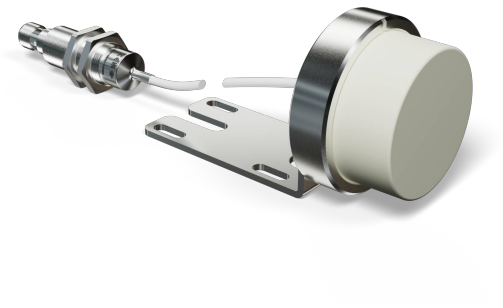
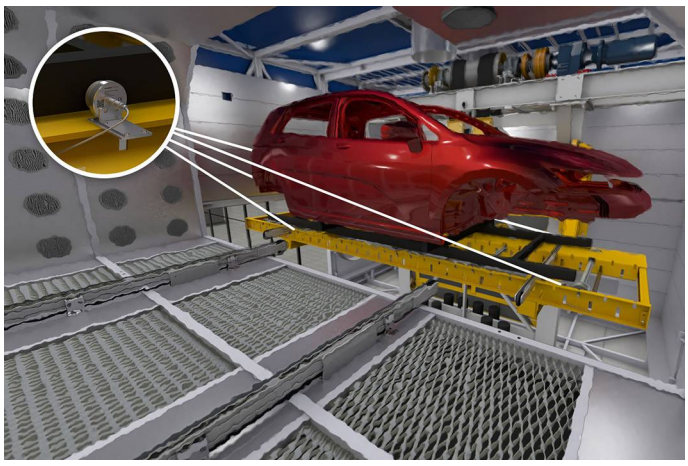
# Inductive Sensor
**for Extreme Temperature Ranges**

# INTT311
Part Number



- **Easy replacement thanks to quick-release fastener**
- **High tightness**
- **Long service life at temperatures of up to 250 °C**
- **Minimal mounting clearance thanks to wenglor we-proTec**
- **Switching distance configurable via IO-Link**

