

Inductive Sensor with Standard Switching Distances

I30N005

Part Number

weproTec



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

Inductive Sensors with standard switching distances are distinguished by rugged design, easy installation and reliable measured values. 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 | 10 mm |
| Correction Factors Stainless Steel V2A/CuZn/Al | 1,18/0,5/0,46 |
| Mounting | flush |
| Mounting A/B/C/D in mm | 0/20/30/0 |
| Mounting B1 in mm | 0...10 |
| Switching Hysteresis | < 10 % |

Electrical Data

| | |
|---|--------------|
| Supply Voltage | 10...30 V DC |
| Current Consumption (U _b = 24 V) | < 10 mA |
| Switching Frequency | 580 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

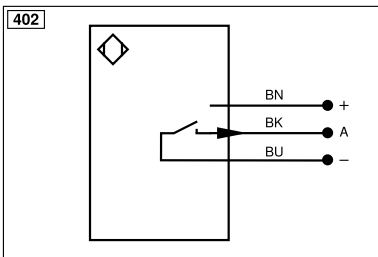
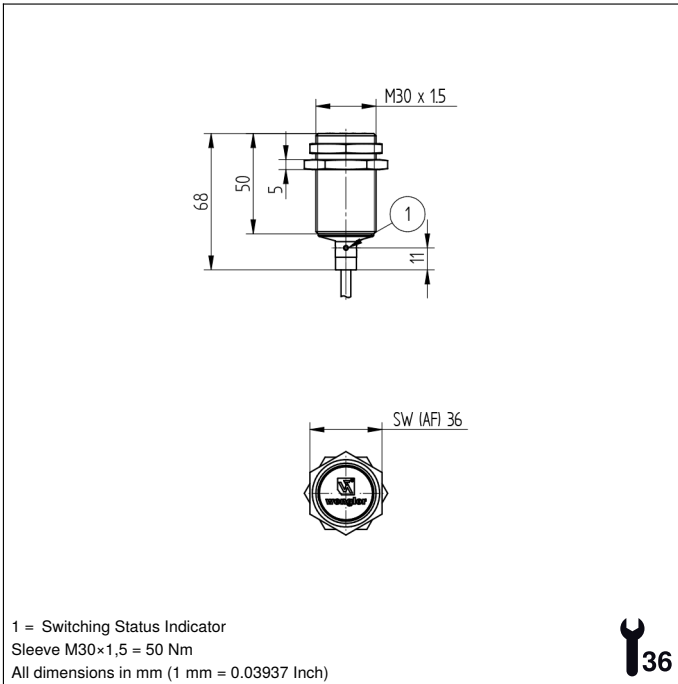
402

Connection Diagram No.

Suitable Mounting Technology No.

130 131

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



| Legend | | | | | |
|-----------|--|----------|--------------------------------|--|---------------------|
| + | Supply Voltage + | nc | Not connected | ENBRS422 | Encoder B/B̄ (TTL) |
| - | Supply Voltage 0 V | U | Test Input | ENA | Encoder A |
| ~ | Supply Voltage (AC Voltage) | Ū | Test Input inverted | ENb | 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 |
| ȳ | 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 | IO-Link | Rx+/- | Ethernet Receive Path | GN | Green |
| PoE | Power 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 |
| ENo RS422 | Encoder 0-pulse 0/0̄ (TTL) | EDM | Contactor Monitoring | GNYE | Green/Yellow |
| PT | Platinum measuring resistor | ENARs422 | Encoder A/Ā (TTL) | | |

