

# Reflex Sensor with Background Suppression

## OHI122C0103

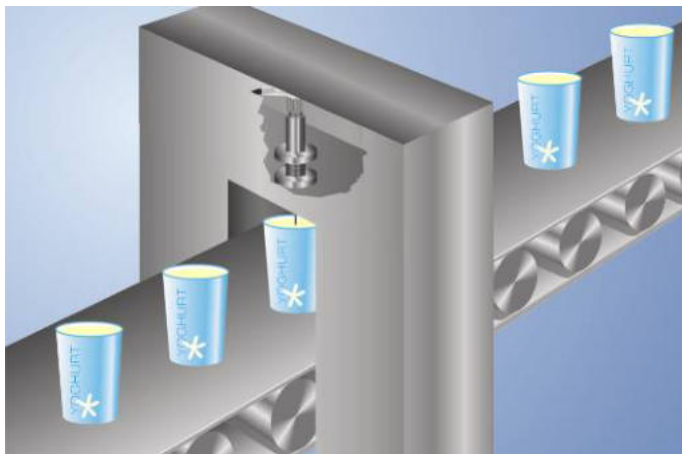
Part Number

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.

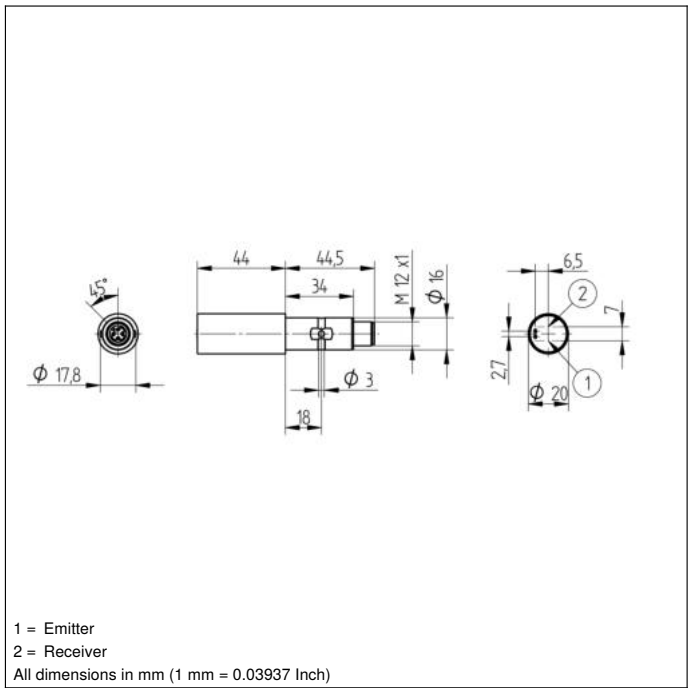


### Technical Data

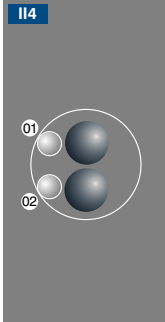
Optical Data	
Range	120 mm
Adjustable Range	30...120 mm
Switching Hysteresis	< 5 %
Light Source	Red Light
Service Life (T = +25 °C)	100000 h
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	10...30 V
Current Consumption (Ub = 24 V)	< 30 mA
Switching Frequency	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 × 1; 4-pin
Optic Cover	PMMA (FDA)
PNP NO/NC switchable	●
RS-232 with Adapterbox	●
Connection Diagram No.	152
Control Panel No.	II4
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	140 490

### Complementary Products

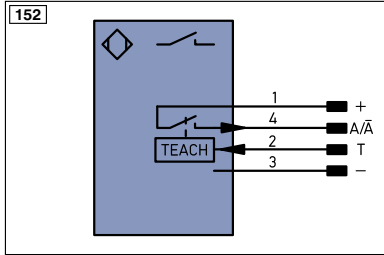
Adapterbox A232
PNP-NPN Converter BG2V1P-N-2M
Software



## Optic



01 = Switching Status Indicator  
02 = Contamination Warning



### Legend

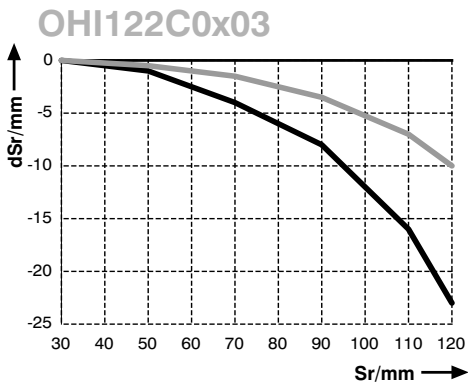
+	Supply Voltage +	PT	Platinum measuring resistor	ENAR542Z	Encoder A/Ä (TTL)
-	Supply Voltage 0 V	nc	not connected	ENBP542Z	Encoder B/B (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENa	Encoder A
A	Switching Output (NO)	Ü	Test Input inverted	ENb	Encoder B
Ä	Switching Output (NC)	W	Trigger Input	AMIN	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
Ü	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
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	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
EN0R542Z	Encoder 0-pulse 0-0 (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactur Monitoring	GNYE	Green/Yellow

**Table 1**

Detection Range	30 mm	100 mm	120 mm
Light Spot Diameter	2,5 × 7 mm	2,5 × 2,5 mm	3 × 3 mm

## Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission



Sr = Switching Distance  
dSr = Switching Distance Change  
— black 6 % remission  
— grey 18 % remission

