

Laser Distance Sensor

Triangulation

P3PC362

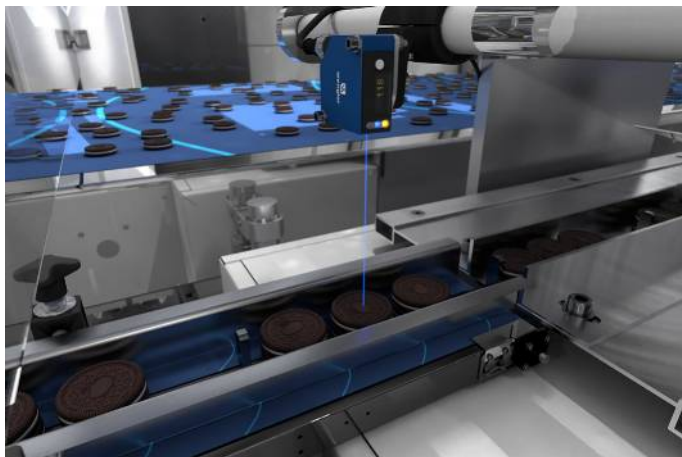
Part Number

inspect
award 2024



- 2 mutually independent switching outputs
- Integrated jump detection
- Intuitive operating concept
- Rugged aluminium housing
- Switching point independent of material, color and brightness

These laser distance sensors work with a fine blue light beam and a high-resolution CMOS line. They determine the distance between the sensor and the object by means of the triangulation principle. Thanks to the integrated TripleA technology, the sensors offer high precision, temperature stability and material independence. This means they deliver accurate results even with objects of different materials, colors and shapes, as well as in fluctuating light and temperature conditions. The blue laser light enables enhanced performance on challenging surfaces. Settings are entered via the easy-to-read OLED display or via Bluetooth using the weCon app.



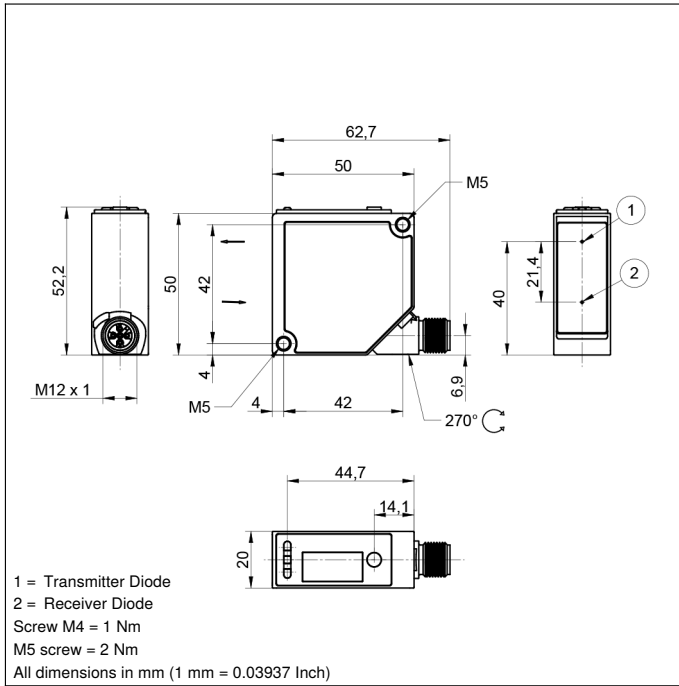
Technical Data

| Optical Data | |
|---|-----------------------|
| Working Range | 60...660 mm |
| Setting Range | 60...660 mm |
| Reproducibility maximum | 250 μ m |
| Reproducibility: 1 Sigma | 25 μ m |
| Linearity Deviation | 900 μ m |
| Switching Hysteresis | < 0,5 % |
| Light Source | Laser (blue) |
| Wavelength | 405 nm |
| Service Life (T = +25 °C) | 100000 h |
| Laser Class (EN 60825-1) | 2 |
| Max. Ambient Light | 5000 Lux |
| Light Spot Diameter | see Table 1 |
| Electrical Data | |
| Supply Voltage | 18...30 V DC |
| Current Consumption (U _b = 24 V) | < 60 mA |
| Switching Frequency | 650 Hz |
| Response Time | < 0,5 ms |
| Temperature Drift | < 50 μ m/K |
| Temperature Range | 0...60 °C |
| Number of Switching Outputs | 2 |
| Switching Output Voltage Drop | < 1,5 V |
| Switching Output/Switching Current | 100 mA |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Interface | IO-Link V1.1 |
| IO-Link Version | 1.1 |
| IO-Link transmission speed | COM3 |
| Protection Class | III |
| FDA Accession Number | 2310698-000 |
| Mechanical Data | |
| Setting Method | (OLED)/Bluetooth menu |
| Housing Material | Aluminum, anodised |
| Housing Material | Plastic, ABS |
| Degree of Protection | IP67 |
| Connection | M12 \times 1; 5-pin |
| Optic Cover | Plastic, PMMA |
| Safety-relevant Data | |
| MTTFd (EN ISO 13849-1) | 428,06 a |
| NPN NO | ● |
| IO-Link | ● |
| Connection Diagram No. | 243 |
| Control Panel No. | X7 |
| Suitable Connection Equipment No. | 2 35 |
| Suitable Mounting Technology No. | 380 |

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

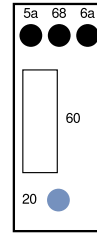
Complementary Products

| |
|-------------------|
| IO-Link Master |
| Protective Screen |
| Software |

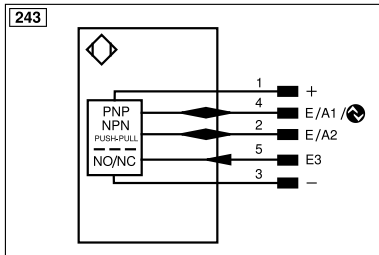


Ctrl. Panel

X7



- 20 = Enter key
- 5a = Switching Status Indicator, A1
- 60 = display
- 68 = Power LED
- 6a = Switching Status Indicator, A2



| Legend | | | | | |
|-----------------------|--|----------------------|--------------------------------|--|---------------------|
| + | Supply Voltage + | nc | Not connected | EN _{BRS422} | Encoder B/B̄ (TTL) |
| - | Supply Voltage 0 V | U | Test Input | ENA | Encoder A |
| ~ | Supply Voltage (AC Voltage) | Ü | 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 |
| 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 | 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 |
| EN _o RS422 | Encoder 0-pulse 0/0̄ (TTL) | EDM | Contactor Monitoring | GNYE | Green/Yellow |
| PT | Platinum measuring resistor | EN _{ARS422} | Encoder A/Ā (TTL) | | |

Table 1

| Working Distance | 60 mm | 360 mm | 660 mm |
|---------------------|--------|--------|--------|
| Light Spot Diameter | 1,5 mm | 1 mm | 0,5 mm |

