

## High-speed color sensor with integrated gloss suppression

Color inspection of glossy objects primarily depends on correct illumination. For example, when directed light is used, i.e. light that is directed onto the object at a certain angle, the color detector apart from the actual object color also receives influences due to direct reflection of the transmitter light depending on the gloss rate of the object. The actual object color thus is distorted due to the influence of direct reflection, the colors become smoother, red for example is recognised as pink, blue as bright blue, etc.

With the **color sensors** of the **SPECTRO-3-DIL series** the effect of direct reflection is considerably suppressed by using diffuse light, colors are detected much more clearly, and a reliable color differentiation of differently colored glossy objects is thus possible. Up to 31 color references can be stored in the sensor, and the sensor determines the color reference that comes closest to the current color sample. A true-color chip is used as color detector ("human color perception"). Inspection is performed at a scanning rate of 40 kHz and a switching frequency of the digital outputs (5 outputs) of 30 kHz. With its compact M34 aluminium housing and the glass cover of the transmitter and receiver optics the SPECTRO-3 color sensor is excellently suited for rough industrial use.

