

# Through-Beam Sensor

## P1GE001

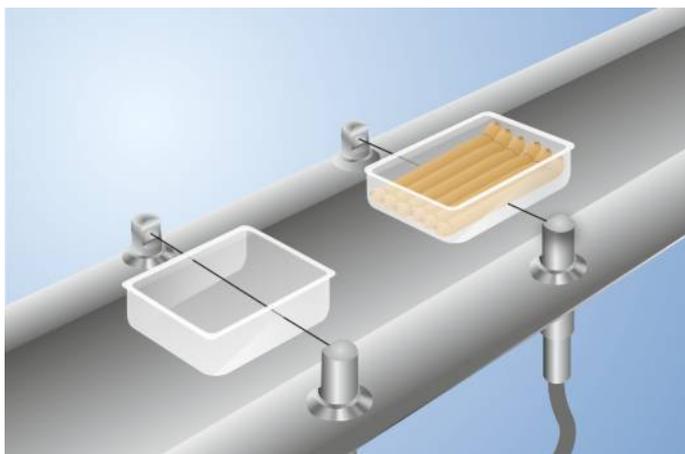
Part Number

InoxSens



- External teach-in
- Hygienic design makes it easy to clean
- Made with food safe materials that are FDA approved
- Waterproof (IP68/IP69K)

InoxSens is the hygiene series from wenglor. The innovative design of InoxSens sensors allows contamination and cleaning agents to flow off by themselves. A variety of components form a complete system which integrates seamlessly into the machine. The laser welded stainless steel housing made of V4A (1.4404/316L) is corrosion-free and resistant to cleaning agents. Gap-free mounting with InoxLock and the captive optics further contribute to these sensors' optimal suitability for cleaning-heavy environments. The configuration of the InoxSens sensors are made through external teach-in.



### Technical Data

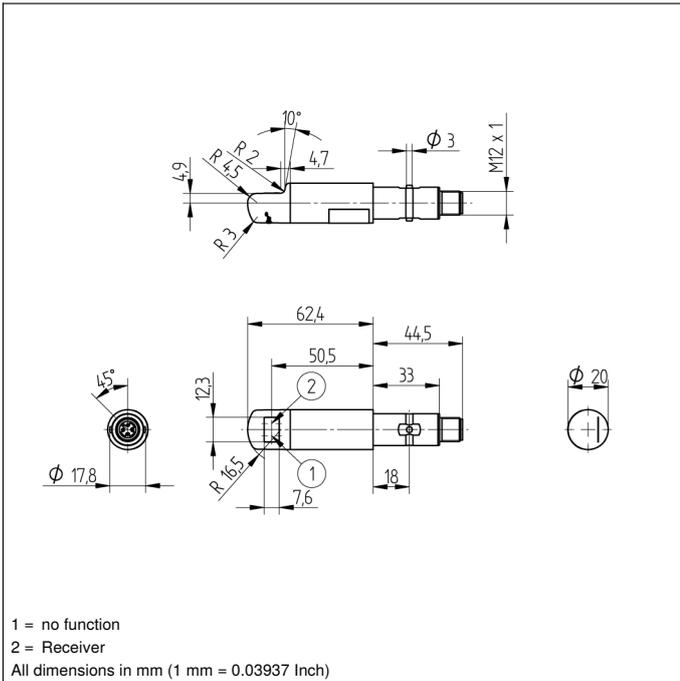
| Optical Data                                |                                     |
|---|-------------------------------------|
| Range                                       | 4000 mm                             |
| Switching Hysteresis                        | < 15 %                              |
| Light Source                                | Red Light                           |
| Service Life (T = +25 °C)                   | 100000 h                            |
| Max. Ambient Light                          | 10000 Lux                           |
| Opening Angle                               | 3 °                                 |
| Electrical Data                             |                                     |
| Sensor Type                                 | Receiver                            |
| Supply Voltage                              | 10...30 V DC                        |
| Current Consumption (U <sub>b</sub> = 24 V) | < 40 mA                             |
| Switching Frequency                         | 500 Hz                              |
| Response Time                               | 1 ms                                |
| Temperature Drift                           | < 10 %                              |
| Temperature Range                           | -25...60 °C                         |
| Switching Output Voltage Drop               | < 2,5 V                             |
| PNP Switching Output/Switching Current      | 200 mA                              |
| Residual Current Switching Output           | < 50 µA                             |
| Short Circuit and Overload Protection       | yes                                 |
| Reverse Polarity Protection                 | yes                                 |
| Teach Mode                                  | NT, MT, XT                          |
| Protection Class                            | III                                 |
| Mechanical Data                             |                                     |
| Setting Method                              | Teach-In                            |
| Housing Material                            | Stainless Steel 316L                |
| Degree of Protection                        | IP68/IP69K                          |
| Connection                                  | M12 × 1; 4-pin                      |
| Optic Cover                                 | PMMA (FDA)                          |
| Ecolab                                      | yes                                 |
| PNP NO/NC switchable                        | <input checked="" type="checkbox"/> |
| RS-232 with Adapterbox                      | <input checked="" type="checkbox"/> |
| Connection Diagram No.                      | 152                                 |
| Control Panel No.                           | Ilo1                                |
| Suitable Connection Equipment No.           | 2                                   |
| Suitable Mounting Technology No.            | 140   490                           |

### Suitable Emitter

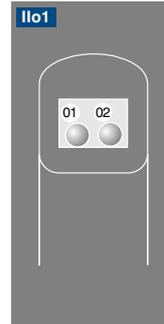
P1GE002

### Complementary Products

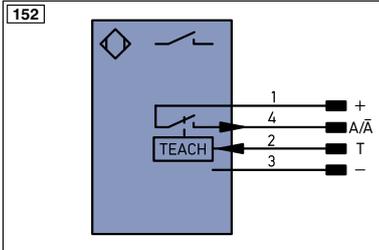
Adapterbox A232  
 PNP-NPN Converter BG2V1P-N-2M  
 Software



### Optic



01 = Switching Status Indicator  
 02 = Contamination Warning



### Legend

|          |  |       |                                |                                      |                      |
|----------|--|-------|--------------------------------|--------------------------------------|----------------------|
| +        | Supply Voltage +                           | PT    | Platinum measuring resistor    | EN1RS42Z                             | Encoder A/Ā (TTL)   |
| -        | Supply Voltage 0 V                         | nc    | not connected                  | EN2RS42Z                             | 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  |
| Z        | Time Delay (activation)                    | AMV   | Valve Output                   | OLT                                  | Brightness output    |
| S        | Shielding                                  | a     | Valve Control Output +         | M                                    | Maintenance reserved |
| 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                                    | SnR   | 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                              | La    | Emitted Light disengageable    | GY                                   | Grey                 |
| Bl_D+/-  | Ethernet Gigabit bidirect. data line (A-D) | Mag   | Magnet activation              | WH                                   | White                |
| EN0RS42Z | Encoder 0-pulse 0-0̄ (TTL)                 | RES   | Input confirmation             | PK                                   | Pink                 |
|          |  | EDM   | Contactur Monitoring           | GNYE                                 | Green/Yellow         |

