



1. Height control of labels with a transparent plastic covering

The distance of labels with an optical transparent plastic cover should be measured with an accuracy of 0.1mm. For this task a laser displacement sensor type **L-LAS-LT-55-RA-HS** with a scan frequency of about 600 Hz and an accuracy of approximately 5µm will be used. The

measurement range is about 10mm and the reference distance is 55mm of this model. The laser sensor is arranged in the direct reflection way, thus the line scan detector get a signal via the receiver optics from the transparent plastic layer. As shown in the screen shots, more than one peak can occur on the receiver side due to an additional reflection from the printed layer of the label and even a third peak can be observed in the case of multi reflection on the respective surfaces. But with the "left edge mode" for the evaluation just the first (left) edge is of interest and will be used for distance calculation. Due to this mode, the laser displacement sensor delivers a proper result.

