Reflex Sensor
with Background Suppression

OHII102C0203

Part Number

InoxSens

- **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)**

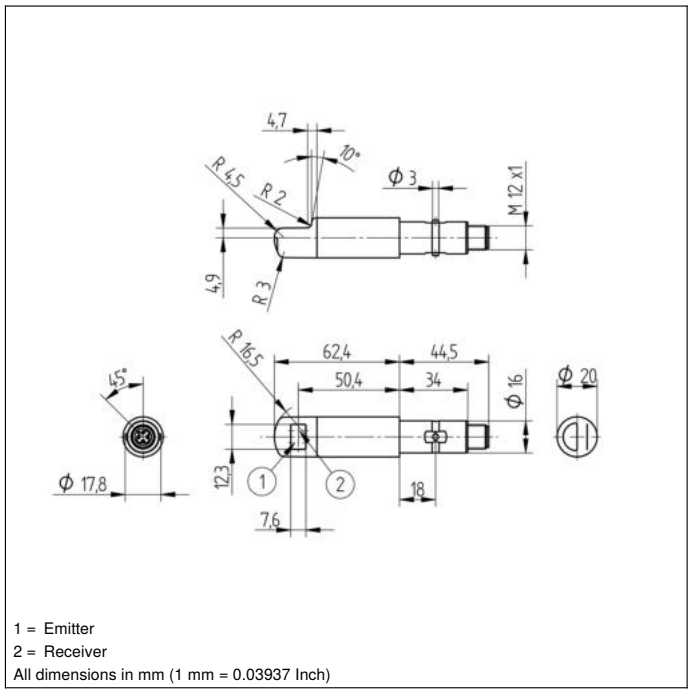
InoxSens is the hygiene series from wenglor. The innovative design of InoxSens sensors allows contamination and cleaning agents to flow off by themselves. A variety of components form a complete system which integrates seamlessly into the machine. The laser welded stainless steel housing made of V4A (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 × 1; 4-pin
Optic Cover	Glass
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

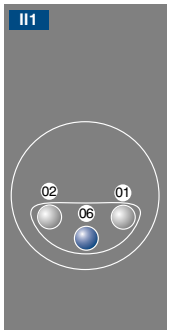
Complementary Products

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

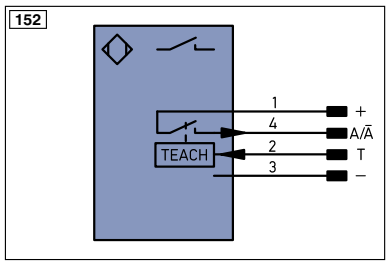


1 = Emitter
2 = Receiver
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



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



Legend

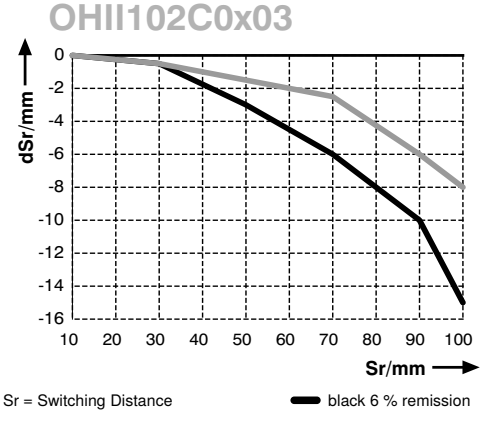
+	Supply Voltage +	PT	Platinum measuring resistor	ENARS422	Encoder A/Ā (TTL)
–	Supply Voltage 0 V	nc	not connected	ENBRS422	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENA	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	ENB	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	AMIN	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
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
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
EN0RS422	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactor Monitoring	GNYE	Green/Yellow

Table 1

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