

# High-Performance Distance Sensors

## P1PY111 LASER

PNP//smart der wintec.

Part Number



- 2 mutually independent switching outputs
- No interactive influence
- Wide working range and precise detection thanks to DS technology

These sensors function in accordance with the principle of transit time measurement in laser class I. This technology permits reliable detection of black or glossy objects even in extremely inclined positions. Unwanted reflections are suppressed by the intelligent measuring method. Extensive setting options permit ideal adaptation to any application. Thanks to WinTec, the sensors can be installed directly next to or opposite each other.



### Technical Data

Optical Data	
Working Range	0...10000 mm
Adjustable Range	50...10000 mm
Reproducibility maximum	3 mm*
Linearity Deviation	10 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	100000 Lux
Light Spot Diameter	see Table 1
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (U <sub>b</sub> = 24 V)	< 35 mA
Switching Frequency	50 Hz*
Switching frequency (max.)	250 Hz*
Response Time	15 ms *
Response time (min.)	4,7 ms *
Temperature Drift	< 0,4 mm/K
Temperature Range	-40...50 °C
Number of Switching Outputs	2
Switching Output Voltage Drop	< 2,5 V
Switching Output/Switching Current	100 mA
Reverse Polarity and Overload Protection	yes
Short Circuit Protection	yes
Interface	IO-Link V1.1
Baud Rate	COM3
Protection Class	III
FDA Accession Number	2110079-000
Mechanical Data	
Setting Method	Teach-In
Housing Material	Plastic
Optic Cover	PMMA
Degree of Protection	IP67/IP68
Connection	M12 × 1; 4/5-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	543,26 a
PNP NO	●
IO-Link	●
Acceleration sensor	●
Connection Diagram No.	243
Control Panel No.	A43
Suitable Connection Equipment No.	2   35
Suitable Mounting Technology No.	380

\* Depends on mode, see table 2

### Complementary Products

IO-Link Master  
Software

