

High-Performance Distance Sensor

OY2P303A0135

LASER

WinTec

Part Number

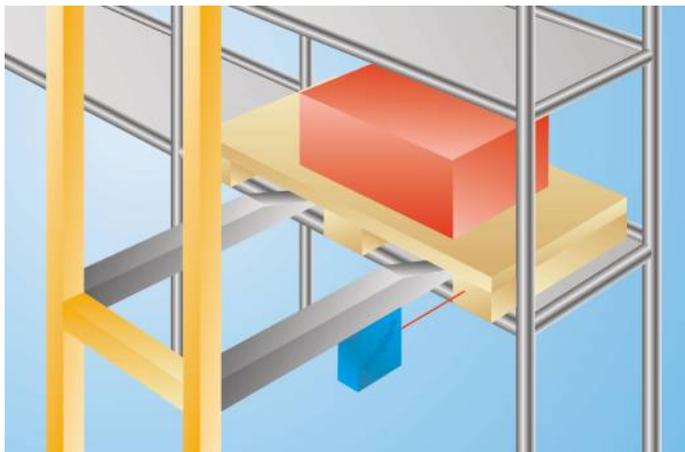


- Interference-free towards gloss in the background with WinTec
- No mutual interference with WinTec
- Reliable in case of glossy objects with WinTec
- Secure detection of black objects also in extremely inclined positions with WinTec

These sensors have scratch-resistant optics and the emitted light can be switched off. They use the transit time measurement principle to measure the distance between the sensor and the object.

wenglor interference-free technology (WinTec) has revolutionized sensor technology:

It makes it possible to mount several sensors directly next to, or opposite each other without the sensors influencing each other. The sensors reach a very high switching frequency and use laser class 1, which is safe for the human eye.



Technical Data

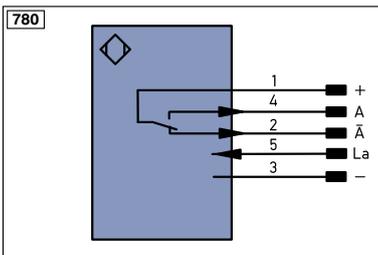
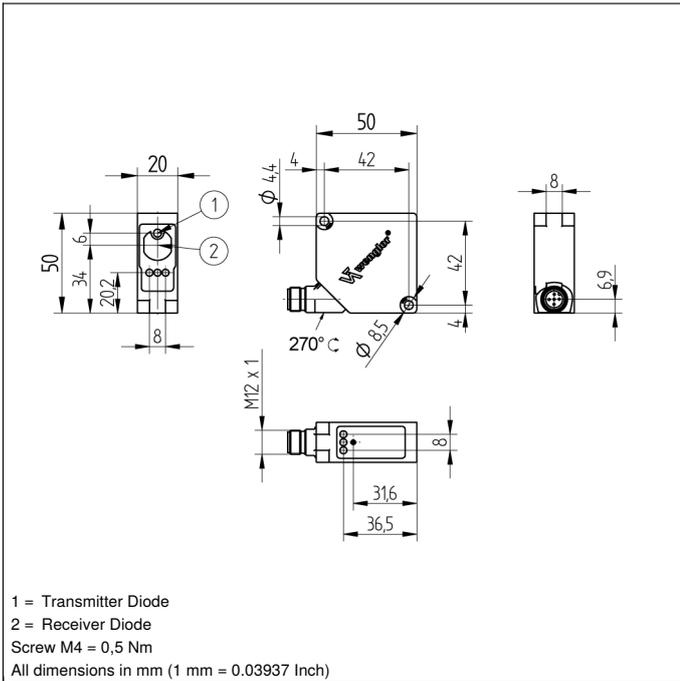
Optical Data	
Working Range	0...3000 mm
Adjustable Range	200...3000 mm
Switching Hysteresis	< 15 mm
Light Source	Laser (red)
Wave Length	660 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Beam Divergence	< 2 mrad
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1

Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 50 mA
Switching Frequency	1000 Hz
Response Time	0,5 ms
Temperature Drift (-10 °C < T _u < 50 °C)	< 1 %
Temperature Drift (T _u < -10 °C, T _u > 50 °C)	< 2,5 %
Temperature Range	-40...60 °C
Switching Outputs	2
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
Protection Class	III

Mechanical Data	
Adjustment	Teach-In
Housing Material	Plastic
Optic Cover	PMMA
Degree of Protection	IP68
Connection	M12 × 1; 4/5-pin

PNP NO/NC antivalent	●
Connection Diagram No.	780
Control Panel No.	P10
Suitable Connection Technology No.	2 35
Suitable Mounting Technology No.	380



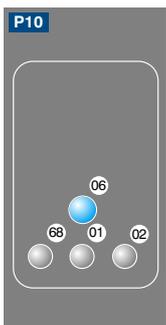


Legend		Wire Colors according to DIN IEC 757
+	Supply Voltage +	BK Black
-	Supply Voltage 0 V	BN Brown
~	Supply Voltage (AC Voltage)	RD Red
A	Switching Output (NO)	OG Orange
Ā	Switching Output (NC)	YE Yellow
V	Contamination/Error Output (NO)	GN Green
∇	Contamination/Error Output (NC)	BU Blue
E	Input (analog or digital)	VT Violet
T	Teach Input	GY Grey
Z	Time Delay (activation)	WH White
S	Shielding	PK Pink
RxD	Interface Receive Path	GNYE Green Yellow
TxD	Interface Send Path	
RDY	Ready	
GND	Ground	
CL	Clock	
E/A	Output/Input programmable	
	IO-Link	
PoE	Power over Ethernet	
IN	Safety Input	
OSSD	Safety Output	
Signal	Signal Output	
nc	not connected	
U	Test Input	
Ū	Test Input inverted	
W	Trigger Input	
O	Analog Output	
O-	Ground for the Analog Output	
BZ	Block Discharge	
AWV	Valve Output	
a	Valve Control Output +	
b	Valve Control Output 0 V	
SY	Synchronization	
E+	Receiver-Line	
S+	Emitter-Line	
±	Grounding	
S _n R	Switching Distance Reduction	
Rx+/-	Ethernet Receive Path	
Tx+/-	Ethernet Send Path	
Bus	Interfaces-Bus A(+)/B(-)	
La	Emitted Light disengageable	
Mag	Magnet activation	
RES	Input confirmation	
EDM	Contactur Monitoring	

Complementary Products

- PNP-NPN Converter BG2V1P-N-2M
- Protection Housing Set ZSP-NN-02
- Protection Housing ZSV-0x-01

Ctrl. Panel



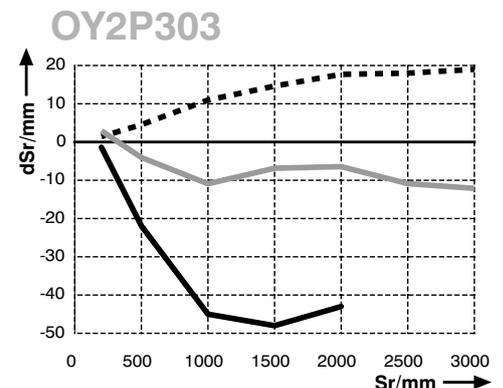
- 01 = Switching Status Indicator
- 02 = Contamination Warning
- 06 = Teach Button
- 68 = Supply Voltage Indicator

Table 1

Working Distance	0 m	3 m
Light Spot Diameter	5 mm	9 mm

Switching Distance Deviation

Typical characteristic curve based on Kodak white (90 % remission)



Sr = Switching Distance
 dSr = Switching Distance Change

- black 6 % remission
- grey 18 % remission
- - - Aluminum