formative
for the
industry

wenglor
the innovative family

der
wintec.

der wintec.
Formative for
All Industries.

wenglor has been shaping the market for photoelectronic sensors with unique technologies for decades. Innovative wenglor products are characterized by precision, performance, interference resistance, communication capability and robustness.

No photoelectronic sensor has advanced automation as much as wenglor's wintec product range. Used millions of times over, "**wenglor interference-free technology**" based on transit time measurement has been a benchmark in countless industries for more than a decade.

wintec enables objects to be detected regardless of color, gloss, surface texture and inclination angle. Sensors can be installed directly next to each other or even opposite each other without influencing each other.

The wintec sets new standards: Compared with traditional transit time technologies, the latest wintec generation uses "Dynamic Sensitivity" (DS) technology. The laser distance sensor emits very short light pulses in the nanosecond range, with signals that are statistically evaluated and thus produce the distance value to the object. This method enables unprecedented reception sensitivity even with very weak signals.

This innovative technology increases the working range to 10,000 mm while improving reproducibility to just three millimeters over the entire working range of the sensor.

The wintec is also immune to interference from natural or artificial ambient light up to 100,000 Lux. Even other sensors in the direct vicinity or dirt in the working area do not influence the performance of transit time sensors with DS technology.

wenglor P1PY108

Laser Distance Sensor
0…10000 mm
18…30 V DC
Analog 4…20 mA
Laser Class 1

3320D/1231662

The first-class wintec: For extreme industrial environments, the wintec is available in a high-quality stainless steel housing for the first time, which gives the sensor even greater mechanical robustness at temperatures of −40 to +50 °C, as well as high chemical material resistance.

Thanks to the complete laser welding of the housing parts, the wintec is sealed to a IP69K degree of protection – and is therefore optimally suited for use in the food and beverage industry, where it can easily withstand aggressive cleaning and disinfecting agents. Even in harsh industrial environments, where it can get really dirty with oils or lubricants, the wintec demonstrates its supreme resistance.

der wintec. Performance and Precision.

Large Working Range

The wintec with DS technology impresses with a large working range
of up to 10 m – regardless of whether the objects are light or dark, matt or shiny.
The two independent switching outputs can be used, for example,
to control signals for deceleration and stopping.

Detection of Transparent Objects

The wintec with DS technology delivers reliable results even with very weak signals and thus impresses with the detection of transparent objects such as items of clothing packed in foil.

Superior Detection and Maximum Precision

Thanks to DS technology, the wintec also scores highly when it comes to detecting black and shiny surfaces, which are reliably detected even at extreme inclines. Even the smallest parts can be reliably detected from long distances with the fine laser beam and distances can be accurately measured.

der wintec. Safety and Reliability.

Extremely High Resistance to Ambient Light

Thanks to DS technology, the wintec is extremely robust against disturbing ambient light up to 100,000 lux – reliable operation is guaranteed even in strong sunlight.

Hiding Interferences

The wintec also works reliably in dirty environments. Disturbing ambient conditions such as dust and swarf can be hidden. Interference factors in the background, such as reflective high-visibility vests, do not affect the sensor either.

No Mutual Interference

The wintec with DS technology allows up to six sensors to be installed directly next to each other and even opposite each other without influencing each other.
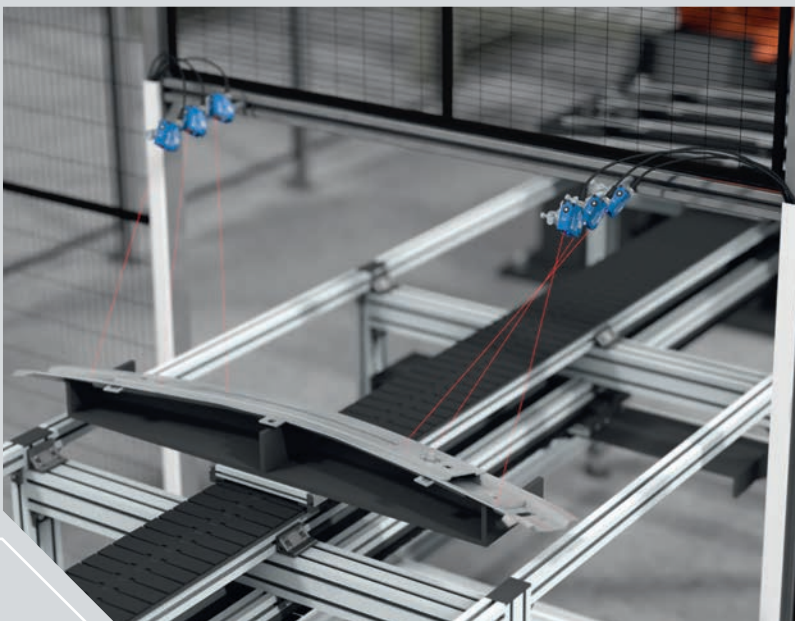
der wintec. Smart Communication.

