

# Reflex Sensor with Background Suppression

## OHII102C0103

Part Number



- **Hygienic design makes it easy to clean**
- **Made with food safe materials that are FDA approved**
- **Touch teach-in, external teach-in**
- **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 InoxSens sensors are set up with the help of touch teach-in and is made possible by the hermetically sealed housing.



### Technical Data

#### Optical Data

Range	100 mm
Adjustable Range	10...100 mm
Switching Hysteresis	< 5 %
Light Source	Red Light
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1

#### Electrical Data

Supply Voltage	10...30 V
Current Consumption (Ub = 24 V)	< 30 mA
Switching Frequency	600 Hz
Response Time	800 µs
Temperature Drift	< 10 %
Temperature Range	-25...60 °C
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Lockable	yes
Teach Mode	HT, VT
Protection Class	III

#### Mechanical Data

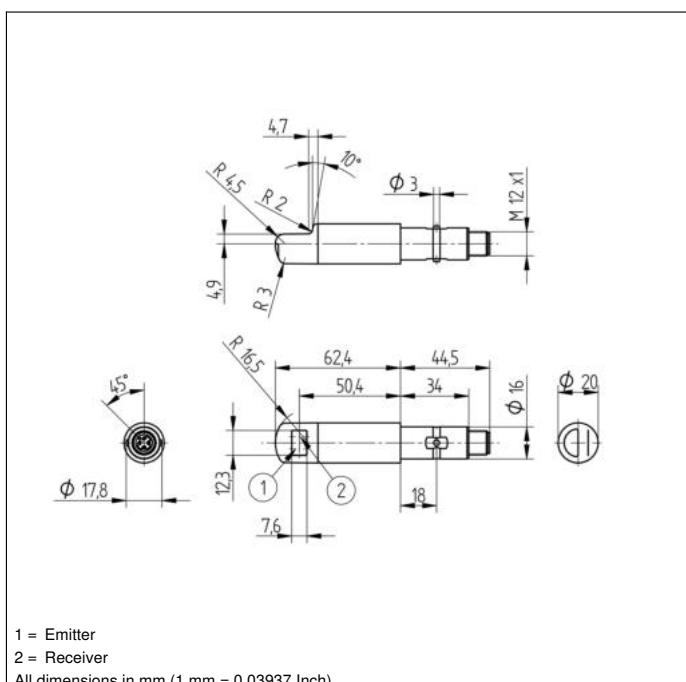
Setting Method	Teach-In
Housing Material	Stainless Steel 316L
Degree of Protection	IP68/IP69K
Connection	M12 x 1; 4-pin
Optic Cover	PMMA (FDA)
Material Control Panel	PC (FDA)
Ecolab	yes
PNP NO/NC switchable	
RS-232 with Adapterbox	
Connection Diagram No.	152
Control Panel No.	II1
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	140   490

### Complementary Products

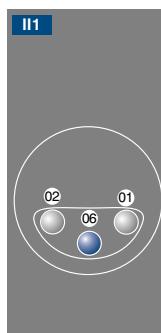
Adapterbox A232

PNP-NPN Converter BG2V1P-N-2M

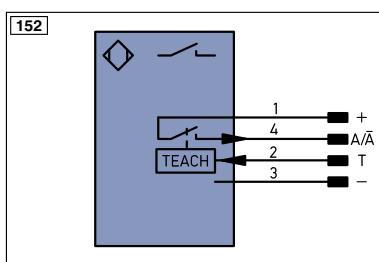
Software



### Ctrl. Panel



01 = Switching Status Indicator  
02 = Contamination Warning  
06 = Teach Button



#### 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)	Ü	Test Input inverted
Ā	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input
Ā	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)	Awv	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		SnR	Switching Distance Reduction
PoE	Power over Ethernet	Rx+/-	Ethernet Receive Path
IN	Safety Input	Tx+/-	Ethernet Send Path
SSD	Safety Output	Bus	Interfaces-Bus A(+)/B(-)
Signal	Signal Output	La	Emitted Light disengageable
BLD	Ethernet Gigabit bidirec. data line (A-D)	Mag	Magnet activation
EN0RS422	Encoder 0-pulse 0-0 (TTL)	RES	Input confirmation
		EDM	Contactor Monitoring

EN0RS422 Encoder A/A (TTL)  
EN0RS422 Encoder B/B (TTL)  
ENa Encoder A  
ENb Encoder B  
AMIN Digital output MIN  
AMAX Digital output MAX  
AOK Digital output OK  
SY IN Synchronization IN  
SY OUT Synchronization OUT  
OLT 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
GNYE	Green/Yellow

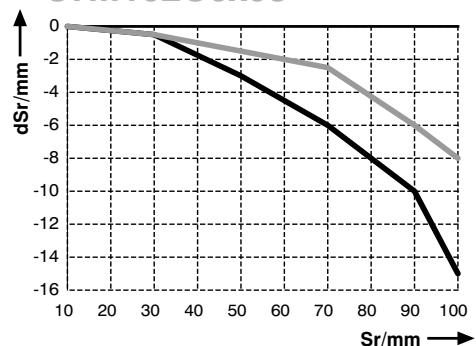
Table 1

Detection Range	10 mm	40 mm	100 mm
Light Spot Diameter	2,5 x 7 mm	2,5 x 5 mm	2,5 x 2,5 mm

### Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission

OHII102C0x03



Sr = Switching Distance

dSr = Switching Distance Change

black 6 % remission  
grey 18 % remission

