A world's first: compact sensor for perceptive color recognition in industry automation

Silicann expands product line of perceptive color sensors

Besides the industry automation proven perceptive color sensor PCS-II Silicann Technologies is now offering its „little brother" PCS-I. It is about a 3-channel compact color sensor including a fixed optic. The device is fully software compatible to the PCS-II.

Silicann Technologies is therefore closing the gap between already existing simple compact color sensors and highly-developed fiber optics based color sensors. Due to its outstanding functionality compared with existing devices Silicann is defining a new class of color sensors – compact sensors for perceptive industrial color recognition with very subtle color resolution as a consequence. Incorrect color checkings that are possible with usual RGB-sensors are eliminated with the PCS-I. Slightest color nuances can finally be recognized in the compact color sensor segment.

The integrated photodetector possesses filter curves that correspond to the ones of the human eye. The RGB signals of the photodetector are processed in the controller of the sensor. This is done by mimicking human color perception. Among others color spaces like LAB, LUV und DIN99 are implemented. In doing so the PCS-I is able to memorize up to 255 colors by software and to achieve scanning speeds of up to 10 kHz. Without using the software 3 colors can directly be teached via the key panel on the sensor. The RGB color values are transformed in one of the true-to-perception color spaces in real time. The recognition results are provided on 3 output ports, but can also be read out via RS232. Furthermore the scope of delivery comprises LabVIEW® drivers for

Silicann Technologies GmbH
Joachim-Jungius-Str. 9
D-18059 Rostock
Telefon: +49 (381) 4059-760
Telefax: +49 (381) 4059-874
E-Mail: info@silicann.com

immediate integration in LabVIEW based automation processes. Via the RS232 interface there is the possibilty to update the firmware. By means of the master-slave function several sensors can be run synchronously. For checking self shining objects (e.g. LEDs) the PCS-I provides ambient light suppression. Moreover variations of a color (e.g. different kinds of green) can be pooled to a group and be recognized as one color.

Therewith Silicann Technologies is setting new standards for the segment of 3-channel compact color sensors in industrial color processing. Its unique feature is the realisation of transformations in true-to-perception color spaces. This avoids incorrect color recognition and enables to reduce costs in process automation. In doing so the sensor is reasonably priced and absolutely precise.

You may examine the new PCS-I from Silicann Technologies at the SPS/IPC/DRIVES 2006 in Nuremberg (Germany) from November, 28. – 30. There you will also get more detailed information. We look forward to see you at our booth 761 in hall 7A.

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