IO-Link 1.1 with COM3

Thanks to the integration of the latest IO-Link standards, the wintec can exchange process data with the control system at an extremely high transmission speed of 230.4 kBit/s.

Write Process Data

The wintec can control important sensor functions via writable process data. The data are transmitted cyclically and time-consuming control programming is no longer necessary. This means that the laser light can be switched off, for example. Irritations in the interaction between man and machine are prevented and the laser light (laser class 1) is only activated when it is needed.

**Intuitive Operating Software
and Selectable Measuring Unit**

Whether metric or the Anglo-American measuring system – the wintec can output the distance values in millimeters or inches. These and other settings are possible via IO-Link and can be made conveniently via the wTeach graphic operating software.

# **der win**tec. 100% Condition Monitoring.
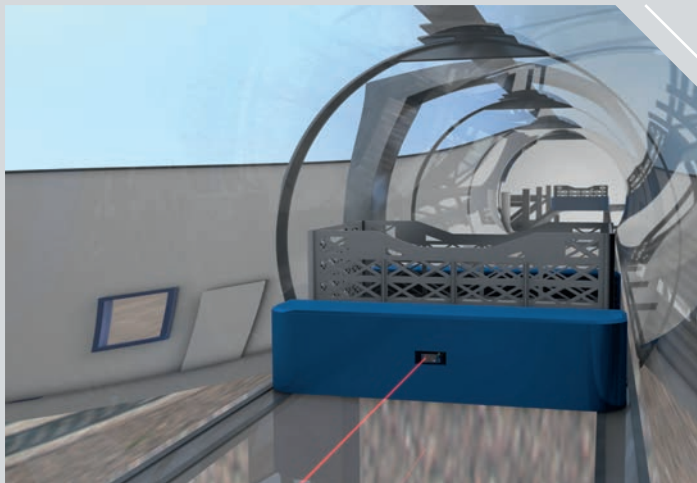
Extensive Status Messages

The wintec constantly monitors itself and outputs this information via numerous status messages. For example, temperature or ambient light warnings provide information on the current ambient conditions. The sensor also detects if its lens is dirty and provides information for preventive maintenance.

