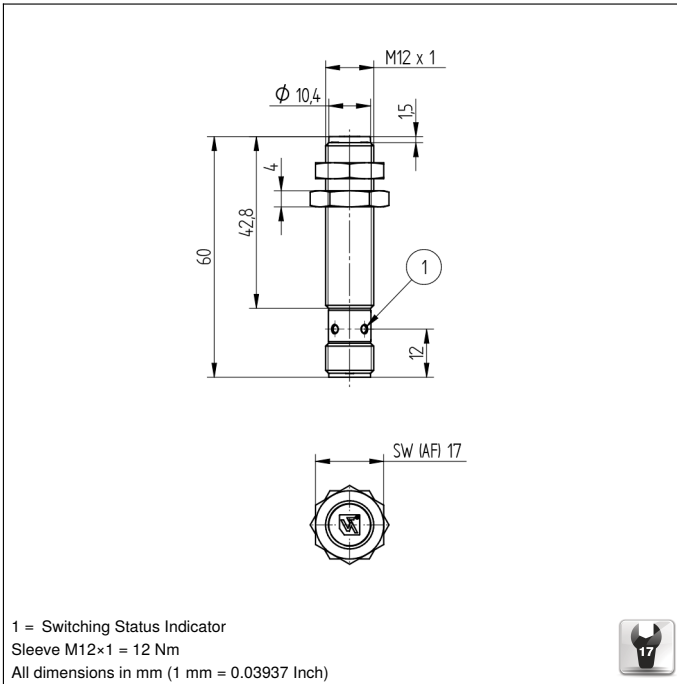| Inductive Data	
Switching Distance	8 mm
Correction Factors Stainless Steel V2A/CuZn/Al	1,07/0,47/0,45
Mounting	semi-flush
Mounting A/B/C/D in mm	12/26/24/4
Mounting B1 in mm	0...10
Switching Hysteresis	< 10 %
Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (Ub = 24 V)	< 14 mA
Switching Frequency	450 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	M12 × 1; 4-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	3706,54 a
Function	
Error Indicator	yes
PNP NO/NC antivalent	●
Connection Diagram No.	101
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	170 172

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.

Complementary Products

PNP-NPN Converter BG2V1P-N-2M

1 = Switching Status Indicator
Sleeve M12×1 = 12 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

17

101

1	+	
4	A	
2	Ā	
3	−	

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		OLT	Brightness output
T	Teach Input		AMW	Valve Output		M	Maintenance
Z	Time Delay (activation)		a	Valve Control Output +			
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
BI_D+/−	Ethernet Gigabit bidirect. data line (A-D)		EDM	Contactor Monitoring		PK	Pink
EN0 RS422	Encoder 0-pulse 0-0̄ (TTL)		ENA RS422	Encoder A/Ā (TTL)		GNYE	Green/Yellow
			ENB RS422	Encoder B/B̄ (TTL)			

Mounting