

Through-Beam Sensor

ZW2003 LASER

Part Number



- Laser light
- Test input

Technical Data

| Optical Data | |
|---------------------------|-------------|
| Range | 20000 mm |
| Light Source | Laser (red) |
| Wavelength | 655 nm |
| Service Life (T = +25 °C) | 100000 h |
| Laser Class (EN 60825-1) | 2 |
| Beam Divergence | 10 mrad |

| Electrical Data | |
|---|--------------|
| Sensor Type | Emitter |
| Supply Voltage | 10...30 V DC |
| Current Consumption (U _b = 24 V) | < 15 mA |
| Temperature Drift | < 10 % |
| Temperature Range | -25...60 °C |
| Reverse Polarity Protection | yes |
| Protection Class | III |
| FDA Accession Number | 0820360-000 |

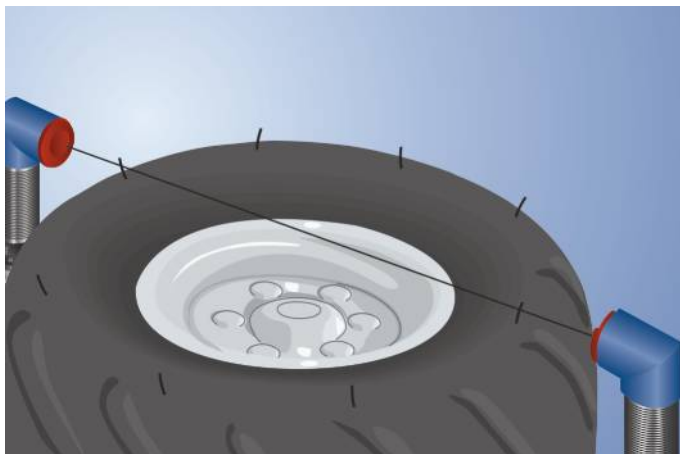
| Mechanical Data | |
|----------------------|-----------------|
| Housing Material | Stainless Steel |
| Full Encapsulation | yes |
| Degree of Protection | IP67 |
| Connection | M12 × 1; 4-pin |

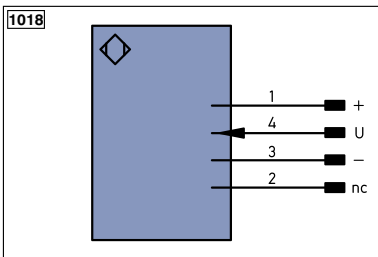
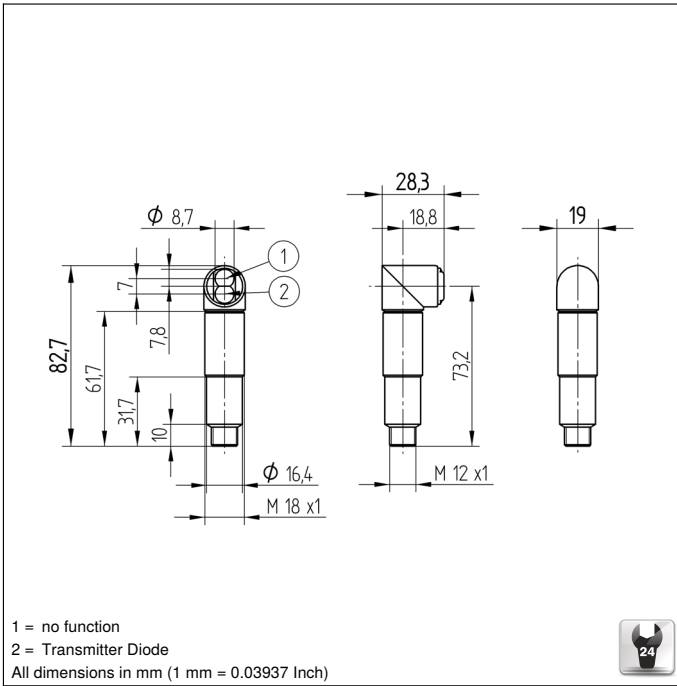
| | |
|-----------------------------------|-------------|
| Connection Diagram No. | 1018 |
| Suitable Connection Equipment No. | 2 |
| Suitable Mounting Technology No. | 150 |

Suitable Receiver

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|-----------|
| ZW200NCT3 |
| ZW200PCT3 |

These through-beam sensors are best suited for use in industrial environments. Thanks to their large working range, the devices demonstrate excellent functional reliability in highly contaminated environments. The sensors can be checked for correct functioning via the test input.

