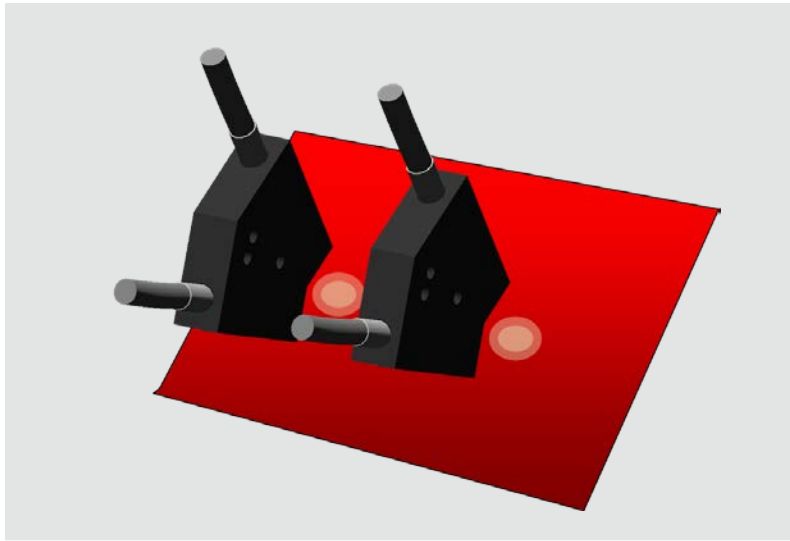




Colour comparison between parking sensor and body shell

Car attachments such as parking sensors are painted separately. However, during assembly there must be no difference in colour between the parking sensor and the bumper, which means the two colours must be identical. The colorSENSOR LT-2-DU sensor from Micro-Epsilon enables a direct colour comparison between the parking sensor and the rear bumper.

The colorSENSOR LT-2-DU consists of two colour sensors. The integrated electronics carry out a logical evaluation. They define, for example, the maximum difference between the two colours of the colour sensors or channels. For the customer this means that no further evaluation is required. The sensor issues a 'NOK' signal if the colours differ and an 'OK' signal if the colours are identical.

The same measurement system can be used for comparing the colours of other car attachments, e.g. cover of the headlight washer nozzles vs. bumper, mirror vs. body shell, body shell vs. bumper.

Advantages

The colours don't have to be taught to the sensor. The user simply needs to define the maximum colour difference between the two colour channels.

Requirements for the measurement system

- Measurement target: painted, shiny, curved surface
- Measuring range: distance between the KL-D-40 focus optics and the measurement target: 20mm $\pm$ 5mm
- Accuracy: $\Delta E \geq 0.8$
- Operating temperature: -10°C to +55°C
- Entire colour spectrum of automotive industry

Ambient conditions

Reliable colour detection is guaranteed if the ambient light level is 5000 lux or less.

Sensors

- colorSENSOR LT-2-DU
- 2x FAD-M-A2.0-2.5-1200-67°
- 2x focus lens type KL-D-40