

High-Performance Distance Sensor

P1KY002 LASER

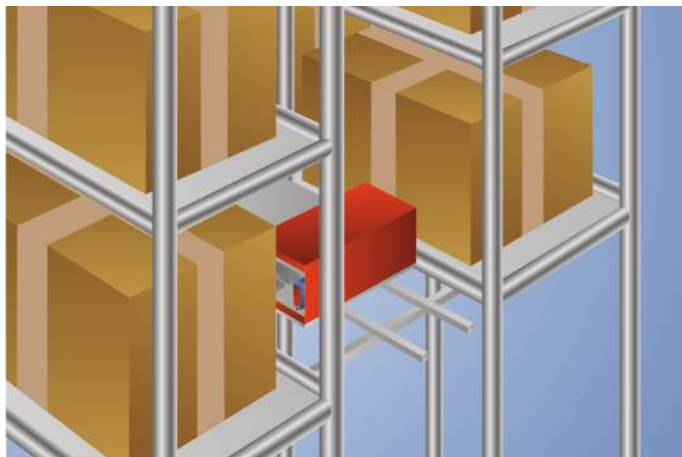
WinTec



- Interference-free towards gloss in the background with WinTec
- Miniature design
- 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 miniature sensors determine distance between the sensor and the object by means of transit time measurement.

wenglor's interference-free technology (WinTec) is revolutionizing sensor technology: it prevents numerous sensors arranged directly opposite or next to each other from interfering with one another. The sensors reach a very high switching frequency and use laser class 1, which is safe for the human eye.



Optical Data	
Working Range	0...1000 mm
Adjustable Range	100...1000 mm
Switching Hysteresis	< 20 mm
Light Source	Laser (red)
Wavelength	680 nm
Service Life (T = +25 °C)	100000 h
Laser Class (EN 60825-1)	1
Beam Divergence	< 16 mrad
Max. Ambient Light	10000 Lux
Light Spot Diameter	see Table 1
Triple Dot Laser	yes

Electrical Data	
Supply Voltage	10...30 V DC
Current Consumption (U _b = 24 V)	< 30 mA
Switching Frequency	1000 Hz
Response Time	0,5 ms
Temperature Drift	< 2,5 %
Temperature Range	-40...60 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	< 2,5 V
PNP Switching Output/Switching Current	100 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
FDA Accession Number	1620293-001

Mechanical Data	
Setting Method	Potentiometer
Housing Material	Plastic
Optic Cover	PMMA
Degree of Protection	IP67
Connection	M12 × 1; 4-pin
Cable Length	200 mm

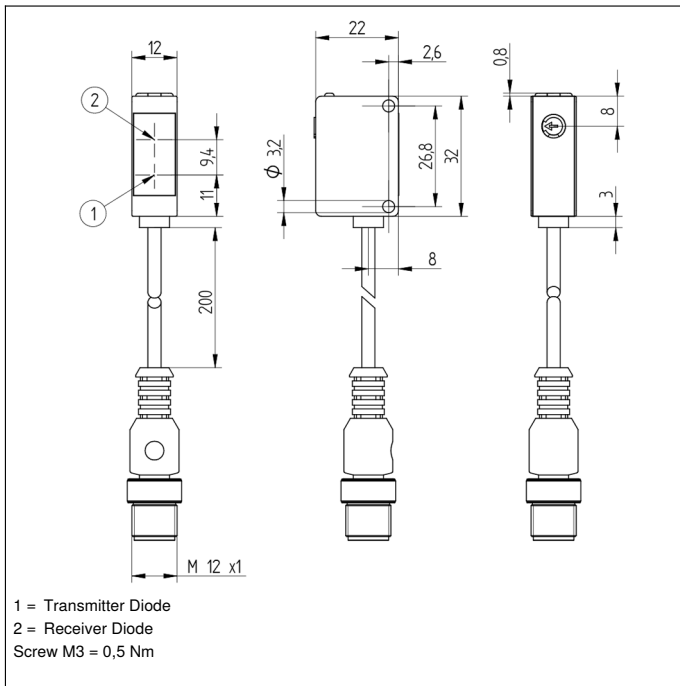
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	996,97 a

PNP NO/NC antivalent	●
Connection Diagram No.	101
Control Panel No.	1K1
Suitable Connection Equipment No.	2
Suitable Mounting Technology No.	400

* Temperature range with permanently installed cable, bending radius: > 20 mm

Complementary Products

PNP-NPN Converter BG2V1P-N-2M



Ctrl. Panel



- 05 = Switching Distance Adjuster
- 30 = Switching Status/Contamination Warning
- 68 = Supply Voltage Indicator

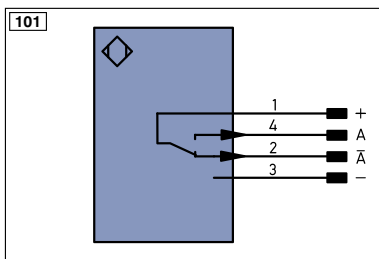


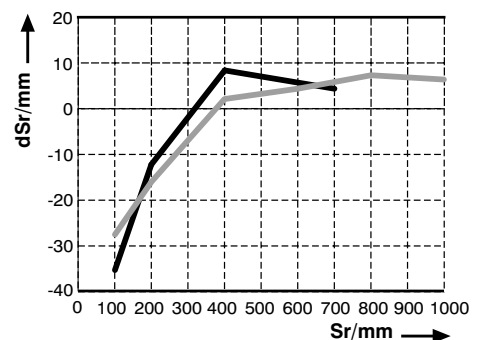
Table 1

Working Distance	100 mm	500 mm	1000 mm
Light Spot Diameter	4 mm	7 mm	15 mm

Switching Distance Deviation

Typical characteristic curve based on white, 90 % remission

P1KY0



Sr = Switching Distance

dSr = Switching Distance Change

— black 6 % remission

— grey 18 % remission

