Laser Distance Sensor
Long-Range

P1PY107 LASER

Part Number

PNG smart der wintec.

- **Analog output 0…10 V**
- **Intuitive operating concept**
- **No interactive influence**
- **Wide working range and precise detection thanks to DS technology**

The sensors function in accordance with the principle of transit time measurement with laser class 1. The wintec with Dynamic Sensitivity technology (DS) enables previously unattainable reception sensitivity even with very weak signals. As a result, the sensors have a large working range of up to 10 m and can reliably detect dark or shiny objects even at extreme angles. wintec also works very reliably in adverse ambient conditions, e.g., caused by ambient light or dirt. Extensive condition monitoring functions additionally enable predictive maintenance and trouble-free operation.

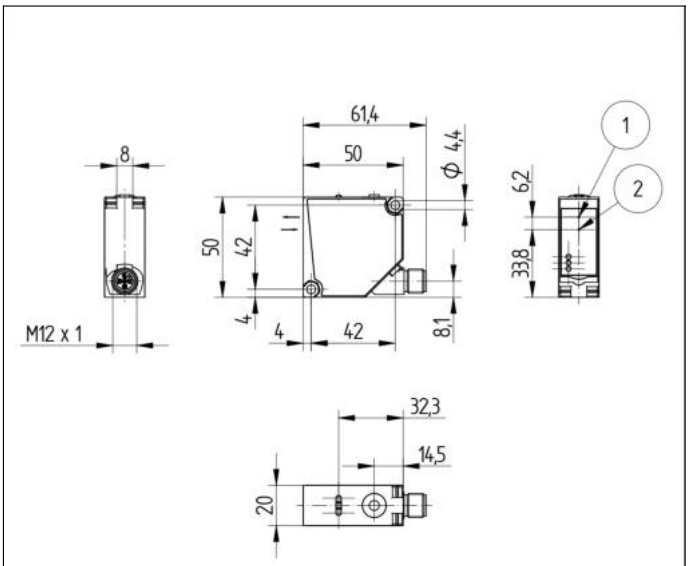
Technical Data

Optical Data	
Working Range	0...10000 mm
Adjustable Range	50...10000 mm
Reproducibility maximum	3 mm*
Linearity Deviation	10 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 (Ub = 24 V)	< 40 mA
Measuring Rate	100 /s*
Measuring Rate (max.)	500 /s*
Temperature Drift	< 0,4 mm/K
Temperature Range	-40...50 °C
Analog Output	0...10 V
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)	508,83 a
Error Output	●
Analog Output	●
IO-Link	●
Connection Diagram No.	241
Control Panel No.	A45
Suitable Connection Equipment No.	2 35
Suitable Mounting Technology No.	380

* Depends on mode, see table 2

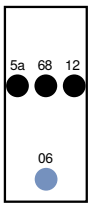
Complementary Products

IO-Link Master
Software

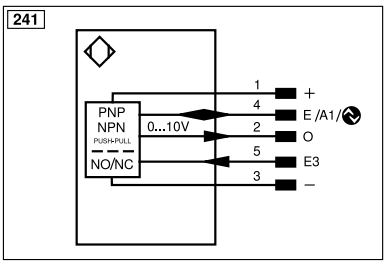


1 = Transmitter Diode
2 = Receiver Diode
Screw M4 = 0,5 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel



06 = Teach Button
12 = Analog Output Indicator
5a = Switching Status Display, O1
68 = supply voltage indicator



- = supply voltage 0 V
+ = supply voltage +
E/A1 = programmable input/output / IO-Link
E3 = input
O = analog output

Mode	White working range	Gray working range	Black working range	Measuring rate	Maximum reproducibility	Linearity deviation	Low signal detection
Speed	0...10000 mm	0...9000 mm	0...7000 mm	500/s	5 mm	15 mm	+
Precision (default)	0...10000 mm	0...10000 mm	0...8000 mm	100/s	3 mm	10 mm	+ +
Precision Plus	0...10000 mm	0...10000 mm	0...8000 mm	50/s	3 mm	10 mm	+ + +

Table 2

Table 1

Working Distance	0 m	5 m	10 m
Light Spot Diameter	5 mm	10 mm	15 mm