

Inductive Sensor with Increased Switching Distance

I12H053

Part Number



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

Technical Data

Inductive Data

| | |
|--|----------------|
| Switching Distance | 4 mm |
| Correction Factors Stainless Steel V2A/CuZn/Al | 1,02/0,54/0,52 |
| Mounting | flush |
| Mounting A/B/C/D in mm | 0/8/12/0 |
| Mounting B1 in mm | 0..2 |
| Switching Hysteresis | < 10 % |

Electrical Data

| | |
|--|--------------|
| Supply Voltage | 10...30 V DC |
| Current Consumption (Ub = 24 V) | < 7 mA |
| Switching Frequency | 1150 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 |

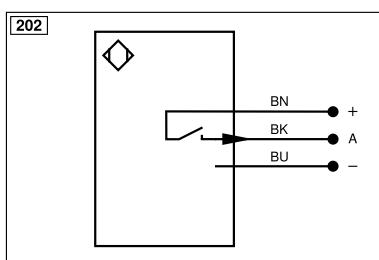
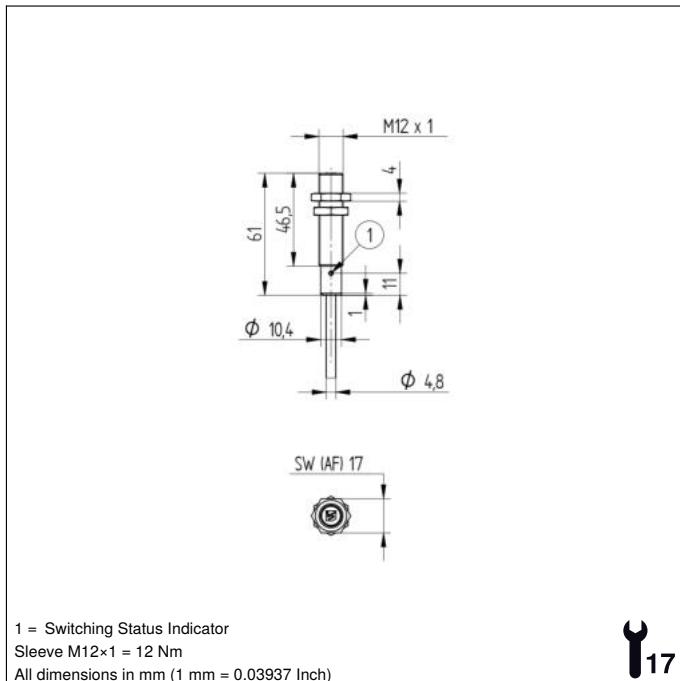
Function

| | |
|----------------------------------|-----------|
| Error Indicator | yes |
| PNP NO | ● |
| Connection Diagram No. | 202 |
| Suitable Mounting Technology No. | 170 171 |

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

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.

weproTec



| Legend | | | | | |
|---------------------|--|-----------------------|--------------------------------|--|---------------------|
| + | Supply Voltage + | nc | Not connected | EN _{RS422} | Encoder B/Ā (TTL) |
| - | Supply Voltage 0 V | U | Test Input | EN _A | Encoder A |
| ~ | Supply Voltage (AC Voltage) | Ū | Test Input inverted | EN _B | 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) | O | Analog Output | AOK | Digital output OK |
| ĀV | 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 |
| T | Teach Input | AMV | Valve Output | OLT | Brightness output |
| Z | Time Delay (activation) | a | 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 |
| IO-Link | over Ethernet | Rx+/- | Ethernet Receive Path | GN | Green |
| PoE | 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 |
| EN _{RS422} | Encoder 0-pulse 0/0 (TTL) | EDM | Contactor Monitoring | GNYE | Green/Yellow |
| PT | Platinum measuring resistor | FNAs _{RS422} | Encoder A/Ā (TTL) | | |

Mounting

