

Inductive Sensor

with Increased Switching Distance

I1BH021

Part Number

weproTec

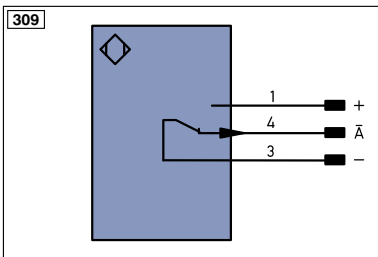
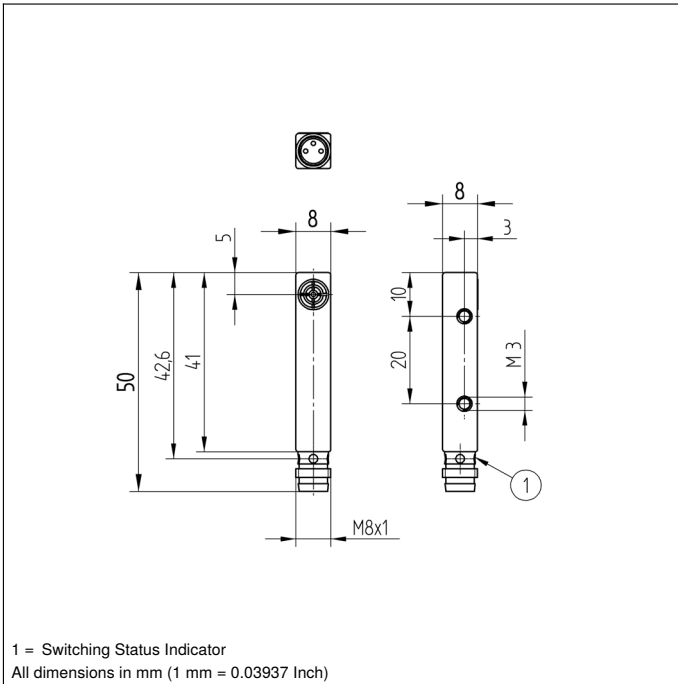


- Increased switching distance
- Innovative ASIC circuit technology
- Integrated error display
- Minimal mounting clearance thanks to wenglor weproTec

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 | 1,16/0,70/0,67 |
| Mounting | flush |
| Mounting A/B/C/D in mm | 0/9/6/0 |
| Mounting B1 in mm | 0...3 |
| Switching Hysteresis | < 10 % |
| Electrical Data | |
| Supply Voltage | 10...30 V DC |
| Current Consumption (Ub = 24 V) | < 10 mA |
| Switching Frequency | 920 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 | Plastic |
| 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 |

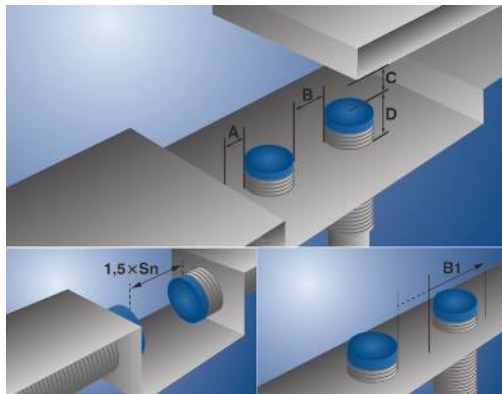


| Legend | | Legend | | Legend | |
|-----------|--|-----------|------------------------------|--------|---------------------|
| + | Supply Voltage + | PT | Platinum measuring resistor | ENa | Encoder A |
| - | Supply Voltage 0 V | nc | not connected | ENb | Encoder B |
| ~ | Supply Voltage (AC Voltage) | U | Test Input | AMIN | Digital output MIN |
| A | Switching Output (NO) | U | 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 |
| ṽ | 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 | | |
| 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 | 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 | | |
| Bl...D+/- | Ethernet Gigabit bidirect. data line (A-D) | EDM | Contacting Monitoring | | |
| EN0...542 | Encoder 0-pulse 0-0 (TTL) | ENa...542 | Encoder A/Ā (TTL) | | |
| | | ENb...542 | Encoder B/B̄ (TTL) | | |

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



Specifications are subject to change without notice