



1. Detection of the presence of an oil film on a turned metal part

The presence of an oil film without gap should be controlled on a turned metal part. For this purpose a color sensor type **SPECTRO-3-30-UV** is used. At this, the sensor is inclined by an angle of 45° to the vertical axis and the distance to the object is approximately 30mm. At this distance, the detecting range of the color sensor is around 15mm.

The oil film is converting the UV light (generated from the transmitter of the color sensor) into the visible range. Thus, the intensity as well as the color of the converted light can be detected from the true color detector of the sensor.

To avoid, that the UV light can pass the receiver, the sensor is tilted to the surface; additionally the receiver side is equipped with an UV absorption glass plate.

The fluorescent oil film can be proper detected as shown in the screen shots.

