

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

## Light barrier without reflector

SensoPart adds a new model to its extensive family of F 25 miniature sensors: the new photoelectric sensor with foreground suppression offers the same process reliability as a retro-reflective light barrier, but without the need for a reflector. The integrated scanning zone function enables precise adjustment of the detection area so that unwanted objects are suppressed.



[F25\_Miniatur-Sensor\_Vordergrundaussblendung.jpg]

The functional principle of SensoPart's F25 proximity switch with foreground suppression is comparable to that of a retro-reflective light barrier. The difference being that instead of installing a reflector, a fixed background at a set distance is used as a reference point - in other words as a virtual reflector. Geometrical distance measurement (triangulation) ensures that any object can be reliably detected regardless of its shape, colour, material and surface finish. It also masks ambient interference. The proximity switch functions just as reliably as a conventional retro-reflective light barrier - installation is however considerably less complex as there is no need to install a reflector.

Once the reference background has been taught, all objects situated between the sensor and background are detected within a scanning range of 200 mm. Alternatively, the sensor can be set up with the aid of the integrated scanning zone function so that only objects within a certain distance range are considered during detection. For example, this makes it possible to simply suppress interfering parts situated between the sensor and target object - i.e. a robotic

gripper or other moving machine parts. This function can also be used to select objects according to their height.

## Standardised operator comfort

Like all sensors from Sensopart's F 25 series, the new proximity switch offers a high-level of user comfort. This includes flexible dovetail installation, teach-in via key or control cable and an auto-detect function. The latter automatically adapts the switching outputs (N.O. or N.C) to the available output circuit so that only one sensor type is required for different applications. A N.O or N.C. switching output can also be permanently set. The new F 25 sensor is equipped with a hermetically sealed plastic housing (IP 69K and IP 67). Its miniature design (34 x 20 x 12 mm<sup>3</sup>) makes installation and set-up easy in cramped spaces.

The new proximity switch from the F 25 series has an application range comparable to that of a retro-reflective light barrier and can replace it in many situations. The proximity switch solution is a simple and cheaper alternative for applications in which installation of a reflector is difficult or impossible. The only requirement is a fixed background - e.g. a metal plate or a plastic machine cover - which can be used as a reference point. Typical applications are detecting the presence of different objects, such as printed circuit boards or envelopes, and sorting components or packaging with different heights.

The new proximity switch with foreground suppression **FT 25-RV** is now immediately available.

More information is available on [www.sensopart.com](http://www.sensopart.com)

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### **SensoPart Industriesensorik GmbH**

The sensor manufacturer Sensopart, based in Wieden near Todtnau, and also in Gottenheim near Freiburg since 2001, develops, produces and sells sensors for industrial applications. The main focus is on optoelectronic sensors, particularly laser sensors, which are used in so many industrial applications, and high-performance vision sensors for the detection of objects, colours or data matrix codes. The past years have been marked by a strong growth in turnover and the regular launch of new, innovative products. Sensopart has received several distinctions for its work, for example the Dr. Rudolf-Eberle Prize, 1st place in the Baden-Württemberg Prize for the Promotion of Young Companies, and has been awarded the German Sensor Application Prize several times. Further information can be found online under: <http://www.sensopart.com>.