

Retro-Reflex Sensor

XM98PAH2 LASER

Part Number

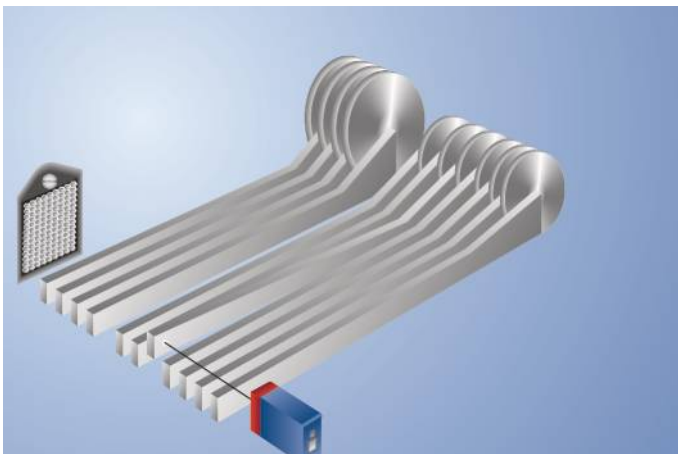


- Range: 15 m
- Smallest recognizable part: 2,5 mm
- Switching frequency: 3 kHz
- Time delay

Technical Data

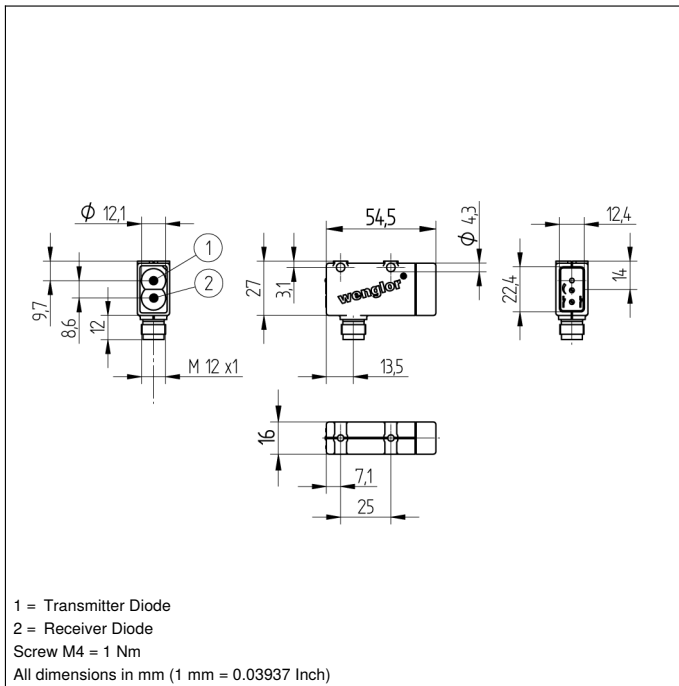
| Optical Data | |
|---|-----------------------|
| Range | 15000 mm |
| Reference Reflector/Reflector Foil | RQ100BA |
| Min. Distance to Reflector | 80 mm |
| Smallest Recognizable Part | > 2500 μ m |
| Switching Hysteresis | < 15 % |
| Light Source | Laser (red) |
| Wavelength | 655 nm |
| Polarization Filter | yes |
| Service Life (T = +25 °C) | 100000 h |
| Laser Class (EN 60825-1) | 2 |
| Max. Ambient Light | 10000 Lux |
| Opening Angle | 0,6 ° |
| Light Spot Diameter | see Table 1 |
| Two-Lens Optic | yes |
| Electrical Data | |
| Supply Voltage | 10...30 V DC |
| Current Consumption (U _b = 24 V) | < 30 mA |
| Switching Frequency | 3 kHz |
| Response Time | 166 μ s |
| Off-Delay | 5 ms |
| Temperature Drift | < 10 % |
| Temperature Range | -10...60 °C |
| Switching Output Voltage Drop | < 2,5 V |
| PNP Switching Output/Switching Current | 200 mA |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Protection Class | III |
| Mechanical Data | |
| Setting Method | Potentiometer |
| Housing Material | Plastic |
| Full Encapsulation | yes |
| Degree of Protection | IP67 |
| Connection | M12 \times 1; 4-pin |
| PNP NO/NC antivalent | ● |
| Connection Diagram No. | 101 |
| Control Panel No. | M6 |
| Suitable Connection Equipment No. | 2 |
| Suitable Mounting Technology No. | 360 |

