

New Products

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The Game Changer for Transit Time Technology Innovative Laser Distance Sensors with wintec Set New Standards

New year, new standard: Just in time for the beginning of the year, wenglor sensoric has released its latest generation of long-range laser distance sensors with wintec and has thus redefined the performance limits of photoelectronic sensors. The transit time sensors available in plastic or stainless steel 316L housing have not only been given a comprehensive increase in performance thanks to the integrated “Dynamic Sensitivity” technology (DS), but also combine all the features of the popular wintec series, which has been revolutionizing the automation industry since 2009.

A working range up to 10,000 mm, maximum reproducibility of 3 mm, insensitive to ambient light up to 100,000 lux – the new wintec offers this and many other highlights. But wintec isn't just impressive in terms of performance: Thanks to the latest IO-Link 1.1 standard with COM3, process data can be written, numerous status messages such as temperature or ambient light warnings can be called up and even impact and shock loads can be recorded. “In addition to optical performance, wintec also offers ingenious options for process monitoring – condition monitoring is the key word here”, explains wenglor product manager Christoph Lang.

Dynamic Sensitivity (DS): A Sensitive Sensory Organ Becomes Even Stronger

While this may sound so human, it is actually the result of intensive research and development work in transit time sensors. The sensor emits very short light pulses in the nanosecond range, with signals that are statistically evaluated and thus produce the distance to the object. Even with very weak signals, the sensor generates precise measurements. “This is the only way to achieve a working range of up to 10,000 mm while improving reproducibility to just three millimeters over the entire working range of the sensor”, says Christoph Lang. “The sensor is also immune to interference from natural or artificial ambient light up to 100,000 lux.” Added to this is the fact that other sensors in the immediate vicinity or contamination in the working range do not influence the performance of the sensors – thanks to DS technology. “With this sensor, any object – black or shiny – can be taught in at any angle within up to ten meters at the touch of a button. Customers only want to teach in a sensor once, then it should work reliably. And that’s exactly what wintec does!”, Lang explains.

Transit Time Technology with High-performance Equipment

Long-range laser distance sensors with wintec detect objects based on the principle of transit time measurement, regardless of their color, gloss, surface structure and inclination angle. The sensors can be installed next to each other or even opposite each other without influencing each other. This capability, which has made wintec (“wenglor interference-free technology”) one of the most popular photoelectronic sensors in the automation industry since 2009, is now an essential part of every industry. But the new generation can do much more: The teach-in key is illuminated, enabling optimal visibility and operability, even in dark environments.

The sensors also work reliably from temperatures of –40 °C, have a very short warm-up time and LEDs on the front for integrated installation in shuttle systems, for example. Simple operation and low power consumption compared to conventional transit time sensors enable significant time and cost savings for users.

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Plastic or Stainless Steel Housing: Suitable for Any Industry

Thanks to a version in corrosion-resistant stainless steel 316L housing (1.4404) with ECOLAB approval, the sensors are also suitable for use in the food industry. "High-pressure cleaning up to 100 bar and water temperatures up to 80 °C in the wash-down range are possible thanks to laser-welded IP69K housing and chemically resistant plastic parts", continues Lang. "wintec is not only setting new standards for optical performance, but also offers numerous functions and features that are indispensable for modern automation processes. This complete package makes us unique on the market!"

The Highlights at a Glance

- Working range 50 mm to 10,000 mm
- Highly insensitive to ambient light up to 100,000 lux
- Reproducibility of max. 3 mm
- Available in plastic or stainless steel 316L housing (IP69K)
- Dimensions of plastic housing 50 x 50 x 20 mm
- Dimensions of stainless steel housing 50 x 54.7 x 25 mm
- Reliable detection of black, shiny, reflective or transparent surfaces thanks to DS technology
- No reciprocal influence
- Measurement rate of 500 measurements per second
- Laser class 1
- IO-Link 1.1 standard with COM3
- Writeable process data
- Built-in acceleration sensor
- Illuminated teach-in key
- Short warm-up times for immediate readiness

Approximately 4,315 characters

Text: Fabian Repetz, wenglor

Image: wenglor

Captions

Impressive performance: The new transit time sensors with wintec reliably detect objects at distances of up to 10,000 mm.

About wenglor sensoric GmbH

wenglor develops innovative automation technologies, such as sensors, security and 2D/3D camera systems with state-of-the-art communication standards for the global market. Founded as a two-man business in 1983, the family company has since evolved into one of the most important international sensor suppliers with more than 850 employees around the world. The company with headquarters on Lake Constance in Tettngang, Germany, meets industrial automation challenges for customers in all industry sectors – from automotive manufacturing to the packaging industry. More than 55,000 customers from 45 countries all over the world are already placing their faith in wenglor's innovative products.