Built-in Acceleration Sensor

The acceleration sensor built into the wintec detects impacts and shock loads. This can be used to detect, for example, whether a driverless transport system (DTS) has been subjected to a shock load due to a crash.
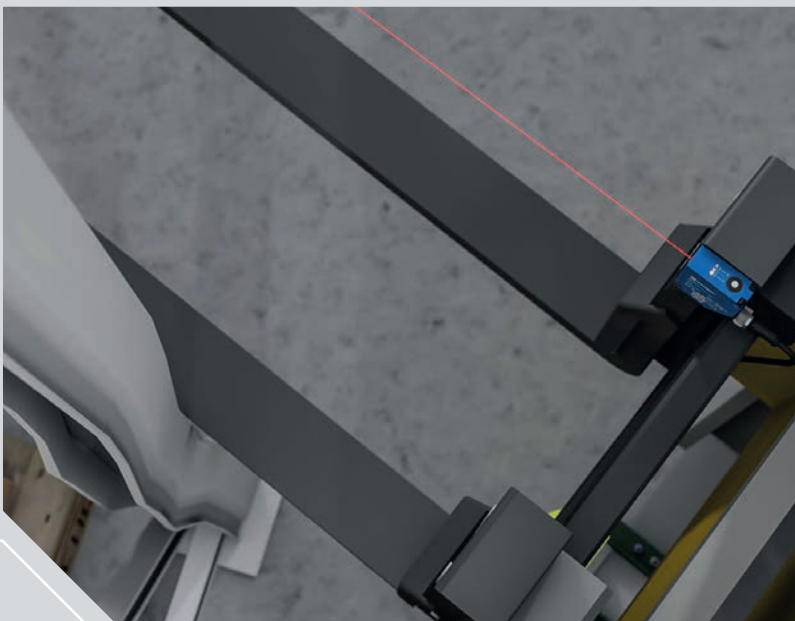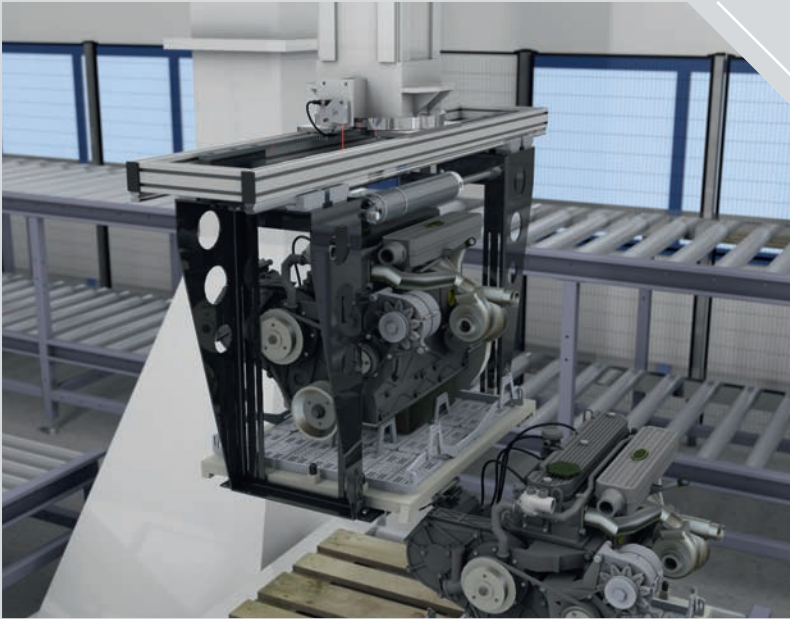
der **win**tec. Durability and Robustness.
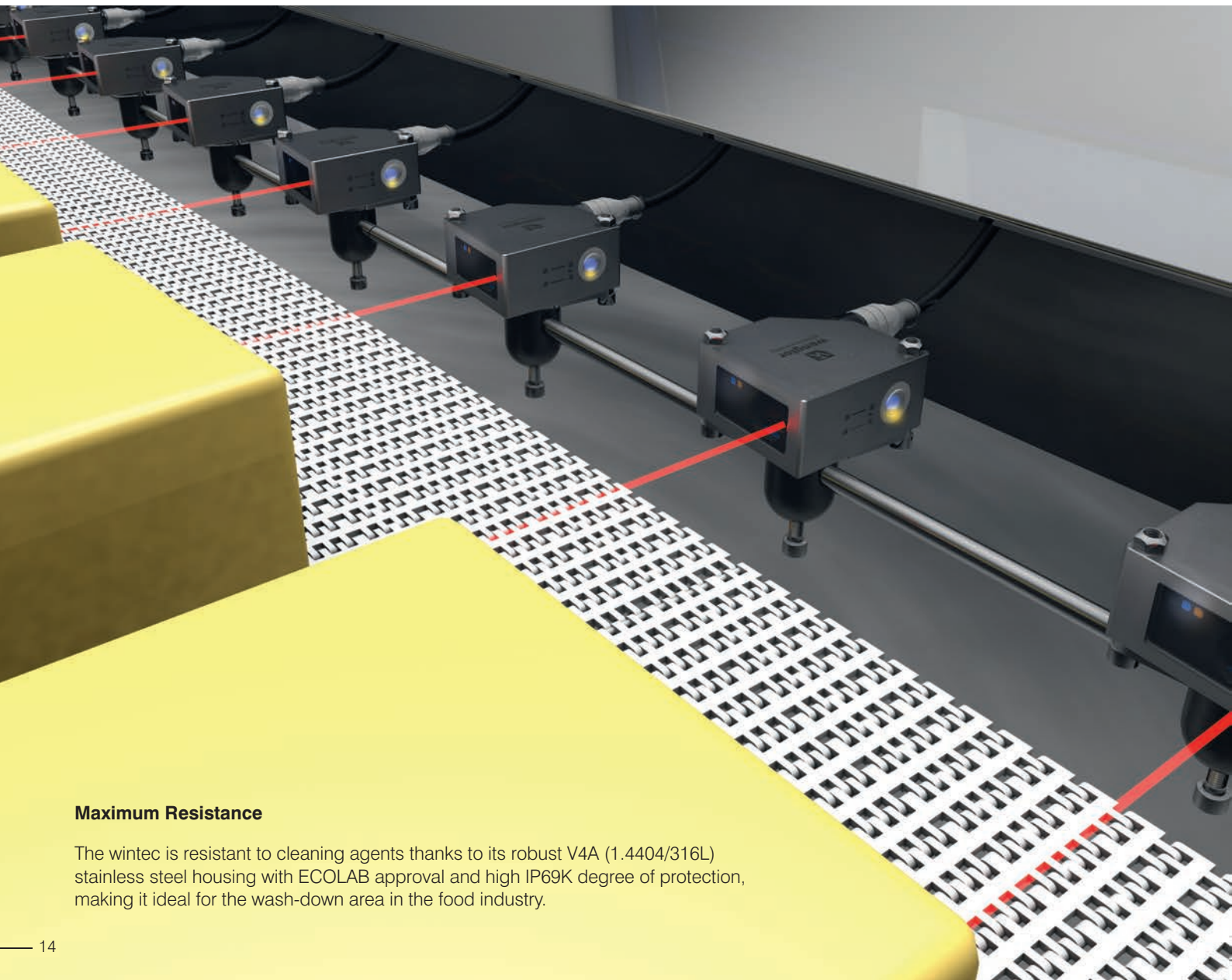
Maximum Resistance

