

# Inductive Sensor

with Standard Switching Distances

## I12N002

Part Number

weproTec



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

### Technical Data

#### Inductive Data

Switching Distance	2 mm
Correction Factors Stainless Steel V2A/CuZn/Al	1,13/0,64/0,57
Mounting	flush
Mounting A/B/C/D in mm	0/8/6/0
Mounting B1 in mm	0...1
Switching Hysteresis	< 10 %

#### Electrical Data

Supply Voltage	10...30 V DC
Current Consumption (U <sub>b</sub> = 24 V)	< 6 mA
Switching Frequency	1180 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; 3-pin

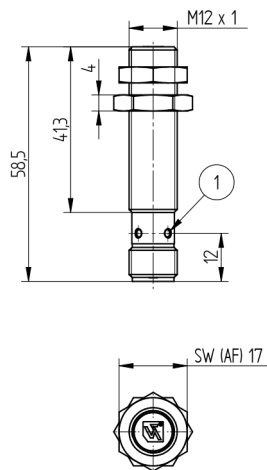
#### Safety-relevant Data

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 NO	●
Connection Diagram No.	302
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	170   171

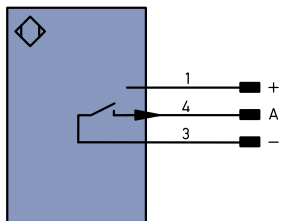
Inductive Sensors with standard switching distances are distinguished by rugged design, easy installation and reliable measured values. In addition to error-free operation of several sensors in a very small space, the new generation also provides the possibility of detecting system errors before it's too late thanks to ASIC und wenglor weproTec.



1 = Switching Status Indicator  
Sleeve M12x1 = 12 Nm  
All dimensions in mm (1 mm = 0.03937 Inch)



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#### Legend

+	Supply Voltage +	PT	Platinum measuring resistor
-	Supply Voltage 0 V	nc	not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	U	Test Input inverted
Ā	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	O	Analog Output
Ṽ	Contamination/Error Output (NC)	O-	Ground for the Analog Output
E	Input (analog or digital)	BZ	Block Discharge
T	Teach Input	AWV	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	E+	Receiver-Line
RDY	Ready	S+	Emitter-Line
GND	Ground	±	Grounding
CL	Clock	SnR	Switching Distance Reduction
E/A	Output/Input programmable	Rx+/-	Ethernet Receive Path
IO-Link	IO-Link	Tx+/-	Ethernet Send Path
PoE	Power over Ethernet	Bus	Interfaces-Bus A(+)/B(-)
IN	Safety Input	La	Emitted Light disengageable
OSSD	Safety Output	Mag	Magnet activation
Signal	Signal Output	RES	Input confirmation
BI-D+/-	Ethernet Gigabit bidirect. data line (A-D)	EDM	Contactor Monitoring
EN0 RS422	Encoder 0-pulse 0-0 (TTL)	ENAR5422	Encoder A/A (TTL)
		ENBR5422	Encoder B/B (TTL)

ENa	Encoder A
ENb	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
LI	Brightness output
M	Maintenance
rsv	reserved

#### Wire Colors according to DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow

## Mounting

