

High-Performance Distance Sensor

OY2TA104P0150C

LASER

Industrial Ethernet WinTec

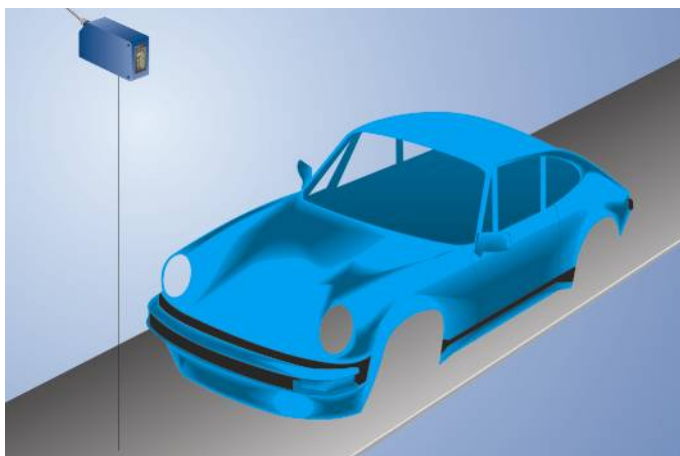
Part Number



- Industrial Ethernet
- Reliable in case of glossy objects with WinTec
- Secure detection of black objects also in extremely inclined positions with WinTec
- Web server and graphic display for simple operation

These sensors have scratch-resistant optics and the emitted light can be switched off. They use the transit time measurement principle to measure the distance between the sensor and the object.

Sensors with Industrial Ethernet make the analog and digital input cards at control units unnecessary, as all service and measurement data is read, analyzed and processed in the control unit in real time, without the need for conversion. Power over Ethernet connects data transfer and power supply in one cable and thus reduces the wiring effort.



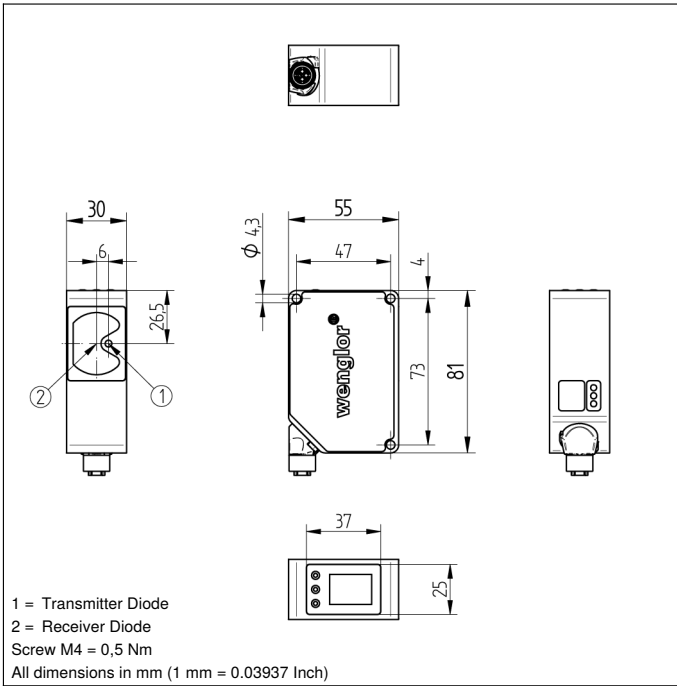
Technical Data

| Optical Data | |
|-----------------------------------|------------------------|
| Working Range | 0,1...10,1 m |
| Reproducibility maximum | 7 mm |
| Linearity Deviation | 20 mm |
| Light Source | Laser (red) |
| Wavelength | 660 nm |
| Service Life (T = +25 °C) | 100000 h |
| Laser Class (EN 60825-1) | 1 |
| Beam Divergence | < 2 mrad |
| Max. Ambient Light | 5000 Lux |
| Light Spot Diameter | see Table 1 |
| Electrical Data | |
| Port Type | 100BASE-TX |
| PoE Class | 1 |
| Response Time | 10 ms |
| Temperature Range | -25...50 °C |
| Reverse Polarity Protection | yes |
| Interface | EtherCAT |
| Protection Class | III |
| Mechanical Data | |
| Setting Method | Menu (OLED) |
| Housing Material | Plastic |
| Degree of Protection | IP68 |
| Connection | M12 × 1; 8-pin, X-cod. |
| Web server | yes |
| EoE (Ethernet over EtherCAT) | yes |
| EtherCAT | ● |
| Connection Diagram No. | 001 |
| Control Panel No. | X2 T14 |
| Suitable Connection Equipment No. | 50 |
| Suitable Mounting Technology No. | 340 |