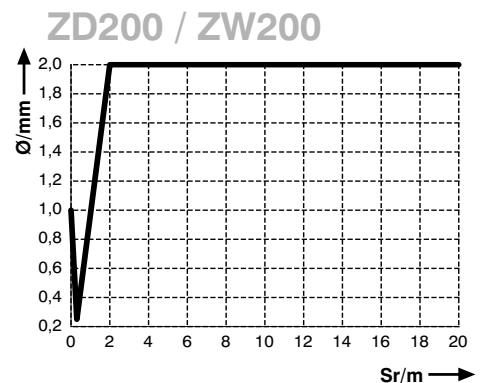




| Legend | | | |
|----------------------|--|--------------------------------------|--------------------------------|
| + | Supply Voltage + | PT | Platinum measuring resistor |
| - | Supply Voltage 0 V | nc | not connected |
| ~ | Supply Voltage (AC Voltage) | U | Test Input |
| A | Switching Output (NO) | Ū | Test Input inverted |
| Ā | Switching Output (NC) | W | Trigger Input |
| V | Contamination/Error Output (NO) | W- | Ground for the Trigger Input |
| Ṽ | Contamination/Error Output (NC) | O | Analog Output |
| E | Input (analog or digital) | O- | Ground for the Analog Output |
| T | Teach Input | BZ | Block Discharge |
| Z | Time Delay (activation) | AMV | Valve Output |
| S | Shielding | a | Valve Control Output + |
| RxD | Interface Receive Path | b | Valve Control Output 0 V |
| TxD | Interface Send Path | SY | Synchronization |
| RDY | Ready | SY- | Ground for the Synchronization |
| GND | Ground | E+ | Receiver-Line |
| CL | Clock | S+ | Emitter-Line |
| E/A | Output/Input programmable | ± | Grounding |
| | IO-Link | S _n R | Switching Distance Reduction |
| PoE | Power over Ethernet | Rx+/- | Ethernet Receive Path |
| IN | Safety Input | Tx+/- | Ethernet Send Path |
| OSSD | Safety Output | Bus | Interfaces-Bus A(+)/B(-) |
| Signal | Signal Output | L _a | Emitted Light disengageable |
| Bl_D+/- | Ethernet Gigabit bidirect. data line (A-D) | Mag | Magnet activation |
| EN0 _{RS422} | Encoder 0-pulse 0-0 (TTL) | RES | Input confirmation |
| | | EDM | Contacting Monitoring |
| | | EN _{RS422} | Encoder A/Ā (TTL) |
| | | EN _{RS422} | Encoder B/B̄ (TTL) |
| | | EN _A | Encoder A |
| | | EN _B | Encoder B |
| | | A _{MIN} | Digital output MIN |
| | | A _{MAX} | Digital output MAX |
| | | A _{OK} | Digital output OK |
| | | SY _{in} | Synchronization In |
| | | SY _{OUT} | Synchronization OUT |
| | | OL _T | Brightness output |
| | | M | Maintenance |
| | | rsv | reserved |
| | | Wire Colors according to DIN IEC 757 | |
| | | BK | Black |
| | | BN | Brown |
| | | RD | Red |
| | | OG | Orange |
| | | YE | Yellow |
| | | GN | Green |
| | | BU | Blue |
| | | VT | Violet |
| | | GY | Grey |
| | | WH | White |
| | | PK | Pink |
| | | GNVE | Green/Yellow |

Smallest Recognizable Part

Based on the Distance between Emitter and Receiver



Sr = Switching Distance

Ø = Diameter, Smallest Recognizable Part

