Pulse Generator for the Industry
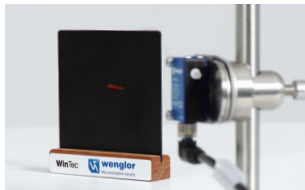
Transit Time Sensors from wenglor

Pioneering

in the Field of Optical Sensor Technology
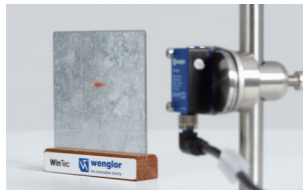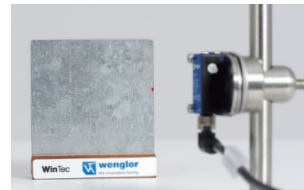
WinTec: wenglor Innovation

Reliable detection of all objects
WinTec also detects objects with black surfaces, even in extremely inclined positions.

Reliable for glossy surfaces
WinTec is insensitive to gloss in the background and assures reliable switching performance for reflective surfaces and reflectors within the working range.

Quick and accurate detection of edges
Edges are even accurately detected at high process speeds. This is assured by the small laser spot and the high switching frequency of up to 1000 Hz.

As an internationally established technology leader for individual sensor concepts and series applications, wenglor's products are unparalleled with regard to **quality, precision and performance**. Amongst others, these include High-Performance Distance Sensors which function in accordance with the transit time measurement principle and make use of trailblazing technological solutions that detect objects regardless of color, degree of gloss, surface characteristics and inclination angle.

Protection against reciprocal influence
WinTec makes it possible to install sensors directly next to each other, and even directly opposite each other, without any reciprocal influence.

Use at extreme temperatures
Transit Time Sensors with WinTec are switched and perform measurement flawlessly even at extreme temperatures of down to −40° C.

Responding Quickly and Precisely

Even at Distances of up to 1000 mm
and in Extremely Inclined Positions

Where checking for presence and position monitoring in tight spaces are concerned, **the world's smallest Transit Time Sensor**, namely the P1KY001, is distinguished by its minimal housing size and, relative to its compact format, an enormous working range of 1000 mm. The high-performance triple-dot laser even detects black and glossy objects with unsurpassed precision at a switching frequency of 1000 Hz.

- Miniature format: $22 \times 32 \times 12$ mm
- Working range: 0 to 1000 mm
- 2 switching outputs (antivalent)
- Switching frequency: 1000 Hz
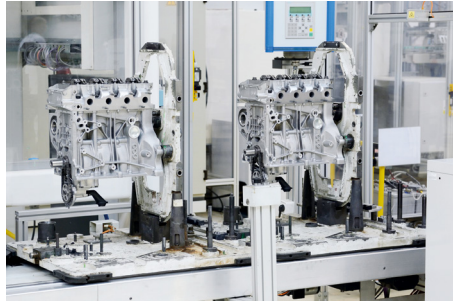- Temperature range: -40 to $+50°$ C

WinTec
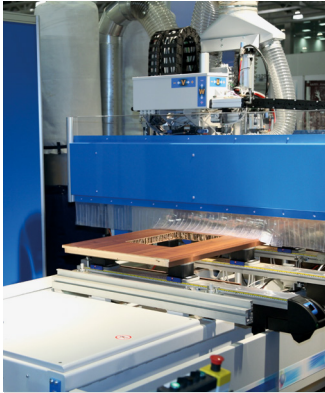
Woodworking Industry
Transit Time Sensors with WinTec accurately detect the edges of wooden panels, even at high process speeds.

Automotive Industry
At manual workstations as well as in fully automated assembly systems, Transit Time Sensors with WinTec check for the presence of objects and conduct position monitoring tasks.

Logistics
Integrated into shuttles, the sensor with dimensions of just $22 \times 32 \times 12$ mm detects objects regardless of color and surface characteristics, as well as degree of gloss and angle.

Newest laser technology: triple-dot laser
– Homogenous light spot
– Laser class 1
– Precise object detection
– Very good edge definition

LED display
for power, switching status and error diagnostics

270° potentiometer
for simple, retraceable adjustment

Working range
1 000 mm

More information about the product at:
www.wenglor.com

WinTec. The Original.

