



1. Liquid level control from liquid in semi transparent tube

The liquid level should be controlled with an optical system. At this, there are different kinds of liquids possible: water, detergent and milky liquids. The tube is always the same: semi transparent. It should be taken into account, that neither foam nor liquid film should influence the detection of the liquid level. For this purpose a color sensor type **SPECTRO-3-FIO-JR** in connection with an optical through beam fiber type **D-S-A2.0-(2.5)-1200-67°** and a fork type **C-MOUNT-A2.0-180°-22/50** are used. The width of the fork is 50mm and the optical fiber head is directed to the center of the cylindrical axis of the tube. A transparent liquid in the tube is working like a cylindrical lens, which focus the white light spot from the transmitter to the receiver side, thus the receiver signal increases. Milky liquid however absorb or stray the white light from the receiver, the signal at the receiver side decreases. As shown in the screen shots a proper detection of the liquid level of the different liquids is possible.

