## Inductive Sensor with Increased Switching Distance

## **I1CH003**

Part Number



**Technical Data** 

| Switching Distance                             | 3 mm           |  |  |
|--|----------------|--|--|
| Correction Factors Stainless Steel V2A/CuZn/Al | 1,26/0,65/0,64 |  |  |
| Mounting                                       | flush          |  |  |
| Mounting A/B/C/D in mm                         | 0/10/9/0       |  |  |
| Mounting B1 in mm                              | 04             |  |  |
| Switching Hysteresis                           | < 10 %         |  |  |
| Electrical Data                                |                |  |  |
| Supply Voltage                                 | 1030 V DC      |  |  |
| Current Consumption (Ub = 24 V)                | < 10 mA        |  |  |
| Switching Frequency                            | 920 Hz         |  |  |
| Temperature Drift                              | < 10 %         |  |  |
| Temperature Range                              | -4080 °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        |  |  |
| Full Encapsulation                             | yes            |  |  |
| Degree of Protection                           | IP67           |  |  |
| Connection                                     | M8 × 1; 3-pin  |  |  |
| Safety-relevant Data                           |                |  |  |
| MTTFd (EN ISO 13849-1)                         | 3706,54 a      |  |  |
| Function                                       |                |  |  |
| Error Indicator                                | yes            |  |  |
| PNP NO   |                |  |  |
| Connection Diagram No.                         | 102            |  |  |
| Suitable Connection Equipment No.              | 8              |  |  |
|  |                |  |  |

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

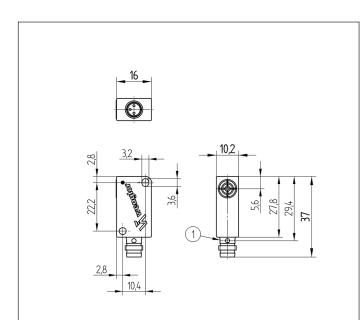
Inductive Sensors with increased switching distances are distinguished by rugged design, easy installation and reliable measured values. The large range makes additional types of sensor superfluous because they can also be used to implement special applications. In addition to error-free operation of 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.

**Complementary Products** 

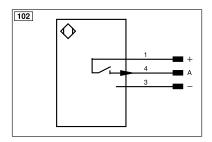
PNP-NPN Converter BG8V1P-N-2M

weproTec





## 1 = Switching Status Indicator Screw M3 = 0,5 Nm All dimensions in mm (1 mm = 0.03937 Inch)



| Legend    |  |          |                                |  |                     |
|-----------|--|----------|--------------------------------|--|---------------------|
| +         | Supply Voltage +                           | nc       | Not connected                  | ENBRS422                               | Encoder B/B (TTL)   |
| -         | Supply Voltage 0 V                         | U        | Test Input                     | ENA                                    | Encoder A           |
| ~         | Supply Voltage (AC Voltage)                | Ū        | Test Input inverted            | ENв                                    | Encoder B           |
| A         | Switching Output (NO)                      | W        | Trigger Input                  | Amin                                   | Digital output MIN  |
| Ā         | Switching Output (NC)                      | W-       | Ground for the Trigger Input   | Amax                                   | Digital output MAX  |
| V         | Contamination/Error Output (NO)            | 0        | Analog Output                  | Аок                                    | Digital output OK   |
| V         | Contamination/Error Output (NC)            | O-       | Ground for the Analog Output   | SY In                                  | Synchronization In  |
| E         | Input (analog or digital)                  | BZ       | Block Discharge                | SY OUT                                 | Synchronization OUT |
| Т         | Teach Input                                | Amv      | Valve Output                   | Olt                                    | Brightness output   |
| Z         | Time Delay (activation)                    | а        | Valve Control Output +         | M                                      | Maintenance         |
| S         | Shielding                                  | b        | Valve Control Output 0 V       | rsv                                    | Reserved            |
| RxD       | Interface Receive Path                     | SY       | Synchronization                | Wire Colors according to DIN IEC 60757 |                     |
| TxD       | Interface Send Path                        | SY-      | Ground for the Synchronization | BK                                     | Black               |
| RDY       | Ready                                      | E+       | Receiver-Line                  | BN                                     | Brown               |
| GND       | Ground                                     | S+       | Emitter-Line                   | RD                                     | Red                 |
| CL        | Clock                                      | -        | Grounding                      | OG                                     | Orange              |
| E/A       | Output/Input programmable                  | SnR      | Switching Distance Reduction   | YE                                     | Yellow              |
| ۲         | IO-Link                                    | Rx+/-    | Ethernet Receive Path          | GN                                     | Green               |
| PoE       | ower over Ethernet                         | Tx+/-    | Ethernet Send Path             | BU                                     | Blue                |
| IN        | Safety Input                               | Bus      | Interfaces-Bus A(+)/B(-)       | VT                                     | Violet              |
| OSSD      | Safety Output                              | La       | Emitted Light disengageable    | GY                                     | Grey                |
| Signal    | Signal Output                              | Mag      | Magnet activation              | WH                                     | White               |
| BI_D+/-   | Ethernet Gigabit bidirect. data line (A-D) | RES      | Input confirmation             | PK                                     | Pink                |
| EN0 RS422 | Encoder 0-pulse 0/0 (TTL)                  | EDM      | Contactor Monitoring           | GNYE                                   | Green/Yellow        |
| PT        | Platinum measuring resistor                | ENARS422 | Encoder A/Ā (TTL)              |  |                     |

## Mounting