WinTec type OY2P303A0135 and OY1P303P0189 sensors are amongst the world's highest performance Transit Time Sensors. Their reliable switching and measuring performance is even assured with glossy and light-absorbing surfaces at distances of up to 3000 mm and in extremely inclined positions. These unique capabilities for the implementation of a great variety of applications make them indispensable in all types of automation.

WinTec

OY2P303A0135
for reliable switching

- Working range: 0 to 3000 mm
- 2 switching outputs (antivalent)
- Switching frequency: 1000 Hz
- Teach-in function

OY1P303P0189
for precision measurement

- Working range: 50 to 3050 mm
- Analog output (0 to 10 V/4 to 20 mA) and 2 independent switching outputs
- Switching frequency: 250 Hz
- RS-232 interface
- OLED display

Plastics Industry
Plastic bottles in inclined positions with reflective surfaces are reliably detected and counted by WinTec Transit Time Sensors.

Packaging Industry
Several Transit Time Sensors detect products before they're inserted into the packaging and further transported.

Tyre Industry
Whether checking for presence or position monitoring is involved: sensors with WinTec efficiently control the production of vehicle tyres.

Compact design
(50 × 50 × 20 mm)

Temperature range
−40 to +60° C

Laser class 1
emitted light can be switched off

LED display
for power, switching status and contamination

More information about the product at:
www.wenglor.com

Shaping **Industry**. Witnessing the **Future**.

Transit Time Sensors with IO-Link or Industrial Ethernet interface make tomorrow's industry applications possible today. Intelligent sensors transmit information concerning position, presence and completeness of the respective objects to other system participants. OY2TA sensors with Power over Ethernet significantly reduce wiring effort by using just a single cable for supply power as well as for data transfer.
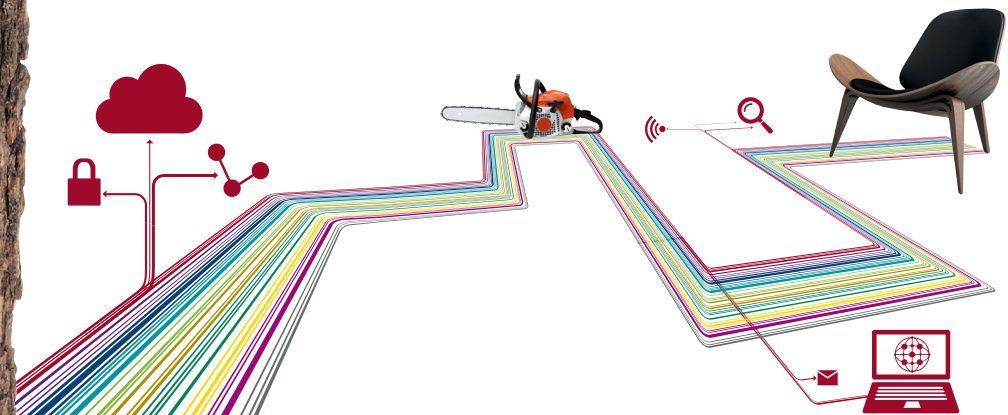
OY1P303P0102

- Compact dimensions:
  $50 \times 50 \times 20$ mm
- Working range: 0.05 to 3.05 m
- 2 independent switching outputs
- Analog output (0 to 10 V/4 to 20 mA)
- IO-Link interface
- Switching frequency: 250 Hz
- Temperature range: -40 to $50°$ C

OY2TA104P0150x

- Compact dimensions:
  $55 \times 81 \times 30$ mm
- Working range: 0.1 to 10.1 m
- Power over Ethernet
- Integrated web server
- PROFINET, EtherNet/IP™
  or EtherCAT interface
- IP68 protection

Logistics

Autonomous transport vehicles move goods reliably from A to B in the smart factory. Transit Time Sensors with WinTec assure that the vehicles approach the loading stations safely.

Automotive Industry

Transit Time Sensors accurately measure stack height while car doors are being stacked. As soon as a certain height is reached, the sensors transmit a signal to the controller.

Printing and Paper Industry

Transit Time Sensors are used in automated printing systems for web break and slack monitoring.