The wintec is resistant to cleaning agents thanks to its robust V4A (1.4404/316L) stainless steel housing with ECOLAB approval and high IP69K degree of protection, making it ideal for the wash-down area in the food industry.

Reliability Thanks to Robustness

Thanks to its robust stainless steel housing, the wintec is resistant to oils and coolants, as well as impacts, and is therefore particularly durable. This makes it ideal for use in harsh industrial environments.

Absolute Resilience

The wintec can efficiently withstand frequent and intensive cleaning with aggressive cleaning and disinfecting agents – even with high-pressure cleaning up to 100 bar and a water temperature of 80 °C.
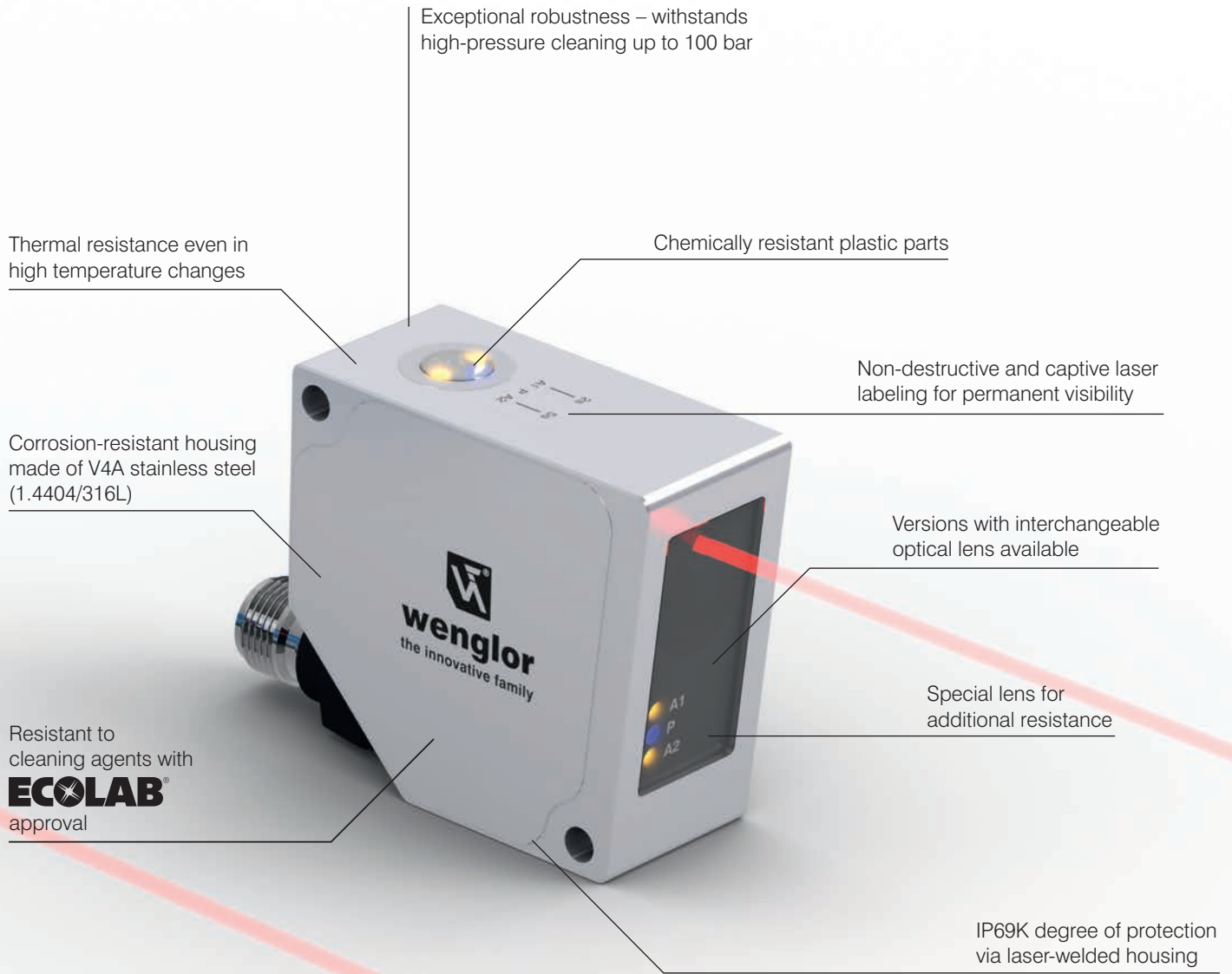
der wintec. Other Features.

Illuminated teach-in key

Extremely user-friendly thanks to simple operating concept

Short warm-up time for immediate readiness

Fine laser beam with laser class 1

Flexible connection thanks to 270° rotatable plug

Front LEDs for built-in installation

Flush and flexible installation thanks to nuts that can be inserted in the housing

weGreen

Efficient power consumption saves resources

Operates reliably from a temperature of −40 °C

Exceptional robustness – withstands
high-pressure cleaning up to 100 bar

Thermal resistance even in
high temperature changes

Chemically resistant plastic parts

Non-destructive and captive laser
labeling for permanent visibility

Corrosion-resistant housing
made of V4A stainless steel
(1.4404/316L)

Versions with interchangeable
optical lens available

Special lens for
additional resistance

Resistant to
cleaning agents with
ECOLAB®
approval

IP69K degree of protection
via laser-welded housing

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A1
P
A2

der wintec. Technical Data.

- Working range 50 mm to 10,000 mm
- Reproducibility max. 3 mm
- Linearity deviation 10 mm
- Measuring rate 500/s
- Dimensions 50 × 50 × 20 mm
- IO-Link 1.1

IO-Link

Type	Output	Connection	Acceleration sensor
P1PY101	2× PNP switching outputs	M12 plug, 5-pin	—
P1PY102	2× PNP switching outputs	Cable end M12, 5-pin	—
P1PY103	2× NPN switching outputs	M12 plug, 5-pin	—
P1PY104	2× NPN switching outputs	Cable end M12, 5-pin	—
P1PY107	Analog 0…10 V	M12 plug, 5-pin	—
P1PY108	Analog 4…20 mA	M12 plug, 5-pin	—
P1PY111	2× PNP switching outputs	M12 plug, 5-pin	✓
P1PY113	2× NPN switching outputs	M12 plug, 5-pin	✓

Other sensors with wintec are also available in other housing formats.
Find out more now at **www.wenglor.com**.