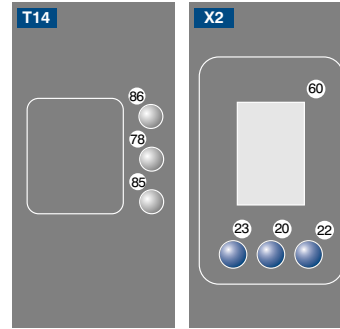
Display brightness may decrease with age. This does not result in any impairment of the sensor function.

Complementary Products

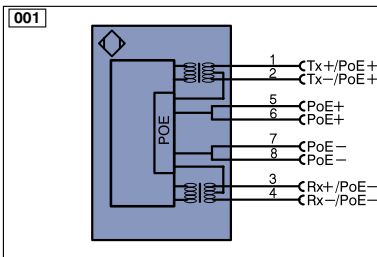
| |
|------------------------------------|
| Midspan Adapter Z0029 |
| Set Protective Housing ZST-NN-02 |
| Switch/Junction with PoE ZAC50xN0x |



Ctrl. Panel



- 20 = Enter Button
- 22 = UP Button
- 23 = Down Button
- 60 = Display
- 78 = Module status
- 85 = Link/Act LED
- 86 = STATUS



| Legend | | | | | |
|-----------------------|--|------------------|--------------------------------|--------------------------------------|---------------------|
| + | Supply Voltage + | PT | Platinum measuring resistor | EN ^A ES42Z | Encoder A/Ā (TTL) |
| - | Supply Voltage 0 V | nc | not connected | EN ^B ES42Z | Encoder B/B̄ (TTL) |
| ~ | Supply Voltage (AC Voltage) | U | Test Input | EN ^A | Encoder A |
| A | Switching Output (NO) | Ū | Test Input inverted | EN ^B | Encoder B |
| Ā | Switching Output (NC) | W | Trigger Input | A _{MIN} | Digital output MIN |
| V | Contamination/Error Output (NO) | W- | Ground for the Trigger Input | A _{MAX} | Digital output MAX |
| Ṽ | Contamination/Error Output (NC) | O | Analog Output | A _{OK} | 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 |
| Z | Time Delay (activation) | AWV | Valve Output | OLT | Brightness output |
| S | Shielding | a | Valve Control Output + | M | Maintenance |
| RxD | Interface Receive Path | b | Valve Control Output 0 V | rsv | reserved |
| TxD | Interface Send Path | SY | Synchronization | Wire Colors according to DIN IEC 757 | |
| RDY | Ready | SY- | Ground for the Synchronization | BK | Black |
| GND | Ground | E+ | Receiver-Line | BN | Brown |
| CL | Clock | S+ | Emitter-Line | RD | Red |
| E/A | Output/Input programmable | ⊕ | Grounding | OG | Orange |
| | IO-Link | S _n R | Switching Distance Reduction | YE | Yellow |
| PoE | Power over Ethernet | Rx+/- | Ethernet Receive Path | GN | Green |
| IN | Safety Input | Tx+/- | Ethernet Send Path | BU | Blue |
| OSSD | Safety Output | Bus | Interfaces-Bus A(+)/B(-) | VT | Violet |
| Signal | Signal Output | L _a | Emitted Light disengageable | GY | Grey |
| Bl_D+/- | Ethernet Gigabit bidirect. data line (A-D) | Mag | Magnet activation | WH | White |
| EN ⁰ ES42Z | Encoder 0-pulse 0-0̄ (TTL) | RES | Input confirmation | PK | Pink |
| | | EDM | Contactur Monitoring | GNVE | Green/Yellow |

Table 1

| Working Distance | 0 m | 10 m |
|---------------------|------|---------|
| Light Spot Diameter | 5 mm | < 20 mm |