OLED display

IO-Link

EtherNet/IP

EtherCAT

WinTec

PROFINET

Ready for Industrie 4.0

More information about the product at:
www.wenglor.com
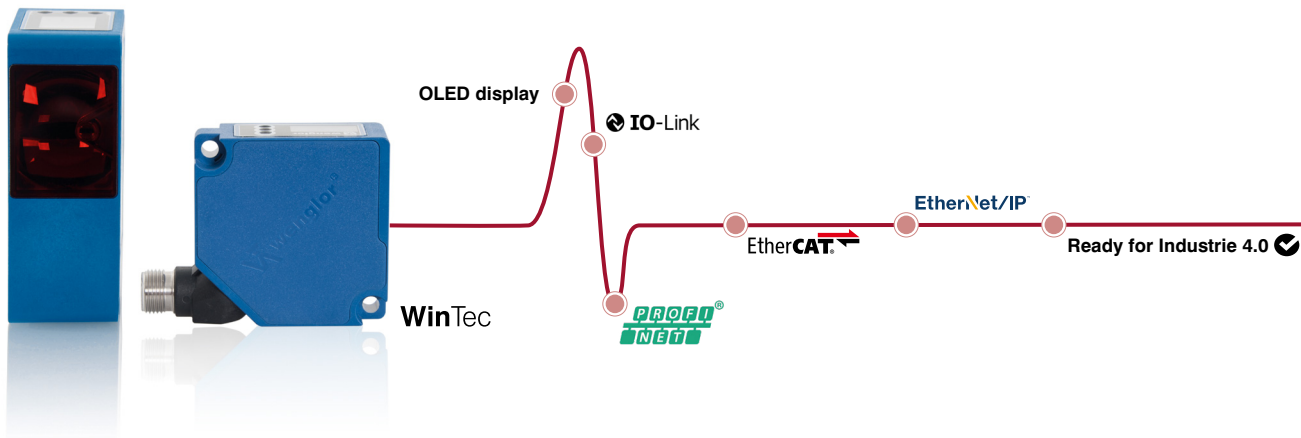
Precision Over Long Distances

wenglor's high-performance Transit Time Sensors are switched and conduct measurements at distances of up to 100 meters. Even at great distances, color, shape and surface characteristics of the object have no influence on measurement results. Even dark objects are reliably detected at considerable distances. Emitted light can be switched off in a targeted fashion for specific process steps in order to assure safety and error-free production. For example, this makes it possible to mount the sensors on moving parts of robots.

OY1TA/Y1TA
- Working range: 0.1 to 10.2 m
- Laser class 1 or 2

X1TA
- Working range from
  0.1 to 100.2 m with reflector
- Laser class 1

Metalworking Industry

Transit Time Sensors measure the diameter of the aluminum coil during the uncoiling process. The sensor transmits a signal to the controller as soon as the actual diameter is less than the specified tolerance.

Woodworking Industry

Type Y1TA Transit Time Sensors measure wooden panel stack-height regardless of color and surface characteristics.

Automotive Industry

Transit Time Sensors monitor the distance between the skids on an electric overhead conveyor and transmit signals to the controller in order to slow down or stop motion.

OLED display

Analog output
(0 to 10 V/4 to 20 mA)

2 independent switching outputs
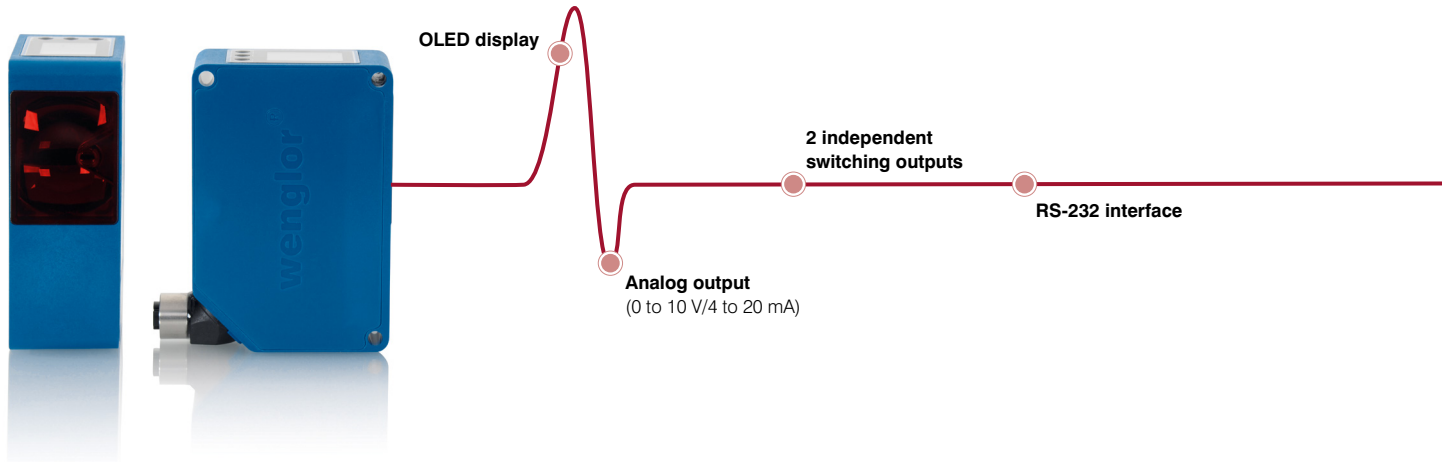
RS-232 interface

