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P1PM Reflex Light Barrier Expands PNG//smart Product Portfolio
Object-Independent Detection without Additional Reflector

The wenglor sensoric group is expanding its PNG//smart portfolio in the field of optoelectronics with the P1PM reflex light barrier. The P1PM reflex light barriers work based on an innovative detection method that records back-scattered light intensity and distance. The sensors use red LED light to detect objects contactlessly, regardless of color, surface finish and shape. They are taught to any reference background via teach-in. Reliable detection of glossy, uneven and even semi-transparent objects is therefore achieved – without an additional reflector.

The P1PM reflex light barriers, which are available in a total of four variants, are particularly impressive due to their versatile applications. Thanks to their combined detection principle, the reflex light barriers determine the intensity of the backscattered light as well as the distance of the light spot to a previously taught-in reference background. As a result, distances and surface finishes are reliably detected up to one meter, regardless of color, shape and surface finish. Detection without a reflector offers further advantages: The sensor can be mounted in places where there is no space for a reflector. Reflector-free installation also enables considerable time and cost savings. This avoids system downtimes due to dirty or defective reflectors.

High Process Reliability in Different Working Environments
The P1PM reflex light barriers impress with two separate teach-in modes: They can be taught on both a static and a moving reference background. Parameterization via IO-Link allows both operating modes of the PNG//smart reflex light barriers to be set. This means that the sensor can be adapted easily and individually to the respective application. The reflex light barriers detect objects even if they are located directly in front of the sensor optics, as they work without a blind spot. The P1PM reflex light barriers easily master challenging circumstances such as a dirty background or strong vibrations. This is because the built-in dynamic readjustment also compensates for gradual changes in the background without the need for a new teach-in.

The Highlights at a Glance:
- Non-contact object detection using LED red light, regardless of the color, shape and surface finish of the object without an additional reflector
- Reliable detection of glossy, uneven and even semi-transparent objects
- Innovative detection method combines distance and intensity detection
- Four variants with two separate operating modes: Teach-in on static and moving reference background
- Dynamic readjustment for reliable detection
- IO-Link 1.1 for simple parameterization and integration
- No blind spot

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Captions

With the PNG//-smart P1PM reflex light barrier from the wenglor sensoric group, glossy, uneven and semi-transparent objects can be reliably detected – without an additional reflector.

About the wenglor sensoric group

The wenglor sensoric group develops innovative sensors, safety systems and machine vision products with intelligent interfaces and software for industry all over the world. Founded in 1983, wenglor is one of the world's key high-tech providers for the automated industry. The solutions of the wenglor sensoric group enable the trends of Industry 4.0 as well as the Internet of Things, 3D technologies, robotics and artificial intelligence (AI). In doing so, they conserve resources and increase the quality and safety of the manufactured products. The second-generation owner-managed family business is represented worldwide with 28 subsidiaries in 53 countries. In addition to the company headquarters in Tettnang, the group of companies with over 1,100 employees also develops and produces its multi-patented products in Munich, Berlin, Sibiu (Romania), Perth (Scotland), La Chevrolière (France) and Belgrade (Serbia).