

High-Performance Distance Sensor

P1PY004 LASER

PNG smart WinTec



- 2 mutually independent switching outputs
- 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.



Optical Data	
Working Range	0...3000 mm
Adjustable Range	200...3000 mm
Switching Hysteresis	< 15 mm
Light Source	Laser (red)
Wavelength	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
Supply Voltage with IO-Link	18...30 V DC
Current Consumption (U _b = 24 V)	< 40 mA
Switching Frequency	500 Hz
Response Time	1 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
Number of Switching Outputs	2
Switching Output Voltage Drop	< 2,5 V
Switching Output/Switching Current	200 mA
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Interface	IO-Link V1.1
Protection Class	III
FDA Accession Number	1910001-000

Mechanical Data	
Setting Method	Teach-In
Housing Material	Plastic
Optic Cover	PMMA
Degree of Protection	IP68
Connection	M12 × 1; 4/5-pin
Cable Length	500 mm

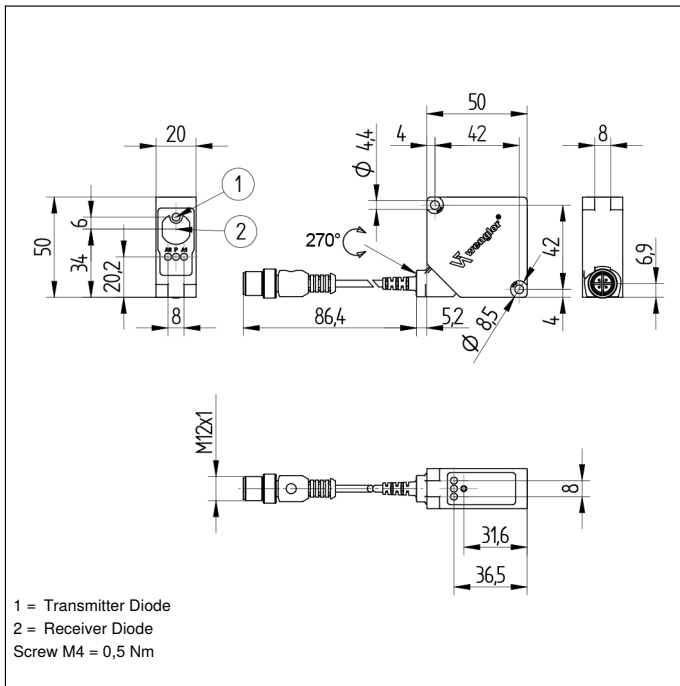
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	949,92 a

NPN NO	●
IO-Link	●
Connection Diagram No.	235
Control Panel No.	P15
Suitable Connection Equipment No.	2 35
Suitable Mounting Technology No.	380

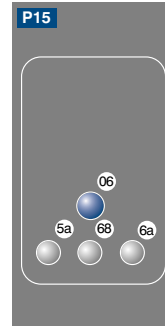
* Temperature range with permanently installed cable, bending radius: > 40 mm

Complementary Products

IO-Link Master	
Protective Housing ZSV-0x-01	
Set Protective Housing ZSP-NN-02	
Software	



Ctrl. Panel



- 06 = Teach Button
- 5a = Switching Status Display, O1
- 68 = Supply Voltage Indicator
- 6a = Switching Status Display, O2

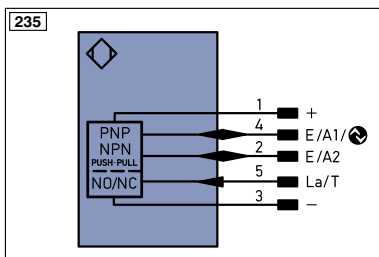
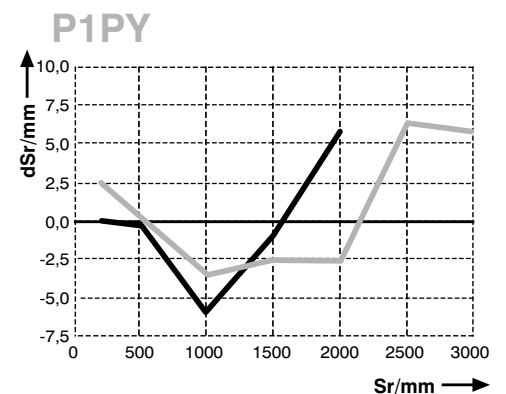


Table 1

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

