



1. Groove and gap detection on wire-wound armature

The gaps as well as the milled grooves on wire-wound armatures should be detected during the electronic balancing process. There is normally one milled groove between two gaps. The maximum speed is around 2500 revolutions per minute. It must be distinguished between a gap, a milled groove and the normal armature background. For the detection a color sensor type **SPECTRO-3-FIO** in connection with an optical fiber type **R-S-R2.1-(6x1)-1200-67°** and the optical front end type **KL-8-R2.1** will be used. The screen shots shows that the milled grooves deliver a higher intensity (blue circles) compared to the wire-wound armature background (red circle) as well as to the gap (green circle). Therefore a proper differentiation between grooves, gaps and the background is possible.

