

Laser Distance Sensor

Time of Flight

P1PY138 LASER

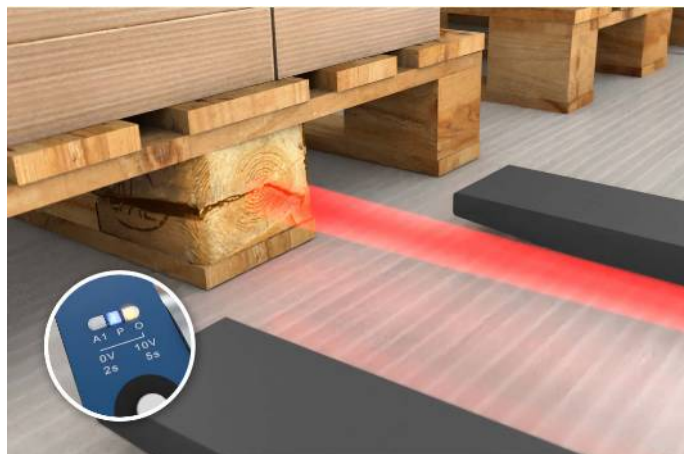
Part Number

der wintec.



- Analog output: 4...20 mA
- Intuitive operating concept
- Large light spot
- 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. The versions with a large light spot are suitable for reliably detecting objects with stamped, perforated or very uneven surfaces. The wintec also works very reliably in adverse ambient conditions, such as those 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...5000 mm
Measuring Range	50...5000 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
Max. Ambient Light	100000 Lux
Light Spot Diameter	see Table 1

Electrical Data

Supply Voltage	18...30 V DC
Current Consumption (U _b = 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	4...20 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	2110079-001

Mechanical Data

Setting Method	Teach-In
Housing Material	Plastic
Optic Cover	PMMA
Degree of Protection	IP67/IP68
Connection	M12 x 1; 4/5-pin

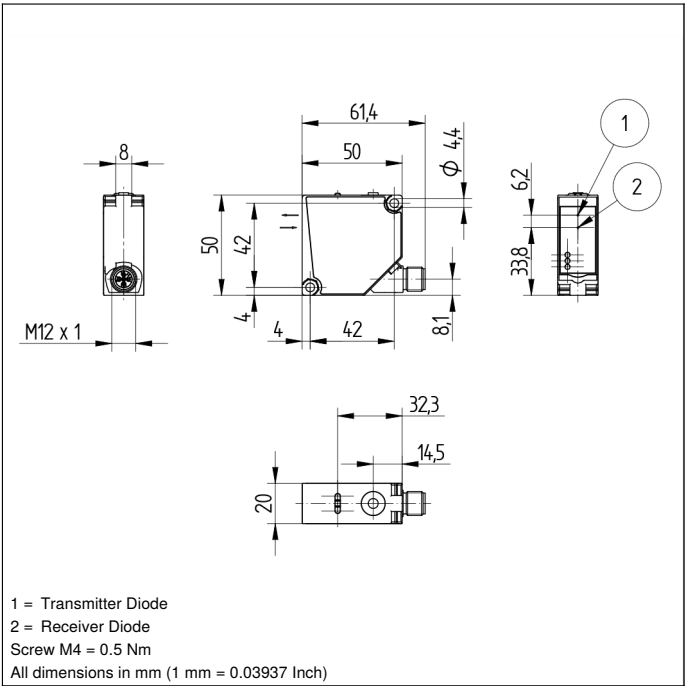
Safety-relevant Data

MTTFd (EN ISO 13849-1)	512,61 a
Error Output	●
Analog Output	●
IO-Link	●
Connection Diagram No.	242
Control Panel No.	A44
Suitable Connection Equipment No.	2 35
Suitable Mounting Technology No.	380

* Depends on mode, see table 2

Complementary Products

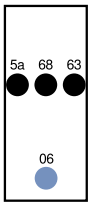
IO-Link Master
Software



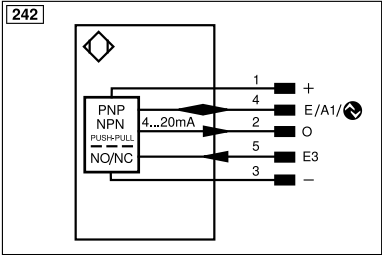
1 = Transmitter Diode
2 = Receiver Diode
Screw M4 = 0.5 Nm
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

A 44



06 = Teach Button
5a = Switching Status Display, O1
63 = Analog Output Current Indicator
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...5000 mm	0...5000 mm	0...5000 mm	500/s	5 mm	15 mm	+
Precision (default)	0...5000 mm	0...5000 mm	0...5000 mm	100/s	3 mm	10 mm	++
Precision Plus	0...5000 mm	0...5000 mm	0...5000 mm	50/s	3 mm	10 mm	+++

Table 2

Table 1

Working Distance	0 m	2 m	5 m
Light Spot Diameter	5 mm	30 mm	65 mm