- Working range 50 mm to 10,000 mm
- Reproducibility max. 3 mm
- Linearity deviation 10 mm
- Measuring rate 500/s
- Dimensions 50 × 54.7 × 25 mm
- IO-Link 1.1

Type	Output	Connection	Acceleration sensor	Interchangeable optical lens
P2PY101	2× PNP switching outputs	M12 plug, 5-pin	✓	—
P2PY103	2× NPN switching outputs	M12 plug, 5-pin	✓	—
P2PY105	2× PNP switching outputs	M12 plug, 5-pin	✓	✓
P2PY106	2× NPN switching outputs	M12 plug, 5-pin	✓	✓
P2PY107	Analog 0…10 V	M12 plug, 5-pin	✓	—
P2PY108	Analog 4…20 mA	M12 plug, 5-pin	✓	—

wenglor's product range also includes other highlights in the 1P/P housings.
Find out more now at **www.wenglor.com**.

# wintec Sensors with DS Technology.

Performance Explained Simply.
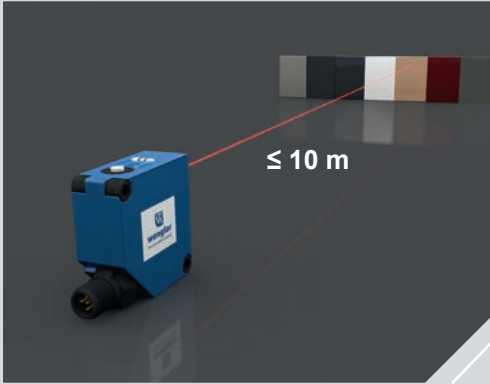
**Superior Detection and Reproducibility
up to 10 Meters**

≤ 10 m

Various objects with matt, glossy, black to white or transparent surfaces are detected with a reproducibility of **just 3 millimeters** at distances of up to **10 meters.**
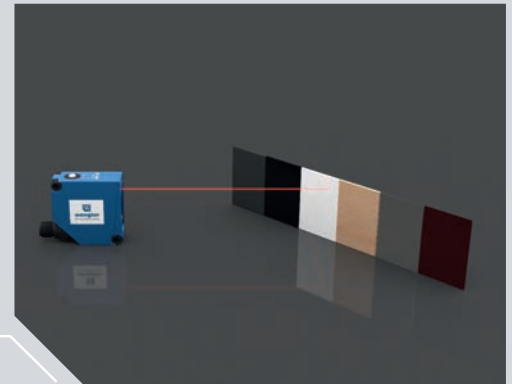
Unrivaled Detection at an Angle

The DS technology reliably detects white, black, glossy, matt or reflective objects even from **large angles**.
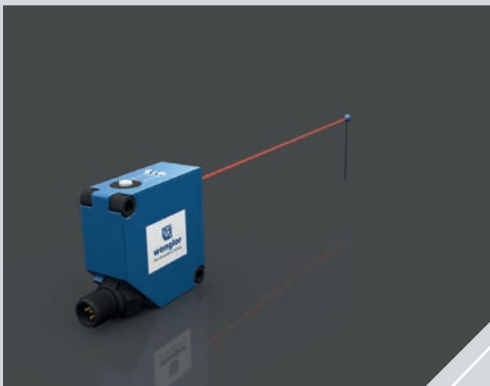
Reliable Detection of the Smallest Parts from Large Distances

Thanks to the fine laser beam, even the **smallest objects** of just a few millimeters in size can be detected from large distances.