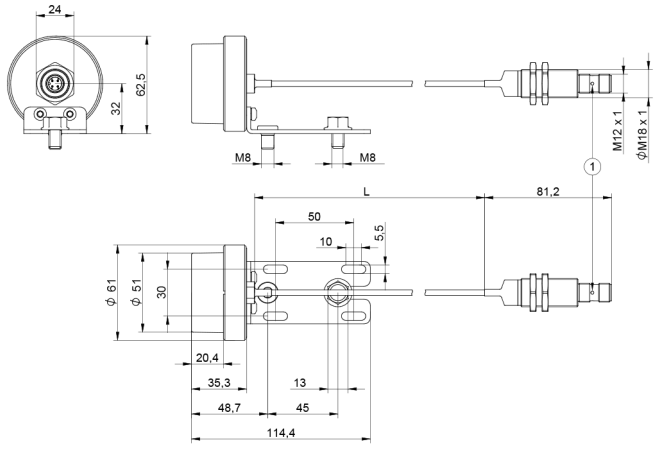


## Technical Data

| | |
|---|---|
| **Inductive Data** | |
| Switching Distance | 40 mm |
| Standard Target | 120 × 120 mm |
| Correction Factors Stainless Steel V2A/CuZn/Al | 1,10/0,65/0,58 |
| Mounting | Non-flush |
| Mounting A/B/C/D in mm | 30/130/80/20 |
| Mounting B1 in mm | 0...70 |
| Switching Hysteresis | < 10 % |
| **Electrical Data** | |
| Supply Voltage | 10...30 V DC |
| Supply Voltage with IO-Link | 18...30 V DC |
| Current Consumption (Ub = 24 V) | < 15 mA |
| Switching Frequency | 50 Hz |
| Temperature Drift | < 10 % |
| Sensor head temperature range | -10...250 °C |
| Analysis module temperature range | 0...70 °C |
| Number of Switching Outputs | 2 |
| Switching Output Voltage Drop | < 1,5 V |
| Switching Output/Switching Current | 100 mA |
| Residual Current Switching Output | < 100 µA |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Interface | IO-Link V1.1 |
| Protection Class | III |
| Service Life (T = +200 °C) | 100000 h |
| Service Life (T = +250 °C) | 60000 h |
| **Mechanical Data** | |
| Sensing face | Plastic, PEEK |
| Sensor head material | Stainless steel, V2A (1.4305 / 303) |
| Analysis module material | Stainless steel, V2A (1.4305 / 303) |
| Degree of Protection | IP65 |
| Connection | M12 × 1; 4-pin |
| Cable length (L) | 20 m |
| Cable Jacket Material | Plastic, PFA |
| Outer diameter cable | 3,4 mm |
| Bending Radius | > 17 mm |
| PWIS-free | yes |
| **Safety-relevant Data** | |
| MTTFd (EN ISO 13849-1) | 3706,54 a |
| **Function** | |
| Error Indicator | yes |
| Programmable switching distance | 30/35/40 mm |
| | 1 × initial start-up instructions<br>1 × MUTTER-M18-E003 hex nut<br>1 × sensor |
| IO-Link | ● |
| Error Output | ● |
| PNP NO | ● |
| Connection Diagram No. | 704 |
| Suitable Connection Equipment No. | 2 |
| Suitable Mounting Technology No. | 150 |

## Complementary Products

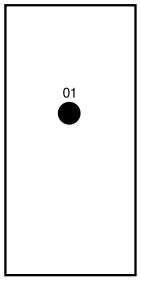
| |
|---|
| IO-Link Master |
| Software |




1 = Switching Status Indicator
All dimensions in mm (1 mm = 0.03937 Inch)

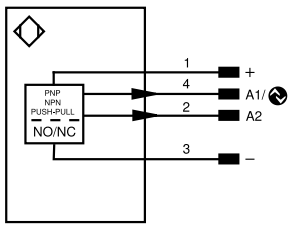
## Ctrl. Panel

B3



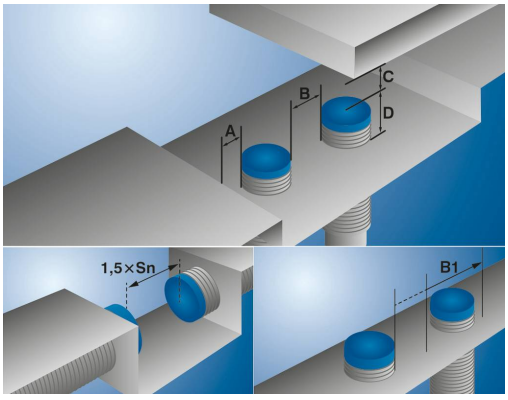

01 = Switching Status Indicator

704




| Legend | | | | | |
|---|---|---|---|---|---|
| + | Supply Voltage + | PT | Platinum measuring resistor | ENARS422 | Encoder A/Ā (TTL) |
| – | Supply Voltage 0 V | nc | Not connected | ENBRS422 | Encoder B/B̄ (TTL) |
| ~ | Supply Voltage (AC Voltage) | U | Test Input | ENA | Encoder A |
| A | Switching Output (NO) | Ū | Test Input inverted | ENB | Encoder B |
| Ā | Switching Output (NC) | W | Trigger Input | AMIN | Digital output MIN |
| V | Contamination/Error Output (NO) | W– | Ground for the Trigger Input | AMAX | Digital output MAX |
| V̄ | Contamination/Error Output (NC) | O | Analog Output | AOK | Digital output OK |
| E | Input (analog or digital) | O– | Ground for the Analog Output | SY In | Synchronization In |
| T | Teach Input | BZ | Block Discharge | SY OUT | Synchronization OUT |
| R | Reset 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/Ō (TTL) | EDM | Contactor Monitoring | GNYE | Green/Yellow |

## Mounting




Specifications are subject to change without notice V1-16.04.2026