

# Inductive Sensor with Increased Switching Distance

## I08H037

Part Number

weproTec

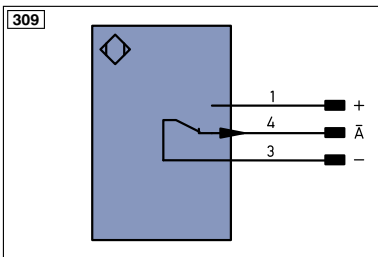
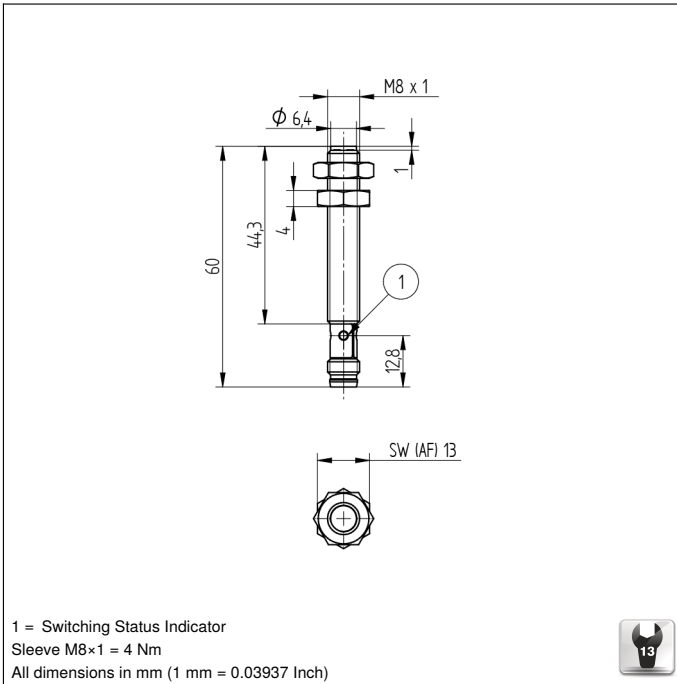


- Increased switching distance
- Innovative ASIC circuit technology
- Integrated error display
- Minimal mounting clearance thanks to wenglor weproTec

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                             | 4 mm                |
| Correction Factors Stainless Steel V2A/CuZn/Al | 1,07/0,5/0,46       |
| Mounting                                       | semi-flush          |
| Mounting A/B/C/D in mm                         | 8/11/12/3           |
| Mounting B1 in mm                              | 0...6               |
| Switching Hysteresis                           | < 10 %              |
| Electrical Data                                |                     |
| Supply Voltage                                 | 10...30 V DC        |
| Current Consumption (U <sub>b</sub> = 24 V)    | < 11 mA             |
| Switching Frequency                            | 630 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           |
| Function                                       |                     |
| Error Indicator                                | yes                 |
| NPN NC   | ●                   |
| Connection Diagram No.                         | 309                 |
| Suitable Connection Equipment No.              | 8                   |
| Suitable Mounting Technology No.               | 200   202           |



| Legend                |  |                 |                                |                                      |                            |
|-----------------------|--|-----------------|--------------------------------|--------------------------------------|----------------------------|
| +                     | Supply Voltage +                           | PT              | Platinum measuring resistor    | EN <sub>A</sub> ES42Z                | Encoder A/ $\bar{A}$ (TTL) |
| -                     | Supply Voltage 0 V                         | nc              | not connected                  | EN <sub>B</sub> ES42Z                | Encoder B/ $\bar{B}$ (TTL) |
| ~                     | Supply Voltage (AC Voltage)                | U               | Test Input                     | EN <sub>A</sub>                      | Encoder A                  |
| A                     | Switching Output (NO)                      | $\bar{U}$       | Test Input inverted            | EN <sub>B</sub>                      | Encoder B                  |
| $\bar{A}$             | Switching Output (NC)                      | W               | Trigger Input                  | A <sub>MIN</sub>                     | Digital output MIN         |
| V                     | Contamination/Error Output (NO)            | W-              | Ground for the Trigger Input   | A <sub>MAX</sub>                     | Digital output MAX         |
| $\bar{V}$             | Contamination/Error Output (NC)            | O               | Analog Output                  | A <sub>OK</sub>                      | Digital output OK          |
| E                     | Input (analog or digital)                  | O-              | Ground for the Analog Output   | SY <sub>in</sub>                     | Synchronization In         |
| T                     | Teach Input                                | BZ              | Block Discharge                | SY <sub>OUT</sub>                    | Synchronization OUT        |
| Z                     | Time Delay (activation)                    | A <sub>WV</sub> | Valve Output                   | O <sub>LT</sub>                      | Brightness output          |
| S                     | Shielding                                  | a               | Valve Control Output +         | M                                    | Maintenance                |
| RxD                   | Interface Receive Path                     | b               | Valve Control Output 0 V       | rsv                                  | reserved                   |
| TxD                   | Interface Send Path                        | SY              | Synchronization                | Wire Colors according to DIN IEC 757 |                            |
| RDY                   | Ready                                      | SY-             | Ground for the Synchronization | BK                                   | Black                      |
| GND                   | Ground                                     | E+              | Receiver-Line                  | BN                                   | Brown                      |
| CL                    | Clock                                      | S+              | Emitter-Line                   | RD                                   | Red                        |
| E/A                   | Output/Input programmable                  | $\pm$           | Grounding                      | OG                                   | Orange                     |
|                       | IO-Link                                    | S <sub>nR</sub> | Switching Distance Reduction   | YE                                   | Yellow                     |
| PoE                   | Power over Ethernet                        | Rx+/-           | Ethernet Receive Path          | GN                                   | Green                      |
| IN                    | Safety Input                               | Tx+/-           | Ethernet Send Path             | BU                                   | Blue                       |
| OSSD                  | Safety Output                              | Bus             | Interfaces-Bus A(+)/B(-)       | VT                                   | Violet                     |
| Signal                | Signal Output                              | L <sub>a</sub>  | Emitted Light disengageable    | GY                                   | Grey                       |
| BI...D+/-             | Ethernet Gigabit bidirect. data line (A-D) | Mag             | Magnet activation              | WH                                   | White                      |
| EN <sub>0</sub> ES42Z | Encoder 0-pulse 0-0 (TTL)                  | RES             | Input confirmation             | PK                                   | Pink                       |
|                       |  | EDM             | Contactur Monitoring           | GNVE                                 | Green/Yellow               |

## Mounting

