

Tunnel monitoring „Galleria Dragonato“

Permanent surveillance ensures the safety of railway traffic



📍 Bellinzona, Switzerland
👤 Swiss Federal Railways
🕒 2017 - 2019

Expertise

TEDAMOS

Find more information on the SwissMonitor solution under <http://en.swissmonitor.ch>

The current clearance gauge of the Swiss Federal Railway's Dragonato tunnel is not up to next-generation standards according to the ongoing "4 m corridor" program. In addition, the tunnel's structural integrity has deteriorated to the point where the long-term safety of the railway traffic is of increased concern. Consequently, an upgrade project is underway to build a new tunnel which encloses the existing tunnel walls. After completion of this work, the old tunnel structure will be dismantled.

During the work on the new tunnel, the existing tunnel structure and the temporary catenary pylons are being monitored by an automated measurement system. The relevant survey points are placed along the tunnel wall in regular cross-section profiles. Furthermore, track alignment and other critical objects on the construction site are checked by periodic manual surveys.

Our services

- ◆ Planning, installation and operation of the automated measurement systems
- ◆ Automated monitoring of the tunnel structure and catenary masts
- ◆ Manual deformation measurements of railway tracks and other infrastructure elements
- ◆ Automated alerting system at threshold exceedance: text message, siren, warning light