

Laser Distance Sensor

Time of Flight

P1PY208S01

Part Number

der wintec.



- **Analog output: 4...20 mA**
- **Graphical display for easy operation**
- **No interactive influence**
- **Wide working range and precise detection thanks to DS technology**
- **Wireless settings via Bluetooth**

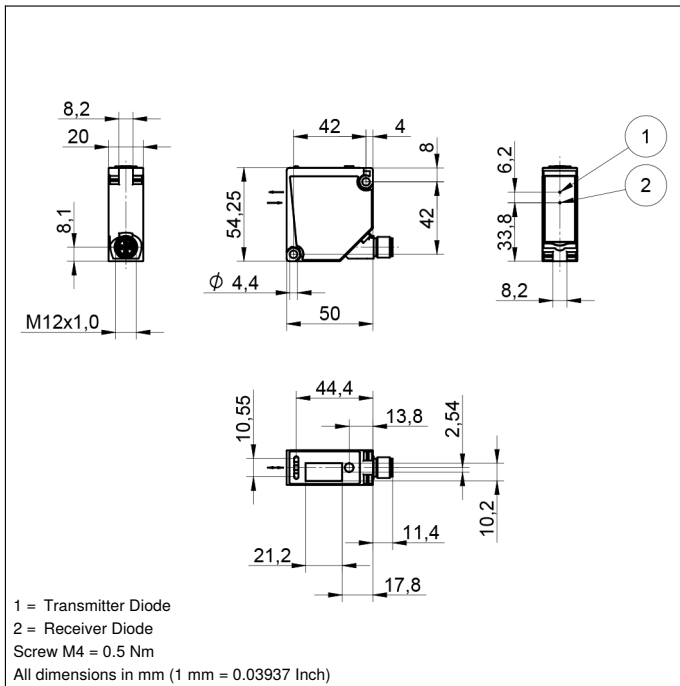
The sensors function in accordance with the principle of transit time measurement with laser class 1. wintec with Dynamic Sensitivity technology (DS) enables previously unattainable reception sensitivity even with very weak signals. As a result, the sensors have a large working range of up to 10 m and can reliably detect dark or shiny objects even at extreme angles. wintec also works very reliably in adverse ambient conditions, such as those caused by ambient light or contamination. Extensive condition monitoring functions additionally enable predictive maintenance and trouble-free operation. Settings are entered via the easy-to-read OLED display or via Bluetooth using the weCon app.



Technical Data

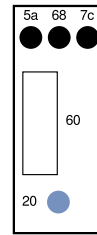
| Optical Data | |
|---|-----------------------|
| Working Range | 0...10000 mm |
| Measuring Range | 50...10000 mm |
| Reproducibility maximum | 3 mm* |
| Linearity Deviation | 10 mm* |
| Light Source | Laser (red) |
| Wavelength | 660 nm |
| Service Life (T = +25 °C) | 100000 h |
| Laser Class (EN 60825-1) | 1 |
| Beam Divergence | < 2 mrad |
| Max. Ambient Light | 100000 Lux |
| Light Spot Diameter | see Table 1 |
| Reflector required | no |
| Electrical Data | |
| Supply Voltage | 18...30 V DC |
| Current Consumption (U _b = 24 V) | < 60 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 |
| Short Circuit Protection | yes |
| Reverse Polarity Protection | yes |
| Overload Protection | yes |
| Protection Class | III |
| Mechanical Data | |
| Setting Method | (OLED)/Bluetooth menu |
| Housing Material | Plastic, ABS |
| Optic Cover | Plastic, PMMA |
| Degree of Protection | IP67/IP68 |
| Connection | M12 × 1; 4/5-pin |
| Safety-relevant Data | |
| MTTFd (EN ISO 13849-1) | 353,85 a |
| Error Output | ● |
| Analog Output | ● |
| Connection Diagram No. | 277 |
| Control Panel No. | X6 |
| Suitable Connection Equipment No. | 2 35 |
| Suitable Mounting Technology No. | 380 |

* Depends on mode, see table 2

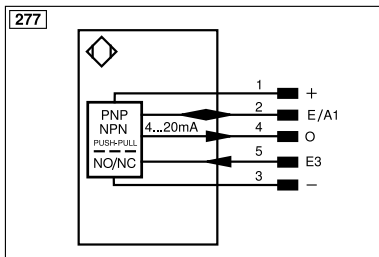


Ctrl. Panel

X6



20 = Enter key
 5a = Switching Status Indicator, A1
 60 = display
 68 = supply voltage indicator
 7c = Analog Output Indicator, O



- = 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 |

