## 1. Color measurement of semitransparent plastic parts

The color of semitransparent plastic components should be measured. For this purpose a color measurement sensor type SPECTRO-3-FIO-MSM-ANA-VIS in connection with an optical fiber type R-S-A2.0-(2.5)-1200-67 as well as R-S-A2.0-(2.5)-1200-Y-67-(1P+1BP)/2P and a frontend type MOUNT-A2.0-45 ${ }^{\circ}$-10 is used. At this, the distance from the frontend (receiver side) to the object is approximately 10 mm and the receiver frontend is directed perpendicular onto the object, whereas the optical axis of the receiver is inclined by $45^{\circ}$ to the optical axis of the receiver. Furthermore, the spot size at this distance is around $6 \mathrm{~mm} \times 4 \mathrm{~mm}$ and elliptical in shape. The color of the semitransparent plastic components can be proper measured as

shown in the screenshots.


