

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

Reliable measurement of long distances: time-of-flight sensors with 70 m range.

SensoPart's F 55 sensor family has welcomed a new addition: the compact FR 55 distance sensors with time-of-flight technology offer a scanning range of up to 70 m - the best in their performance class - along with a high level of repeatability, and they only require a standard reflector. Thanks to two switching outputs and an optional additional analogue output, they open up extensive application possibilities, such as collision protection for conveyor shuttles or use in the positioning of high bay stackers in warehouses.



The new distance sensors are available in two different versions: FR 55-RLP is equipped with two switching outputs with a window function; FR 55-RLAP also comes with an additional analogue output. Up to four switching points can be defined, whose functionality can be enhanced through appropriate mapping or logical combination. It is possible, for example, to set up different proximity ranges for speed control of automated guided vehicles (AGV).

The analogue characteristic curve of FR 55-RLAP is scalable so that any section of the measuring range can be selected between 0.3 and 70 m. An outstanding switching point

repeatability of 10 mm can be achieved within a measuring window of up to 20 m. The blind area is just 300 mm, which is minimal for a sensor with this range capacity.

Despite their long range, sensors from the FR 55 series have a very compact design (housing dimensions 50 x 50 x 23 mm) and only require a standard reflector. They also operate with laser safety class 1 which presents no hazard to the eye, enabling easy integration in an installation.

Time-of-flight measurement: reliable detection of long distances

Short laser light pulses are emitted with time-of-flight measurement and the time that elapses until the reflected light is received by the reflector is then evaluated. This procedure enables extremely reliable detection and long scanning ranges. Typical applications of retro-reflective distance sensors with time-of-flight technology are e.g. positioning of high bay stackers or collision protection for conveyor shuttles and automated guided vehicles.

Proximity switches with scanning ranges up to 5 m (FT 55) are also available in the same series and sensor size as the time-of-flight sensors with a reflector. All sensors in SensoPart's F 55 family are characterised by a hermetically-sealed plastic housing (IP67 and IP6PK) and a standardised teach-in operating concept.

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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 at: <http://www.sensopart.com>.