

# Inductive Sensor with Increased Switching Distance

## I08H028

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 | 0,81/0,39/0,42 |
| 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) | < 9 mA       |
| Switching Frequency                         | 1140 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            | Cable, 3-wire, 2 m  |
| Cable Jacket Material | PVC                 |

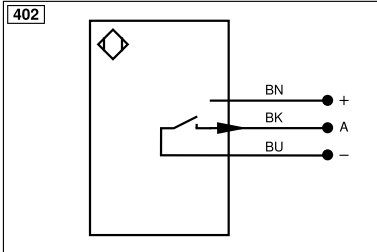
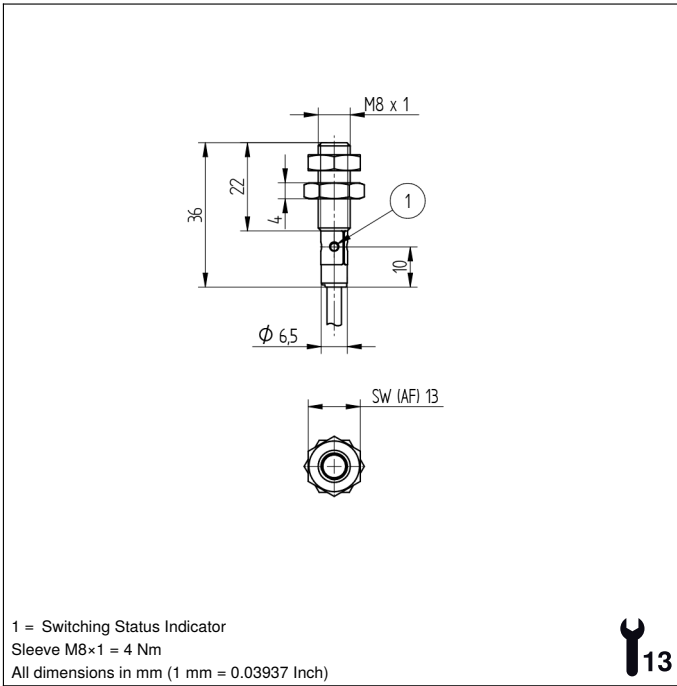
#### Safety-relevant Data

|                        |           |
|------------------------|-----------|
| MTTFd (EN ISO 13849-1) | 3706,54 a |
|------------------------|-----------|

#### Function

|                                  |   |
|----------------------------------|---|
| Error Indicator                  | yes   |
| NPN NO                           |  |
| Connection Diagram No.           | <b>402</b>  |
| Suitable Mounting Technology No. | <b>200   201</b>  |

\* Temperature range with permanently installed cable, bending radius: > 40 mm



| Legend    |  |          |  |
|-----------|--|----------|--|
| +         | Supply Voltage +                           | nc       | Not connected                          |
| -         | Supply Voltage 0 V                         | U        | Test Input                             |
| ~         | Supply Voltage (AC Voltage)                | Ü        | Test Input inverted                    |
| A         | Switching Output (NO)                      | W        | Trigger Input                          |
| Ā         | Switching Output (NC)                      | W-       | Ground for the Trigger Input           |
| V         | Contamination/Error Output (NO)            | O        | Analog Output                          |
| ȳ         | Contamination/Error Output (NC)            | O-       | Ground for the Analog Output           |
| E         | Input (analog or digital)                  | BZ       | Block Discharge                        |
| T         | Teach Input                                | Amv      | 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                        | SY-      | Ground for the Synchronization         |
| RDY       | Ready                                      | E+       | Receiver-Line                          |
| GND       | Ground                                     | S+       | Emitter-Line                           |
| CL        | Clock                                      | ±        | Grounding                              |
| E/A       | Output/Input programmable                  | SnR      | Switching Distance Reduction           |
| IO-Link   | IO-Link                                    | Rx+/-    | Ethernet Receive Path                  |
| PoE       | Power over Ethernet                        | Tx+/-    | Ethernet Send Path                     |
| IN        | Safety Input                               | Bus      | Interfaces-Bus A(+)/B(-)               |
| OSSD      | Safety Output                              | La       | Emitted Light disengageable            |
| Signal    | Signal Output                              | Mag      | Magnet activation                      |
| BI_D+/-   | Ethernet Gigabit bidirect. data line (A-D) | RES      | Input confirmation                     |
| ENo RS422 | Encoder 0-pulse 0/0 (TTL)                  | EDM      | Contactor Monitoring                   |
| PT        | Platinum measuring resistor                | ENARs422 | Encoder A/Ā (TTL)                      |
|           |  |          | Encoder B/Ĕ (TTL)                      |
|           |  |          | Encoder A                              |
|           |  |          | Encoder B                              |
|           |  |          | Digital output MIN                     |
|           |  |          | Digital output MAX                     |
|           |  |          | Digital output OK                      |
|           |  |          | Synchronization In                     |
|           |  |          | Synchronization OUT                    |
|           |  |          | Brightness output                      |
|           |  |          | Maintenance                            |
|           |  |          | Reserved                               |
|           |  |          | Wire Colors according to DIN IEC 60757 |
|           |  |          | 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

