



1. Cigarette filter position detection

The position of the filter segments, which are made for cigarettes, should be precisely detected, even at a high speed of a few m/s. For this purpose a contrast sensor type **SPECTRO-1-FIO-IR** in connection with an optical through beam fiber type **D-S-R1.1-(3x0.5)-1200-67°** and two frontends type **KL-5-R1.1**, for the transmitter and the receiver, respectively, will be used. The distance of the frontends to the filter surface is approximately 15mm (for both frontends), the spot size and the detecting range in each case at this distance is around 2.5mm x 0.4mm. The filters can be properly detected as shown in the screen shots.

