Application - News

N°89 SPECTRO-3 series

Sensor Instruments — Let's make sensors more individual

1. Color mark detection on a paper banderole

A white color mark must be detected on a different colored stripe. Depended of the bank note, the stripe can have a color of e.g. yellow, brown, red, blue, green, violet and grey. The product runs with a maximum speed of approximately 10 m/s and the size of the color mark is about 6 mm x 4 mm. The sensor should deliver precise information about the position of the white color mark. For the investigations a color sensor **SPECTRO-3-FIO-CL** in connection with an optical fiber **R-S-A2.0-(2.5)-600-67**° is used. The distance from the optical fiber head to the color mark is around 5 mm and the spot size at this distance is about 3 mm. The system runs in the **STAT1** external teach mode, at this the color stripe will be taught at color position 0 via a digital signal from a PLC, whereas the white color mark is taught by software at color position 1. Thus, an easy adjustment during the product change from one color to another color is possible. The color sensor comes with a scan frequency of about 10 kHz at AC, AVE 1 and AMP7, which allows a precise triggering, even with a product speed of 10 m/s.