More information about the product at:
www.wenglor.com

	Upper Range Limit	Interface
1K housing	1500 mm	IO-Link
1K housing	1000 mm **Win**Tec ✓	IO-Link
1P housing	3050 mm **Win**Tec ✓	IO-Link RS 232
TA housing	10,100 mm **Win**Tec ✓ 100,000 mm	RS 232 Profinet EtherCat EtherNet/IP™
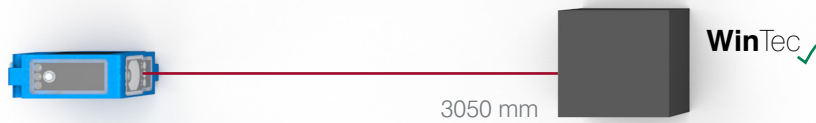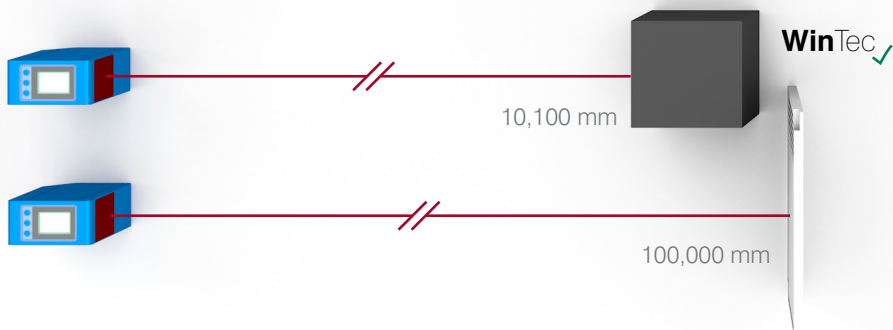
| Connection Type	Switching Output	Light Source	Spot
Plug: M8 × 1 Cable end: M12 × 1	2 ea., programmable	Laser (infrared) class 1	Dot
Plug: M8 × 1 Cable end: M8 × 1 Cable end: M12 × 1 Cable: 2 m	2 ea., antivalent 2 ea., programmable	Laser (red) class 1	Triple dot
Plug: M12 × 1 Cable end: M12 × 1	2 ea., antivalent 2 ea., programmable Configurable analog output	Laser (red) class 1	Dot
Plug: M12 × 1	2 ea., antivalent 2 ea., programmable Configurable analog output Industrial Ethernet	Laser (red) class 1	Dot
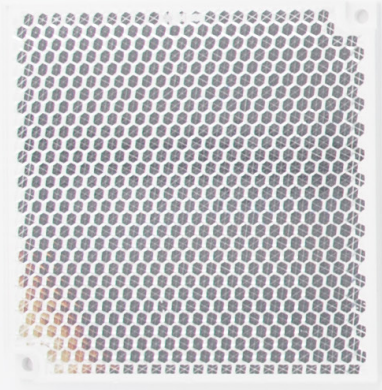
wenglor **System Components**

wenglor System Components are used to mount, integrate and connect Transit Time Sensors. In order to meet demanding requirements for durability and hygiene, protective housings additionally expand the range of applications and increase system availability.

wenglor

the innovative family

TTS_BROCH_EN