Insensitive to Ambient Light of up to 100,000 lux

Sensors with DS technology are immune to interfering ambient light of up to **100,000 lux.** The sensors operate reliably even in sunlight or bright laboratory environments.
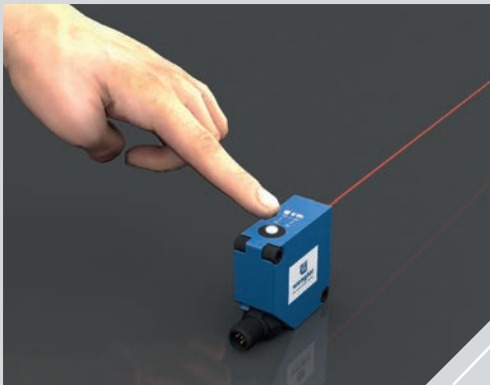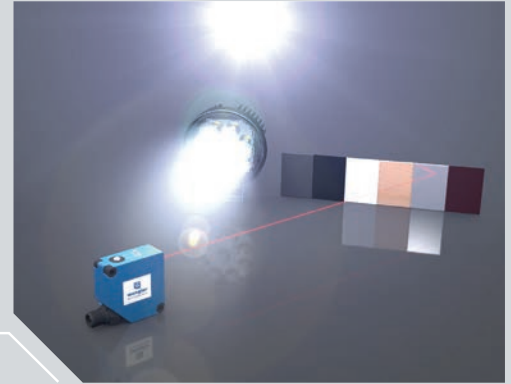
Easy Teaching by Simply Pressing a Button

wintec sensors are configured uniformly and intuitively at the touch of a button. **The illuminated teach key is pressed for 2 or 5 seconds** to teach in the two switching points (digital variants) or to define the analog characteristic curve (analog variants).

Extensive Status Messages

wintec **monitors itself continuously via IO-Link** and outputs this information via numerous status messages. This means that information on temperature or ambient light influences is permanently available. The sensor also detects if its lens is dirty and provides information for preventive maintenance.

Hiding Interferences

External environmental conditions such as **fog, dust or sawdust** can be **hidden** by DS technology. The sensors are therefore also suitable for outdoor use.
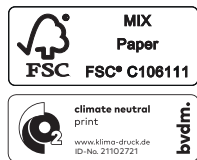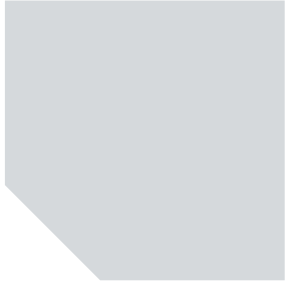
Reflective or Glossy Objects in the Background Can Be Reliably Hidden from View

Reflective or glossy surfaces in the background, such as **high-visibility vests and galvanized or glossy sheets** are hidden by DS technology.
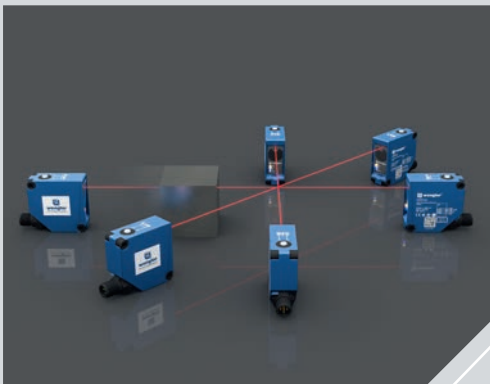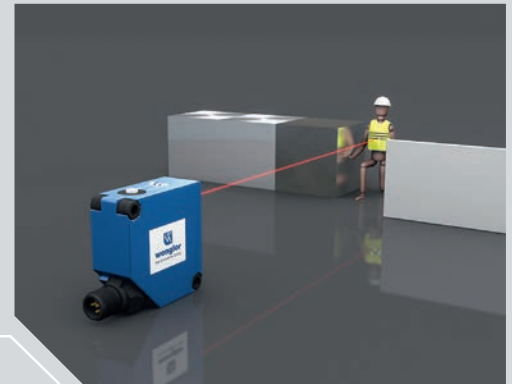
No Mutual Interference

Up to **6 sensors** can be mounted **directly next to each other** or opposite each other without influencing each other or distorting the measurements**.**

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