

A press release by SensoPart Industriesensorik GmbH, Gottenheim near Freiburg/Breisgau, Germany

High-performance subminiature blue light sensor for all types of detection tasks

With its long range and two switching outputs, SensoPart's new BlueLight subminiature sensor FT 10-BHD is suited to an extensive range of applications, while offering extremely compact dimensions.



The South German manufacturer SensoPart was one of the first to launch optoelectronic sensors with BlueLight technology and now has the most comprehensive portfolio of BlueLight sensors in four different sizes. The latest addition to the family is the FT 10-BHD subminiature photoelectric proximity sensor, whose performance characteristics are unique for its dimensions: the BlueLight subminiature sensor not only has the longest range on the market – 150 mm on white/grey and 120 mm on black – but also comes with an adjustable scanning range instead of the standard fixed focus, as well as two independently adjustable switching outputs.

In other sensors, a second switching output is often employed for cable break detection and is permanently set to "antivalent". Although this option exists with the FT 10-BHD, it is possible to use the second output for other purposes – for example, to specify a second switching window. As a result, not only can the presence of an object be detected, but also whether it is positioned at an angle to the detection plane. In the case of two different objects, the sensor can distinguish whether both are present or only one or none at all. As the second output is IO-Link compatible, it can also be utilised for setting sensor parameters or retrieving diagnostic data, while the first output handles fast data transmission.

Detect-All mode for stable object detection

"Detect-All" is an extremely reliable operating mode for checking the presence of parts. The FT 10-BHD is taught using a reference object (e. g. the background) around which a switching window is set. This eliminates a blind zone that would otherwise measure a few millimetres. The sensor can subsequently detect changes in distance to the taught reference and can, for example, distinguish objects of different heights. The energy value is also evaluated, making it possible to determine greater deviations in contrast or color. Able to detect any difference from the taught-in reference, the sensor therefore still switches reliably when the transmission beam is reflected by a difficult target object – e.g a metallic tip or a corrugated object.

Thanks to the blue light beam, a stable detection process is possible even with strongly light-absorbing or shiny objects, where conventional red-light sensors reach their limits. For example, a glossy black mobile phone screen is still reliably identified from inclinations of up to 40°, while a comparable red-light sensor only permits a detection angle of 5-10°. This high detection efficiency, combined with an operating range and functions that are exceptional for its class, make FT 10-BHD a unique solution, ideal for an extensive range of automation tasks, e. g. in the assembly and handling sector. With its tiny dimensions (21 × 14 × 8 mm³), the subminiature sensor takes up little space and can be installed in close proximity to the process – even fitted directly on a robot gripper.

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About SensoPart Industriesensorik GmbH

SensoPart develops, produces and sells a wide range of innovative sensors for factory automation. The main focus is on optoelectronic sensors and camera-based vision sensors, which are used in industrial applications - e. g. for object or color detection, distance measurement, code reading or in robotics. The company's products are developed and manufactured in Germany, at the plants in Gottenheim, near Freiburg-im-Breisgau, and Wieden in the southern part of the Black Forest. With four subsidiaries and a network of 40 international sales partners, SensoPart is present worldwide.

Founded in 1994, the family-run company is synonymous with flexibility and stands for innovative and high-performance products. SensoPart has received numerous distinctions for its work, for example 1st place in the Automation Award and is multi-time winner of the German Sensor Application Prize.

For further information about SensoPart, visit www.sensopart.com.