# Inductive Sensor
**with Standard Switching Distances**

# I18N005
Part Number

weproTec

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

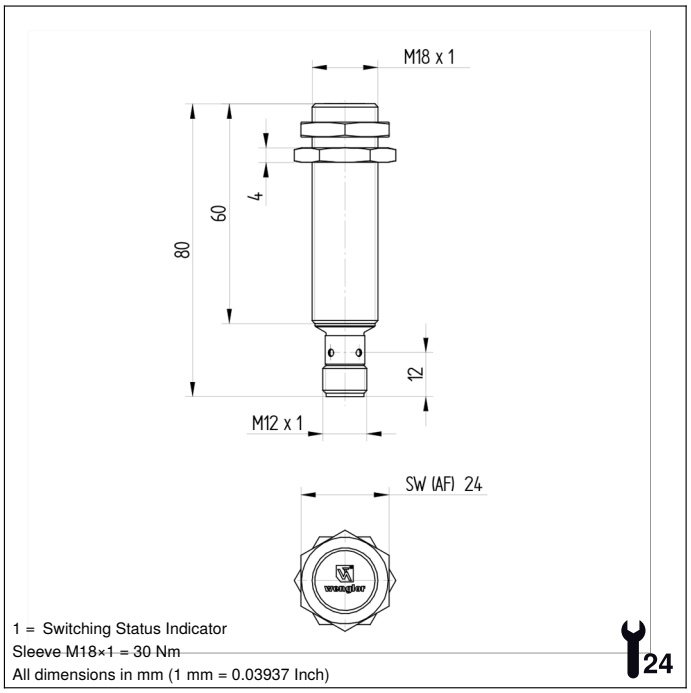
Inductive Sensors with standard switching distances are distinguished by rugged design, easy installation and reliable measured values. In addition to error-free operation of several sensors in a very small space, the new generation also provides the possibility of detecting system errors before it's too late thanks to ASIC und wenglor weproTec.

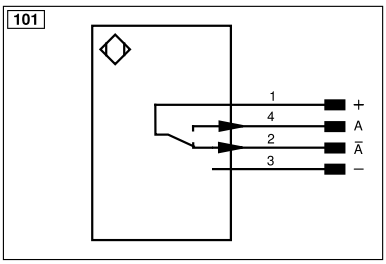
## Technical Data

| | |
|---|---|
| **Inductive Data** | |
| Switching Distance | 5 mm |
| Correction Factors Stainless Steel V2A/CuZn/Al | 1,10/0,45/0,41 |
| Mounting | flush |
| Mounting A/B/C/D in mm | 0/24/8/0 |
| Mounting B1 in mm | 0...12 |
| Switching Hysteresis | < 10 % |
| **Electrical Data** | |
| Supply Voltage | 10...30 V DC |
| Current Consumption (Ub = 24 V) | < 12 mA |
| Switching Frequency | 1110 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 |
| Full Encapsulation | yes |
| Degree of Protection | IP67 |
| Connection | M12 × 1; 4-pin |
| **Safety-relevant Data** | |
| MTTFd (EN ISO 13849-1) | 3706,54 a |
| **Function** | |
| Error Indicator | yes |
| PNP NC, PNP NO | ● |
| Connection Diagram No. | 101 |
| Suitable Connection Equipment No. | 2 |
| Suitable Mounting Technology No. | 150 151 |

## Complementary Products

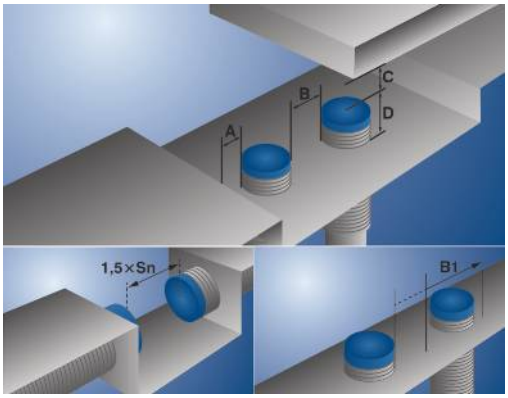
| |
|---|
| PNP-NPN Converter BG2V1P-N-2M |




| 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 |
| V̄ | 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 | 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 0/0̄ (TTL) | EDM | Contactor Monitoring | GNYE | Green/Yellow |
| PT | Platinum measuring resistor | ENARS422 | Encoder A/Ā (TTL) | | |

## Mounting




Specifications are subject to change without notice V0-31.03.2023

Pobrano z: https://automatyka-sklep.eu/czujnik-indukcyjny-m18-pnp-5-mm-i18n005-wenglor