A reflector must be used in combination with these sensors. They can be installed in all kinds of industrial environments thanks to ample functional reserve. Even reflective objects can be reliably recognized through the use of polarized light.

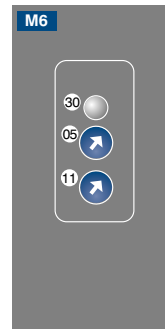


Complementary Products

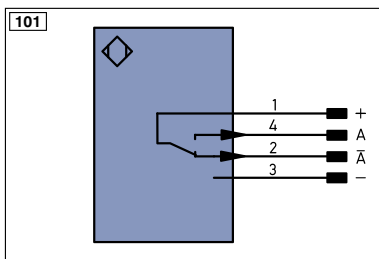
- PNP-NPN Converter BG2V1P-N-2M
- Protective Housing ZSV-0x-01
- Reflector, Reflector Foil
- Set Protective Housing ZSM-NN-02



Ctrl. Panel



05 = Switching Distance Adjuster
 11 = ON-Delay/OFF-Delay Adjuster
 30 = Switching Status/Contamination Warning



| Legend | | Legend | | Legend | |
|-----------------------|--|-----------------|--------------------------------|--------------------------------------|----------------------------|
| + | Supply Voltage + | PT | Platinum measuring resistor | EN ^{A/RS422} | Encoder A/ \bar{A} (TTL) |
| - | Supply Voltage 0 V | nc | not connected | EN ^{B/RS422} | Encoder B/ \bar{B} (TTL) |
| ~ | Supply Voltage (AC Voltage) | U | Test Input | EN ^A | Encoder A |
| A | Switching Output (NO) | \bar{U} | Test Input inverted | EN ^B | Encoder B |
| \bar{A} | 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 |
| \bar{V} | 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) | A ^{MV} | Valve Output | OL ^T | 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 | \pm | Grounding | OG | Orange |
| | IO-Link | S ^{nR} | 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/RS422} | Encoder 0-pulse 0-0 (TTL) | RES | Input confirmation | PK | Pink |
| | | EDM | Contactur Monitoring | GNVE | Green/Yellow |

Table 1

| Working Distance | 0,2 m | 5 m | 10 m |
|---------------------|-------|-------|-------|
| Light Spot Diameter | 5 mm | 35 mm | 70 mm |

Feasible reflector distance

Reflector type, mounting distance

| | | | |
|-----------|--------------|-----------|--------------|
| RQ100BA | 0,08...15 m | RR25_M | 0,15...7 m |
| RE18040BA | 0,1...12 m | RR25KP | 0,1...4 m |
| RQ84BA | 0,08...10 m | RR21_M | 0,1...3,5 m |
| RR84BA | 0,08...12 m | ZRAE02B01 | 0,08...6 m |
| RE9538BA | 0,15...4,5 m | ZRME01B01 | 0,1...2 m |
| RE6151BM | 0,1...10 m | ZRME03B01 | 0,15...8 m |
| RR50_A | 0,08...10 m | ZRMR02K01 | 0,08...2,5 m |
| RE6040BA | 0,08...10 m | ZRMS02_01 | 0,1...3 m |
| RE8222BA | 0,08...8 m | RF505 | 0,2...3 m |
| RR34_M | 0,1...6 m | RF508 | 0,2...3 m |
| RE3220BM | 0,1...6 m | RF258 | 0,2...2,5 m |
| RE6210BM | 0,15...5,5 m | ZRDF_K01 | 0,1...11 m |

